Independent Review

Scanning, Imaging, Data Capture, and Remittance Processing Solution

For the

State of Vermont
Vermont Department of Taxes

Submitted to the
State of Vermont, Agency of Digital Services
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FINAL

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1.0 Executive Summary

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

1.1 Introduction

This Independent Review (IR) was undertaken to evaluate the viability of and provide a recommendation to proceed or not proceed with respect to a Scanning, Imaging, Data Capture, and Remittance Processing Solution Project for the State of Vermont's (State's) Agency of Digital Services (ADS) and Department of Taxes (VDT). For all Information Technology (IT) activities over $1,000,000, Vermont statute (or at the discretion of the Chief Information Officer [CIO]) requires an IR by the Office of the CIO before the project can begin. This IR began on January 3, 2018 and is projected to conclude on or about February 28, 2018.

The subject of review is the planned acquisition of a Scanning, Imaging, Data Capture, and Remittance Processing Solution. According to the statement of work for this IR, the scope of the project is:

- Scanner hardware and software; primary location and disaster recovery
- A Technology Solution that addresses the business need(s)
- Professional Services for Project Management to manage the implementation of the technology solution
- Professional Services to perform Technical Work in support of the implementation
- An ongoing Maintenance and Support plan for solution

The VDT currently uses IBM's Intelligent Forms Processing (IFP) System to process paper tax returns and filings and BancTec hardware solution to scan, image, and process tax returns. The following scanning and remittance processing hardware is currently used, as provided in the Scanning, Imaging, Data Capture, and Remittance Processing Solution Request for Proposals (RFP) dated July 5, 2017:

- BancTec Intelliscan SDS+ – main scanner – IFP
- BancTec Intelliscan SDS – backup scanner – IFP
- Kodak i4200 (2) for re-scan – IFP
- Panini (4) for scanning checks, imaging/data capture – digital express (Bank's system)
- Opex Omation Model 206 Envelopener (1) for opening flats (envelope size up to 13.5" long and ½" in thickness)
- Opex Model 51 Rapid Extraction desk (2)

A competitive procurement for a scanning and imaging system was issued on July 5, 2017, and proposals received by August 17, 2017. An award was made the first week of January 2018 to Fairfax Imaging, Inc. (Fairfax).

1.2 Cost Summary

The following table is a summary of Fairfax costs as evaluated during the course of this IR.

Table 1-1: Cost Summary

IT Activity Life Cycle:	10 Years
Total Life Cycle Costs:	$4,400,251
Total Implementation Costs:	$1,197,354
New Annual Operating Costs:	$347,203 in Year 1 $347,863 in Year 2 $299,255 in Year 3 $302,881 in Year 4 $306,133 in Year 5 $324,912 in Year 6 $313,048 in Year 7 $316,695 in Year 8 $320,485 in Year 9 $324,451 in Year 10
Current Annual Operating Costs:	$340,757
Difference Between Current and New Operating Costs (increase in cost represented by a "+"; decrease in cost represented by a "-"):	$+6,446 in Year 1 $+7,106 in Year 2 $-41,532 in Year 3 $-37,876 in Year 4 $-34,624 in Year 5 $-15,845 in Year 6 $-27,709 in Year 7 $-24,062 in Year 8 $-20,272 in Year 9 $-16,306 in Year 10
Funding Source(s) and Percentage Breakdown if Multiple Sources:	100% State funds (Computer Modernization Fund)

1.3 Disposition of IR Deliverables

Table 1-2 - IR Deliverables

Deliverable	Highlights from the Review *Include explanations of any significant concerns*
Acquisition Cost Assessment	The acquisition of the new system will cost $1,197,354. It is planned to be paid entirely by existing Computer Modernization Funds.
Technology Architecture Review	VDT is considering a solution in use by 24 other state revenue agencies, some using the same Tax Information System (GenTax). The ADS Enterprise Architecture office has stated that this project is not considered an enterprise project.
Implementation Plan Assessment	Based on the information reviewed by BerryDunn during the independent review process, the proposed implementation plan is detailed and achievable. This does not, however, mean that there are not concerns around the timeline. The project will need to start as soon as possible to complete the first phase before the tax season for 2018 (prior to January 2019). A go/no-go decision for project Phase 1 (which includes personal income tax) is planned for November, 2018.
Cost Analysis and Model for Benefit Analysis	In our opinion the benefits of this solution outweigh the cost of the procurement. Compared to the current VDT system, which lacks key functionality (Check-21), accuracy, and ease of use, the new solution has key advantages. Although the product is more expensive over the 10-year life cycle, BerryDunn believes there will be tangible benefits along with intangible benefits will be of value to VDT in its mission.
Impact Analysis on Net Operating Costs	The maintenance and operations of the new solution will be less expensive than the current solution, but, when including the implementation costs of the new system, it is more expensive.

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

Table 1-3 – Impact/Likelihood of Occurrence Risks

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
Phase I (Check-21 Functionality, Personal Income Tax, Renter Rebate Claim, Homestead Declaration, and Property Tax Adjustment) is not completed until early 2019, delaying the implementation of the solution due to income tax processing season. If the implementation of Phase I is not completed before December 31, 2018, the State will likely have to use its old system for many of its taxes for another year. The largest of these taxes, the State personal income tax, is scheduled to be finished in Phase I. If it is not, gains in productivity when processing taxes will not be realized until 2020, and the use of the newly procured scanning system will be delayed. This could also require the extension of the current contract with IBM.	A. Will make a call in November to do in legacy based on confidence of how Phase I is going. B. Providing financial incentives to Vendor to get it done early.	VDT resources provided two strategies to address this concern. Their first response is to determine whether they need to continue to use the Banctec/IBM solutions by November 2018. This seems reasonable. If they decide the first phase of the solution will not be ready by November, they can take actions, such as hiring additional temporary workers, to alleviate the effects of the delay. This strategy would come with additional cost but would likely not cause the agency additional issues. The second response is to remove the retainage and lower the value of the "Upon Acceptance of Phase I" payment if the Vendor completes the first phase by 11/15/2018. The change can be seen in the draft contract VDT intends to provide to Fairfax. For each month Phase I is delayed, the amount of the payment would fall and the amount of that payment held in retainage would rise. The change is illustrated in the table below. The Vendor will have to agree to this change in the contract, but this would incentivize the Vendor to complete Phase I earlier.
Changes in federal tax law ("To provide for reconciliation pursuant to titles II and V of the concurrent resolution on	Negotiate schedule to do TY18 forms development after July 1. Rearrange work so focus is on prior year forms first.	The State intends to adjust the scheduled implementation of tax forms so that training on tax year 2018 forms occur later in

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
the budget for fiscal year 2018") may lead to changes in Vermont Tax Law. The changes to federal tax law may lead to the Vermont State Legislature making changes to its tax laws. This might lead to the State changing its tax forms going forward into 2019 and beyond, and these changes will likely come into effect in late April through June 2018. If these changes were to occur, they would occur while the project is already in progress. There is a chance that some of the forms have already been designed for the new system and would need rework. This could lead to additional costs or delays in schedule.		Phase I (after July 1, 2018). The Vendor would work on previous tax year forms (2012 – 2017) that are unaffected by the new federal tax law during that time. This would allow the State time to determine what changes the legislature might make to its tax forms and prevent the need for rework. The anticipated schedule adjustment is minor.
VDT does not have backup staff if key resources were to leave the project or department. VDT and ADS staff assigned to VDT have experienced staff. However, neither agency has a "deep bench." If assigned staff leave or are moved off the project, there are no other immediately available staff who can perform the same tasks on the project. Loss of any staff and their expertise could negatively impact the project's schedule.	A. Will have multiple resources for each function.	VDT's response is a reasonable way to mitigate this risk. Key staff could be lost, and it would negatively impact the project, but VDT claimed it was common practice to cross-train all their employees, helping prevent one employee from being the only expert in a certain functional area. This would be an effective way to help lower the negative impact of losing ADS or VDT staff on the project but would not remove the risk completely.
The relationship with VDT's current Vendor could lead to difficulty in data migration and additional costs in maintaining the current solution.	A. Engage with ADS to get IT perspective. B. See if we can do a six-month contract.	In response to the first aspect of the risk, VDT intends to have ADS resources examine the current contract with IBM. ADS does have resources familiar with the contract due to the previous legal dispute in which

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
The State does not have a positive relationship with its current scanning and imaging Vendor and has concerns with two aspects of the project. A. The images that IBM currently has are proprietary. The State is concerned that IBM will not work with the new Vendor to help them transfer the current images into a format (e.g., PDF) that can be read by many different applications. Any dispute could impact importation of legacy tax data. B. VDT's current contract with IBM is a one-year contract that runs until June 30, 2018. Historically, these have been annual contract renewals, and the State expects to renew at least one more time. However, Fairfax's latest schedule in its Best and Final Offer (BAFO) has the project ending in December 3, 2019. This would mean that if the State were to do two one-year renewals, it would pay for an additional six months in which the new solution would be fully operational.		the IBM solution was being used on virtual machines. The State believes it owns the images of the tax returns but does have some concern about ownership of the forms that capture the data. VDT also said that at least one state—Maine—has transferred its tax form images from an IBM solution to Fairfax, which they believe illustrates that it can be done. VDT has been in contact with Maine Revenue Service about other aspects of the procurement. The State response to the second aspect of the risk also seems reasonable, although it is more of a mitigation than an acceptance. The State will try to only purchase what it needs from IBM, but if a one-year renewal option is the only renewal option, the State will have to accept it to be able to process forms. It may be prudent to have the old system as a back-up option for six months as well.
VDT has a "busy season" that could negatively impact the project. The State is very busy during tax season (from March through	A. Staff for it with additional temps. B. Crosstrain.	VDT seems to have acceptable mitigation approaches prepared for the "busy season" during Phase II. VDT does not intend to reduce its temporary employees

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
May) when it is processing income tax returns. This means its staff have less time to devote to the project. The current iteration of the project plan has the implementation of Phase I and Phase II occurring during the State's busy season. The Vendor's proposed schedule in its BAFO also has the installation of its hardware and software in April/May of 2018, coinciding with income tax processing season.	C. Next year efficiencies will be recognized.	in the 2019 tax season, which means that the staffing capabilities they possess will remain the same. Additionally, Fairfax's proposed schedule would have some of the most significant capabilities (Check-21, personal income tax on the new system) be functional at that time. It is a positive sign that VDT accepts that, during the project, its staff will be busier.
The State may incur additional costs to make changes to its current tax system, VTax, to accommodate the scanning and imaging system. The State currently has FAST as its Vendor for its tax system. FAST's rate is $175 per hour. While FAST has not charged VDT for the changes it has had to make to VTax so far, this project could require changes that FAST would have to make. If FAST decides to charge for these changes, it would be at additional cost to the State.	Look to special funds if need be, not CMF. Rely on State resources to do the work.	The State's response to this risk seems reasonable. The State is hoping, first and foremost, to avoid the risk by using its own resources to do much of the technical work on its side. This will limit FAST's involvement on the project. If FAST has to become involved, and if FAST decides to charge VDT for its services, VDT has identified other funds that could pay for the project fund, other that the computer modernization fund. VDT has several options which should limit, prevent this risk from having a major impact on the project.
Contract negotiation could take longer than expected, delaying the start and affecting whether Phase I of the project can be completed in 2018. There is the possibility that a contract reviewed by VDT could be delayed by a review from ADS and the Attorney General's office. The current timeline	Continue to move forward as we can.	VDT understands how important it is for the project to start on time (see risk one) and is taking a number of steps to try to speed up the process. Having a clear understanding of the steps and timelines for contract execution is important for timely completion of the contracting process. Delays in contract

Risk Description	State's Planned Risk Response	Reviewer's Assessment of Planned Response
proposed by the Vendor has it implementing Phase I in December 2018 and starting on March 1. The schedule does not leave much time for a delay in the start of the project.		review and approval are not uncommon.

1.5 Other Key Issues

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

A key consideration for adopting newer technology is to gain efficiency and reduce cost. The Cost Benefit Analysis does not show a cost decrease to the State of Vermont. Even with estimated savings in temporary staff, the cost to scan, image, and remit payment for tax returns is expected to increase. The solution relies on unquantifiable (at this time) savings, such as expected reduction in temporary workers and planned ability to reallocate staff to electronic filing processes due a more reliable and more efficient system. There is also inclusion, as is typical in IRs, of State staff costs to operate the solution. These costs are questionable as they represent labor costs the State would pay irrespective of staff assigned to return scanning. Due to planned efficiencies, a better support and maintenance structure, and improved workflow, however, we believe that the expense of acquiring the system is still worthwhile.

One risk not listed in the register is the risk of not doing the project or not upgrading the scanning and imaging system. The risk is failure to capitalize on availability of a newer, more efficient software that comes with support. The risk is also found in failing to address known inefficiencies and not capitalizing on an opportunity to upgrade technology to improve the work of existing staff. We believe this risk is worth noting, even outside the risk register in Section 12/Attachment 2 of this IR.

1.6 Recommendation

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

We recommend that the VDT and ADS proceed with the contract. The age of the incumbent system and its demonstrated inefficiencies makes the case to replace compelling. Quantifiable gains in productivity are not well documented, but the planned modernization of a key tax processing system that may be paid for with existing funds is justified for planned efficiencies in workflow.

1.7 Independent Reviewer Certification

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

e-Signed by Charlie Leadbetter
on 2018-02-23 16:22:42 GMT

Independent Reviewer Signature **Date**

1.8 Report Acceptance

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

e-Signed by John Quinn
on 2018-02-28 14:03:23 GMT

State of Vermont Chief Information Officer **Date**

2.0 Scope of this IR

2.1 In-Scope

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

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

The IR report includes:

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

2.2 Out-of-Scope

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

This IR Report does not include procurement negotiation advisory services. No draft contract was reviewed.

3.0 Sources of Information

3.1 Independent Review Participants

List the individuals who participated in this Independent Review.

Table 3-1 – IR Participants

Name	Employer and Title	Participation Topic(s)
Alexa Lewis	Financial Director, Revenue Accounting and Returns Processing (RAARP)	Project Information, Implementation Plan Review, Cost Analysis, and Initial Risk Assessment
Amber DeVoss	Enterprise Architecture, ADS	Initial Technology Architecture Review
Ann Lane	Program Technical, ADS	Project Information, Implementation Plan Review, Initial Technology Architecture Review
Gregg Mousley	Deputy Commissioner, VDT	Project Information, Implementation Plan Review, Initial Technology Architecture Review, Cost Analysis, and Initial Risk Assessment
Margaret Daniels	Financial Director, RAARP, VT	Project Information, Implementation Plan Review, and Initial Risk Assessment
Michael Steves	Information Security Analyst, VT	Initial Technology Architecture Review
Mike Minter	Fairfax Imaging, Sales & Marketing	Fairfax Imaging, Inc.
Tanya Perry	IT Project Manager, ADS	Project Information, Implementation Plan Review, Initial Technology Architecture Review, Cost Analysis, and Initial Risk Assessment
Tom Buonomo	Former IT Director, ADS	Initial Technology Architecture Review

3.2 IR Documentation

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

Table 3-2 – IR Documentation

Document Name	Description	Source
Stakeholder Contact List	Stakeholder contact list for scheduling interviews (e.g., ADS staff, VDT resources, proposing Vendor resources); please include names, project roles, email addresses, and telephone numbers for all stakeholders.	Tanya Perry
IT Activity Business Case & Cost Analysis (IT ABC Form)	IT Activity Business Case & Cost Analysis (IT ABC Form)	Tanya Perry
IT Activity Business Case & Cost Analysis (IT ABC Form) Accompanying Cost Spreadsheet	IT Activity Business Case & Cost Analysis (IT ABC Form) Accompanying Cost Spreadsheet	Tanya Perry
Market Research Results	Any market research results, including Request for Information (RFI) issued and responses received	Tanya Perry
Transmittal Letter & Technical Response	Transmittal Letter & Technical Response for Scanning, Imaging, Data Capture, and Remittance Processing Project for presumed awardee. This should include any proposed implementation plan.	Tanya Perry
RFP	RFP for Tax Capture, Scan, Index Project including attachments and any functional and non-functional requirements.	Tanya Perry
Scoring Sheets/Bid Tabulations	Scoring sheets or bid tabulations for all proposals received	Tanya Perry
Project Charter	Project Charter	Tanya Perry
Project Budget	Project budget and budget for ongoing support	Tanya Perry
ADS Enterprise Architecture Office Reports	Any report on Scanning, Imaging, Data Capture, and Remittance Processing enterprise architecture considerations drafted by the ADS Enterprise Architecture office	Tanya Perry
Draft Contract	Draft contract for presumed awardee (if any)	Tanya Perry
Cost & BAFO	Cost and BAFO response for presumed awardee	Tanya Perry

Document Name	Description	Source
Contract	Contract between State of Vermont and the current Tax Scanning, Imaging, Data Capture, and Remittance Processing Vendor	Tanya Perry
IRs	Any IRs completed for the current Scanning, Imaging, Data Capture, and Remittance Processing system	Tanya Perry
Department of Information and Innovation Strategic Plan	Department of Information (DII) – Strategic Plan – FY2016 – 2020	Tanya Perry
Record Management, Retention Periods, and Public Records Requests	Records retention policy	Tanya Perry
Fairfax Contract August 2016 – July 2017 – State of Maine		Tanya Perry
Fairfax Amendment 1	Contract to extend from 7/30/17 – 7/31/18	Tanya Perry
2016 Demonstrations	Information on 2016 Vendor demos	Tanya Perry
SourceHOV Bidder Response – Pricing	Pricing from SourceHOV proposal	Tanya Perry
Project Manager Scoring Workbook – Tanya Perry	ADS review of State resource proposed to be Project Manager on the project	Jennifer Loughran

4.0 Project Information

4.1 Historical Background

Provide any relevant background that has resulted in this project.

The VDT currently scans and images tax filings using an IBM and BancTec solution in its headquarters in Montpelier. Prior to 1995, all tax forms—such as individual income tax—were manually entered. In 1995, VDT entered its initial contract with IBM to provide scanning services. The documents VDT received were scanned with DocQuery—a proprietary program that stores scanned images in a format that requires a login to view and is not universal. This contract has been extended several times, through June 30, 2018.

Given the age of the current product, the solution requires a significant amount of manual intervention and rework in addition to all items being stored in a proprietary format. When asked to estimate the percentage of documents that have to be reviewed by VDT employees, staff answered that as many as 90% of documents have to be reviewed due to the scanners' lack of accuracy. Current limitations with the scanner require forms to be batched in groups related to the tax forms. Any errors in reading those batches mean the entire batch has to be held up for an employee to verify the information.

The current solution also lacks modern payment remittance features. The system cannot take advantage of "Check-21," a law that gives banks and other organizations the ability make electronic images of consumers' checks that can then be sent to financial organizations for processing. This capability would allow for electronic cashing of checks. Modern systems allow checks to be scanned only once, with the tax forms, to be deposited. The current solution lacks this feature, meaning checks have to be set aside and scanned again with different "panini scanners" (low-volume scanners used in banks to deposit checks). The proprietary format of the scanned images does not interact well with VDT's new tax information management system, VTAX. Instead of being able to view scanned documents within VTAX, VDT employees have to open a new program to look at documentation. To overcome these shortcomings, VDT hires temporary workers, particularly in Data Verification and Scanning areas during busy season. The backlog created by the limitations in the current system also delays the speed at which VDT can provide refunds to taxpayers, which puts additional strain on taxpayer services who hear from taxpayers waiting for refunds.

VDT also outlined the difficulties they have experienced with the current Vendor. As the current product is very old, it has limited support. A significant amount of VDT's customer support comes from a single retired IBM employee who is working part time to provide support for the current scanning and imaging solution. Any time this employee comes on-site to provide support, the State has to pay a per-diem fee. Other support through IBM is limited.

The State is also paying for an additional server to monitor the virtual machines it uses for the current solution. This is the result of a dispute between IBM and the State and costs the State more money than it costs for the software that supports the current solution.

Given the limitations outlined above, the State sought a new solution that would be on a staggered refresh cycle with its new tax information management system. In the summer of 2016, VDT invited several Vendors to demonstrate their scanning software. VDT also spoke to other states about their implementation of solutions like Fairfax. In the summer of 2017, VDT issued an RFP seeking a new scanning solution. Following review of the proposals, demonstrations, and Best and Final Offers, the State selected Fairfax—which proposed IBLM ImageTrac scanners (ImageTrac 6300 and ImageTracDS 1150) with Quick Modules 5.0 software—as its preferred Vendor.

4.2 Project Goal

Explain why the project is being undertaken.

The State is looking for a modern scanning and remittance solution that can address the problems it has experienced as noted above. Any solution would need to improve overall workflow and time to process returns and payments. The solution must have Check-21 capabilities, be more accurate, not be limited by manual batching, and store data in a format that is not proprietary. Additionally, document management capabilities (such as greater archiving capabilities, setting a destruction date for old data, etc.) were discussed as being positive aspects of any new solution, but VDT's primary focus was to purchase a more accurate, efficient, and feature-rich scanning solution. In the future, VDT hopes to use a more efficient solution to improve its processes and its turnaround time on refunds. Additionally, it hopes to limit its reliance on temporary employees in the Data Verification and scanning areas of business.

Another goal the State had was to reduce the number and variety of forms used by tax return preparers. VDT has many different forms for each tax. Each unique tax service (such as TaxAct, CCH, etc.) has to have its own version of a tax return form. The scanners and programs have to be modified to read these forms.

VDT is seeking a Vendor that can help them convert all forms from 2012 to the present into the current system. The furthest back that VTAX accepts forms is 2012 (anything prior must manually enter the system).

There is an additional conversion element to the project as well. VDT would like to have old tax forms currently stored in IBM's format reformatted so that can be easily read by VTAX. This conversion and migration is an important part of the project.

4.3 Project Scope

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

The chosen Vendor, Fairfax Imaging, submitted a proposal that met all of the mandatory VDT requirements in the RFP. This proposal includes scanning hardware (ImageTrac) and software (Quick Module). The scanning hardware is a larger ImageTrac 6300 scanner—which would be the primary scanner—and a smaller ImageTrac DS1155 as a disaster recovery option. In addition, the Vendor proposed bringing tax forms over from the previous and current year into the new system (this disagreement between Fairfax and VDT is Risk 3 in Section 12: Risk Register) and to assist with the reformatting of images.

4.3.1 Major Deliverables

Within the Imaging and Scanning RFP, VDT requested the vendor develop and implement following project management documentation.

Table 4-1 – Major Deliverables Within RFP

Deliverable	Description	Update Frequency
Project Charter	The Project Charter provides basic information about the project. It includes a: Scope Statement (what is in and out of scope); list of Project Deliverables; high-level Project Timeline; Key Roles and Responsibilities; and known Risks, Assumptions, and/or Constraints. 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 and will include the following documentation: 1. Change Management Plan (will dictate how changes will be handled including any service level terms on over/under estimates) 2. Communication Management Plan (will dictate what will be communicated, to whom, and how often) 3. Requirements Management Plan (will dictate the approach for how the requirements will be gathered, approved, and maintained) 4. Human Resources Management Plan (will dictate what resources will be assigned to the project, for how long, under what allocation, whom they report	

Deliverable	Description	Update Frequency
	to, and how to handle changes to the resource plan) 5. Procurement Management Plan (will dictate how the Vendor(s) will interact with the project and expectations regarding Vendor relations with State resources) 6. Quality Management Plan (will dictate the quality controls over the work being done on the project as well as determine Key Performance Indicators – this document is not limited to deliverables) 7. Risk and Issues Management Plan (will dictate how risks and issues will be managed over the course of the project) 8. Scope Management Plan (will dictate how the scope will be maintained to prevent “scope creep”)	
Formal Acceptance Criteria	Document that establishes the acceptance and rejection criteria of each document on this list.	
Formal Acceptance Sign Off	Obtain sign-off at the completion of each project deliverable as defined by the formal acceptance criteria.	
Change Requests	Formal document that outlines any changes to the Contract scope, schedule, budget, and resources.	
Change Requests Log	Tracks the specific change requests approved and their impact to the project scope, budget, and schedule.	
Budget Log	Outlines original Contract costs by deliverable with billed and paid-to-date information	
Risk Log	A log of all risks (opened or closed) 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 open and resolved/completed issues. Issues should be outlined by their impact, owner, date of occurrence, and remediation strategy.	

Deliverable	Description	Update Frequency
Decision Log	A log of all decisions made over the course of the project. Decisions should have a date and name of decider.	
Requirements Documents	Finalized list of the project requirements to be approved by the State. The approach is dictated by the Requirements Management Plan (see Project Management Plan), and can include: • Stated requirements document (SRD): The SRD contains current State process flows, user stories, and business rules and states the business need at a high level. • Business requirements document (BRD): The BRD contains a medium level of requirements as well as required metrics of project success. • Functional requirements document (FRD): The FRD contains detailed requirements that can be handed off to the Contractor for execution.	
Test Plans	A description of 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 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 (see Section 4.4 for more detail).	Once per implementation
Project Status Reports	Provides an update on the project health, accomplishments, upcoming tasks, risks, and significant issues. The Status Report and the project color being report shall be developed in consultation with the State business lead and State project manager, as set forth in greater detail in Section 4.2.2.	Weekly

Deliverable	Description	Update Frequency
Project Phase Audit/Gate Check	At the end of each phase, the Contractor Project Manager shall submit an audit of all deliverables and milestones achieved during the phase to the State Project Manager for review.	Once per phase.
Meeting Agenda/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	These metrics reflect how well the project was performed. Metrics will be outlined in the Quality Management Plan	
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 Contractor project team members to get a full 360-degree view of the project in retrospect.	

Fairfax proposed its own set of deliverables "along with any others identified within the RFP by VDT." The list of these deliverables and the Vendor's description are below.

Table 4-2 – Fairfax-Proposed Deliverables

Deliverable	Description
Project Management	Fairfax Imaging will provide Project Management oversight to its portion of the project. The Fairfax Imaging Project Manager is responsible for reviewing the State's data processing environment and capabilities as they relate to the Front-End Processing Project. The project plan reflects the collection of this information and will be used during the development of the detail specifications. The Project Manager will coordinate Fairfax activities to complete the plan of implementation and document the progress and activities completed during the course of the project.
Business Process Analysis	This effort will consist of performing analysis of VDT business process and defining business strategies, business practices, confirming implementation strategies, organization needs, and technical needs of the process improvement

Deliverable	Description
	initiative in conjunction with VDT staff to address the goals and objectives of the project.
Project Plan	The Fairfax Imaging Project Manager is responsible for cooperatively developing a project plan in conjunction with VDT to meet the deliverable dates for all aspects of the proposed system. This is updated and maintained during the life of the project. The Project Plan consists of the Gant chart and document that details the order of implementation and strategy to deliver the system. The Project Plan will include, but not be limited to tasks for Design, Development, Implementation, Testing, Training, Conversion, and Acceptance.
Weekly Status Reports	The Fairfax Imaging Project Manager will provide Weekly Status Reports. This is part of the Communication Plan developed by the Project Manager and delivered to VDT for use in weekly discussions about the progress of the project.
Training Plan and Training Materials	This is a collection of documents and materials that include training documents, course outlines, presentation material, and training videos developed during VDT training for ongoing reference. The training plan specifically addresses the delivery of these materials to system administrators, lead operators, operators, and technical personnel.
Communications and Change Management Plan	The Fairfax Imaging Project Manager is responsible for (with VDT approvals) developing the Communications and Change Management Plan procedures, forms, and methodology. The Fairfax Imaging Project Manager is responsible for the content and delivery of approved changes.
Risk and Issue Management Plan	The Risk and Issue Management Plan addresses schedule, process, and content. The Project Manager assesses all of these to determine what risks are present that would compromise the project deliverables and develops a mitigation strategy to avoid/recover should any of these risks develop.
Software Change Control Process Document	This document addresses the agreed-upon rollout process for new or updated software deliveries

Deliverable	Description
	during project implementation throughout the phases.
Detail System Design Specification	This document addresses the specific details regarding how the provided software will address the business and technical requirements for VDT along with the scope contained within the RFP. Included within this are the details about configuration, database design, configuration, custom user exits, interface content, and methodology with external systems, service modules, implementation details of business rules, and application object presentations.
Forms Redesign Consultation	Forms redesign consultation, including recommendations and best practices for achieving recognition data elements, is provided as part of the overall project on an as-needed basis.
System Documentation (Administrative and User Manuals)	Vendor documents will be provided for both Fairfax software and for third-party items such as the IBML ImageTrac scanners integrated into the solution. Quick Modules user manuals, programmer guides, and system administrator manuals are provided. For ImageTrac scanners, user manuals normally provided by IBML will be included. This material is provided concurrently with the delivery of training and will consist of the necessary materials to operate and maintain the proposed solution.
System Test Plan and Testing	This document specifies what is to be tested and how that testing is to be done, which includes: test document preparation, script development, interface testing, what is expected to succeed, and what is expected to create an exception. This testing is performed utilizing both Fairfax and VDT personnel and monitored by the Project Manager who reports the success or failure of each test element. This report drives corrective updates and retesting.
Final Project Report	This report is produced at the conclusion of the project. It contains the extent to which the project objectives have been met, how they have been met, and any recommendations. The report is

Deliverable	Description
	delivered upon final acceptance as detailed in the project plan.
Maintenance and Support	After system acceptance and during the warranty period, Fairfax Imaging provides on-going support of the installation. This includes, but is not limited to:
	• Monday – Friday, 8:00 a.m. to 5:00 p.m. call/email support and dispatch of Fairfax and IBML resources
	• Prioritization of support requests
	• Resolution of problems
	• Off-site support via VPN (to test system) or web based with desktop sharing
	• System defect notification and resolution
	• Change order requests
	• Version control of supplied updates and modifications
	• Fairfax Imaging product upgrade notifications
	• Third-party product upgrade notifications
Development, Test, and Production Regions	Fairfax Imaging will deliver a development and test system to support the production system. It is anticipated that both are virtual machines and have the same capabilities but differ in external system interfaces. Changes, updates, and QA testing occur within the test system and are migrated into production once these are deemed ready for production. The test environment can be setup for separate training for VDT staff.
Quick Modules Licensed Software	Includes all licensed software of Quick Modules as outlined within this RFP. Configuration of the Quick Modules software is performed by Fairfax to produce the features and product configurations to meet the specifications contained in the Detailed Design Specifications. At the completion of this activity, the on-site installation will begin. Unit testing of each element is performed prior to any on-site installation.

Deliverable	Description
Application Configuration and Setup Installation Services	This includes the following software elements:
	• Quick Modules service applications
	• Database schemas installation and server/workstation configuration
	• SoftTrac (IBML scanners) development
	• Check-21 integration to the bank of deposit
	• Interface into existing legacy systems (tax system)
	• Integration into VDT Network, SAN, etc.
	• All elements are unit tested and end-to-end tested and tuned for best performance.
IBML Scanner Installation	• Installation of all proposed ImageTrac scanners will be performed. This includes attending the IBML Factory Acceptance Test (FAT) prior to the shipment of scanners to VDT.
Production Support	• Production support activities during parallel operation and transition to the proposed system will be provided. The full implementation staff will be on site during assigned periods to provide mentoring, QA activities, corrective updates (if any) during each phase of the project as well as upon completion and acceptance of the system.
Reports	• Fairfax Imaging will supply its standard statistical reports as defined within the Detail Design. Customized reports will be defined within the Detail Design portion of the project and provided by Fairfax Imaging.

Fairfax proposed the following deliverables as written deliverables and divided them into three groups: Project Management Deliverables, Technical Deliverables, and System Deliverables. They are as follows:

Project Management Deliverables:

- Project Plan (updated weekly throughout project)
- Weekly Progress Status Reports, including tasks accomplished/planned, tracking of issues with resolution, and risk register

- Training Plan
- Communication and Change Control Plan
- Acceptance Test Plan
- Risk Management Plan

Technical Deliverables:

- Detail Design Document (including interfaces)
- User Library/Exit Routines Functional Description
- System Documentation

System Deliverables:

- Training Material Deliverable
- End User Documentation
- System Test Plan
- Final Project Report

In addition to these deliverables, there are "Professional Services Milestone Deliverables." These are the paid deliverables in the project and are detailed in Section 4.4.

4.4 Project Phases, Milestones, and Schedule

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

Fairfax proposed a schedule that divides the work into three phases in addition to Project Management Activities and Project Closeout. The three phases split up the configuration and implementation VDT's different tax forms. The phases are scheduled successively. Each phase includes activities such as training, configuration, unit testing, and UAT.

Phase I includes "Individual Income Tax, Renter Rebate Claim and Homestead Declaration…Property Tax Adjustment Claim" forms and Check-21 Functionality. The Quick Modules software installation and IBML hardware installation occurs around the same time as Phase I as well. Phase II includes Meals and Rooms Tax, Sales and Use Tax, Fiduciary Income Tax, Corporate Income Tax, and Business Income Tax forms. Phase III includes Cigarette Tax and Estate Tax forms.

Milestones

The paid milestones are broken down as follows:

- IBML hardware installation
- Quick Modules software installation

- Detail Design Phase
- UAT start
- Upon Acceptance of Phase I
- Upon Acceptance of Phase II
- Upon Acceptance of Phase III
- System retainage 30 days following the acceptance of Phase III.

It is unclear which deliverables Fairfax agreed to provide in its RFP response will be grouped in which phase or milestone.

Project Schedule

The proposed schedule assumes a start of March 1, 2018. The proposed schedule end is December 3, 2019. The proposed duration is 458.19 days.

Table 4-3 – Project Schedule

Activity	Duration	Proposed Start	Proposed End
Project Management Activities	6 Days	3/1/2018	3/8/2018
Phase I Implementation	164.21 Days	3/2/2018	1/18/2019
Phase II Implementation	104.09 Days	1/18/2019	6/12/2019
Phase III Implementation	123.5 Days	6/12/2019	12/3/2019
Project Closeout	4.5 Days	11/26/2019	12/3/2019

5.0 Acquisition Cost Assessment

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

Table 5-1 – Acquisition Cost Assessment

Acquisition Costs	Cost	Comments
Hardware	$185,600	Scanning hardware components (ImageTrac 6300, DS115, Kodak 2900) purchase cost Two physical servers to support virtual machines
Software	$288,560	Quick Modules 5.0 Software License Fees
Implementation Services	$572,700	This implementation services cost includes: • Project Management • Requirements • Design(Architect Solution) • Development (Build, Configure, or Aggregate)/Testing • Defect Removal (included) • Implement/Deploy or Integrate • Quality Management • Training
Technical Staff/State Labor for Project Management	$95,000	State Labor for project management (Project Manager at 50% for the length of the project) Other State Labor to implement the solution (State IT resources involved in the implementation)
3% DII Estimate Charge for EA & Project Oversight	$33,594	

Acquisition Costs	Cost	Comments
Independent Review	$21,900	
Total Acquisition Costs	$1,197,354	

1. Cost Validation:

- Hardware costs come from the Fairfax Imaging RFP Response ($171,600) and Total Cost of Ownership spreadsheet ($14,000)
- Software costs come from the Fairfax Imaging RFP Response (178,560) and Total Cost of Ownership Spreadsheet ($30,000 and $80,000)
- Implementation Services costs come from the Fairfax Imaging RFP Response ($584,700) broken down as follows:
    - ✓ Project Management: ($175,400)
    - ✓ Requirements: ($33,750)
    - ✓ Design (Architect Solution): ($24,000)
    - ✓ Development (Build, Configure, or Aggregate)/Testing: ($189,500)
    - ✓ System Testing: ($24,000)
    - ✓ Implement/Deploy or Integrate: ($32,000)
    - ✓ Quality Management: ($72,000)
    - ✓ Training: (22,050)
- Technical Staff/State Labor for Project Management ($75,000 and $20,000) come from State IT ABC form
- 3% DII Estimate Charge for EA & Project Oversight ($33,594) comes from a calculation of all one-time costs except for the Independent Review cost
- The Independent Review cost ($21,900) comes from BerryDunn's proposal

2. Cost Comparison:

The State did research prior to releasing its RFP. VDT staff interviewed some Vendors about the potential of outsourcing their mail scanning services to another Vendor to run off-site. They found, with the comparatively small volume of mail that they process, it would not be cost effective to do so. In the summer of 2016, the State had Vendors demonstrate their products in advance of the RFP. Also prior to the RFP, they spoke to several jurisdictions in similar size (Maine and Washington, D.C). They based their business case off of costs that they received from Washington, D.C. The estimated implementation cost in the business case (which does not include the cost of temporary labor and is not included in this part of the analysis) is lower ($995,000) than Fairfax's proposed costs ($1,197,354), but the annual maintenance costs are higher than what were initially estimated ($230,000 vs $163,268 – $191,510). Over the 10-year

life cycle, the cost to operate the solution as quoted in the ABC form ($3,450,000) was higher than the actual cost ($3,267,533).

In 2011, the Maine Revenue Service purchased a Tax and Revenue Image Processing System (TRIPS) through Fairfax, which, according to DelTek, cost the State approximately $1.8 million. This is higher than the price VDT was quoted in 2017—$1,624,053 (which does not include servers and State costs)—and it is unclear how many years this contract included. Additionally, VDT provided several contract extensions that Maine Revenue Service had given them, including a contract extension through July 2018. This contract extension quotes the cost for maintenance at $195,669 per year, which is higher than the $60,470 – $82,677 over the solution's 10-year lifespan (again not including the cost of servers). These maintenance costs are also lower than the cost including servers (ranging from $163,268 – $191,510/year over the 10-year costs. The costs for the Fairfax system do not appear higher than what at least one other similarly sized state paid.

Fairfax's cost is not significantly higher than the costs of the other proposed system VDT requested a BAFO from. It is important to note that neither Vendor included the cost of servers or State labor in their costs, so for this analysis BerryDunn assumed those costs were the same. SourceHOV, proposing a five-year life cycle, provided a total cost of $1,264,320 ($877,012 for implementation and $387,308 for maintenance over five years). If Fairfax's proposed costs were limited to five years, the total proposed cost would be $1,240,661 ($922,860 for implementation and $317,801 for maintenance over five years). The five-year costs of these solutions are very similar.

3. Cost Assessment:

As outlined above, VDT appears to be paying a similar price to what it had initially expected. In a BAFO, the Vendor did lower its costs by $23,482. The proposed solution is more expensive than the current solution over a 10-year lifespan but is not significantly more expensive than other modern systems on the market.

Additional Comments on Acquisition Costs:

6.0 Technology Architecture Review

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

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

   a. Leverage successes of others, learning best practices from outside Vermont

      VDT spoke with other states about their experiences with this solution, and others like it. To estimate their costs in the Business Case, VDT spoke with Washington, D.C., which had recently implemented a similar program. VDT staff also referenced several other projects—Maine, Connecticut, and Oklahoma—that they spoke with and had lessons learned from. They provided the IR team with a contract extension from Fairfax that the Maine Revenue Service had recently completed. They also spoke about the similarity in timelines from the three aforementioned states. VDT also spoke about the possibility of having a better support structure from Fairfax than their current provider, given that all other New England states are currently states with Fairfax as their scanning solution. The state also spoke highly of Fairfax given that they are the solution in 19 other state revenue agencies.

   b. Leverage shared services and cloud-based IT, taking advantage of IT economies of scale

      None of the Vendors proposed a cloud-based solution hosted on a third-party cloud, but the VDT had left that option open. ADS resources had said that this was probably a positive, given that the potential for lag time in connecting a scanned image with cloud hosting could delay the scanning solution's efficiency. The solution will be privately hosted on the State's cloud.

   c. Adapt the Vermont workforce to the evolving needs of State government

      VDT hopes that the State solution will reduce its reliance on temporary workers. Without the need for batch processing, scanning checks multiple times, and spending as much time with data verification, VDT believes its needs for temporary workers will be lower, which means a lower cost for the State. VDT also hopes that by making current scanning process easier, it will have more flexibility to make additional process changes in the future.

   d. Apply enterprise architecture principles to drive digital transformation based on business needs

      According the ADS enterprise architect review, this is not considered an enterprise project.

e. Couple IT with business process optimization, to improve overall productivity and customer service

   VDT is updating a solution that was originally procured in 1995. Fairfax offers additional functionality that will improve VDT's business processes, eliminating data entry errors and decreasing turnaround time in preparing refunds for taxpayers.

f. Optimize IT investments via sound Project Management

   Fairfax and the State have identified project managers for this project. The State's project manager, Tanya Perry, has worked for VDT or ADS for over 20 years. Her project management profile indicates a score of 44 points, qualifying her for "robust" projects as defined by the ADS Enterprise Project Management Office (EPMO).

   Fairfax has proposed Jeff Allan as its project manager. According to Mr. Allan's resume, he was the project manager for several other Fairfax projects with a similar scope (most recently in Connecticut, but also in Delaware) and has implemented Quick Modules for Fairfax with the Colorado Department of Labor, Ohio Department of Taxation, Delaware Department of Revenue, and Connecticut Department of Revenue.

g. Manage data commensurate with risk

   VDT included 24 security requirements in its RFP, as well as an additional section requirement asking about error handling and logging. The Vendors were asked to detail how they would meet the requirement and how their proposed solution would monitor the solution for compliance. The Vendor answered "Yes" to all but three requirements. The three requirements to which it answered "N/A" were based on a Vendor-hosted solution. Fairfax is not hosting the solution. Fairfax provided detailed responses to the requirements to which it answered "Yes." VDT staff also spoke favorably of Fairfax's attention to detail when mentioning compliance to specific standards such as Federal Information Processing Standard (FIPS) Publication 140-2 standards (FIPS PUB 140-2).

h. Incorporate metrics to measure outcomes.

   Several deliverables (e.g., "End-of-Project Metrics") in the RFP ask the Vendors to define metrics, but none give specific examples. These deliverables reference the Vendor needing to define the metrics in its deliverables. The BRD, part of the requirements documents, includes "required metrics for project success." The End-of-Project Metrics deliverable reads: "These are metrics that reflect how well the project was performed. Metrics will be outlined in the Quality Management Plan." The Closeout report "will include all the lessons learned, project metrics, and a summary of the project's implementation and outcome in operation."

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

The solution is a Microsoft-based system. It has gone live in 6 Department of Motor Vehicles (DMV), 24 other State revenue departments, 6 city/county revenue departments, and 5 State Labor departments, as well as being the system used for several major healthcare retailers.

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

In Fairfax's proposal, the Vendor met all but three of the security requirements. The three requirements it could not meet were for a cloud-based solution, which the Vendor did not propose. In speaking about the data within its systems, the Vendor said it encrypted the data in such a way so that it was compliant with the FIPS Publication 140-2 standards (FIPS PUB 140-2).

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.

In the information describing the ImageTrac 6300 scanner (the main scanning solution), the hardware is described as Section 508 compliant.

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

The State had one non-functional requirement related to disaster recovery. Requirement A1 reads: "Any solution Vendor must provide for the backup/restore, data retention, and disaster recovery of contracted/hosted application solution." The Vendor answered "Yes" to this requirement and expanded, "Fairfax Imaging will work with the State's IT team to establish backup/restore procedures for the proposed solution. All VDT data is retained in the SQL database until the purging process is configured to run using the included Quick Purge module."

In terms of disaster recovery for hardware, Fairfax proposed one ImageTracDS1155. This is a smaller scanner than the proposed solution but can "process co-mingled document types, has a left-justified feeder, and includes a front printer to endorse documents." The scanner also has the same software for image capture (SoftTrac Capture). The Vendor also said the same hardware is in use in Colorado and New Hampshire departments of revenue.

State resources spoke positively about this option. They liked the idea of being able to have a smaller scanner off site, so that if anything happened to the larger scanner, they could still process mail (albeit at a slower rate).

Fairfax has two offices. One office is in Tampa, Florida, and the other is in Rockville, Maryland. Were there to be an event that made the main office (Florida) unable to be used, the company plans to move its support services and business activities to its second office in Maryland. Its

short- and long-term data is stored through Amazon services and can be accessed from both offices.

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

The RFP contained one non-functional requirement related to data retention. Requirement A1 reads “any solution Vendor must provide for the backup/restore, data retention and disaster recovery of contracted/hosted application solution.” The Vendor answered “Yes” to this requirement and expanded, “Fairfax Imaging will work with the State’s IT team to establish backup/restore procedures for the proposed solution. All VDT data is retained in the SQL database until the purging process is configured to run using the included Quick Purge module.”

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

The Vendor-proposed SLA’s seem adequate, although the 30-business-day response to minor problems seems lengthy. We do find that there are minor discrepancies between the naming of problems in the Vendor response (e.g., “Critical”) and the terms used in Attachment F of the draft contract (e.g., “Priority 1”).

The draft contract with Fairfax defines “Service Level” as, “the specific level of performance Contractor is required to comply with and adhere to in providing the Services in conformity with the Requirements, consistent with the criteria and parameters specified in this Contract. Service Level Terms are set forth in Attachment F to this Contract.”

Any solutions Vendor must engage the State using Service Level Agreements for system and application performance, incident reporting, and maintenance.

Fairfax states that it will provide “complete support coverage for all hardware and software provided by Fairfax.” Fairfax also states it will be the single point of contact. Fairfax has provided the State three means to access support—phone, email, and web. The calls are logged and the issues can be tracked. Fairfax states that it will respond to VDT within 30 minutes of the issue being logged, and a technician will be dispatched within four hours. The primary hours for support are 8:00 a.m. to 5:00 p.m., although the Vendor lists that this can be extended to 24/7.

Fairfax categorizes problems into four levels, which can be seen below.

Table 6-1 – Fairfax's Categorizations of Problems

Severity	Problem Type	Response
1	**Critical**; impacts production or conditions severely affect service, capacity/traffic:	Contact customer within 30 min. FAST status every two hours

Severity	Problem Type	Response
	• System down • Electronic deposit failure	Resolve within four business hours Escalate to the Director of Support Services after two business hours On site after 16 business hours
2	**Major**; impacts daily operations; conditions that seriously affect system operation: • Very slow batch • Processing • Partial processing limited • Repeated errors • Requiring extra processing	Contact customer within 30 min. Provide status every eight hours. Resolve within 16 business hours Escalate to the Director of Support Services after four business hours On site after five business days.
3	**Minor**; no immediate operational impact; conditions that do not significantly impair the function of the system: • Defined as a minor problem that exists with the system but the majority of the functions are still usable and some circumvention may be required to provide service • Batch related issue • Involves a minor portion of the overall process	Contact customer within 30 min. Resolve within five business days Escalate to the Director of Support Services after two business days On site after 30 business days
4	**Menial**; requires answer to questions, requests, or change requests. No effect on production or mission-critical subsystems. • Test or Dev environment modification • Documentation, software, or other requests • Questions not related to production processing	Contact customer within 30 min. Resolve based on customer request No escalation needed On site two business weeks after scheduled period

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

The two system integrations are VTax and People's United Bank. In its Implementation Plan responses, Fairfax includes a Systems Interface Plan and Design Specifications Document. Vendor also has a task to "Request Bank Requirements for x.937 file 7 Connection Protocol." Discovery of the configuration needed for Check-21 functionality with the State's bank is also planned. Discovery as to bank interface requirements will be required, but the Vendor cites proposed team members with Check-21 experience with prior clients.

Fairfax states that it has "proven and existing integration with GenTax integrated tax system for uploading taxpayer data along with image files."

In its BAFO response, the Vendor removed an interface to VISION at the State's request.

Additional Comments on Architecture:

7.0 Assessment of Implementation Plan

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

1. The reality of the implementation timetable

The Vendor has performed similar work in 24 different states, and VDT spoke to several of those states in the process of selected a bidder. Three of the states—Maine, Oklahoma, and Colorado—had 18-month implementation timelines. Fairfax is proposing a 20-month timeline, and this seems consistent with the Vendor's experience in other states. The planned start date is early March 2018 with completion by early December 2019.

This does not mean there are not risks around the timeline. Risks 1, 7, and 8 are all schedule risks due to State constraints. These constraints, including exceeding calendar year 2018 to complete Phase I, the VDT's availability during tax and refund season, and delays in the contract execution could all impact the completion of the project within the proposed timeline. These risks can be seen in more detail in Section 12: Risk Register.

Fairfax has proposed an implementation plan of three phases. Each phase contains a number of taxes, and the phases do not overlap. Fairfax is proposing a plan that breaks up the implementation of taxes so that some functionality can be gained throughout the project, instead of taking a "big bang" approach.

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

VDT is coming off a large integrated tax system implementation and commented on the experience gained with conversion, testing, and script-writing. The staff feel they are technically prepared for the project. Additionally, VDT noted that the staff from the Vendor who implemented VTAX would be valuable resources for the integration of the scanning and imaging system. VDT did note, however, some change fatigue following a four-year project.

There is an ongoing concern around staff availability in terms of ADS staff reallocations. Risk 6 outlines the VDT's concerns with its staff numbers. The loss of any key staff would have a negative impact on the project, as staff cannot be easily or quickly replaced. One staffer in particular, who was a VDT employee and now an ADS employee, is the first line of defense with any support calls. If this individual leaves or is transferred, there could be significant impact on the project, as no other current employee has the system and business process knowledge.

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

The paid deliverables proposed by Fairfax tie to the implementation and are detailed on the next page.

Table 7-1 – Paid Deliverables Proposed by Fairfax

Professional Services Deliverables Milestones	Amount	10% Retainage (Professional and Implementation Services)	Total Payment Due at Milestone Completion
Upon IBML Hardware Installation	$171,600	$ -	$171,600
Upon Quick Modules Software Installation	$178,560	$ -	$178,560
Upon Signoff/Approval of Detail Design Phase I	$57,750	$5,775	$51,975
Upon start of UAT for Phase I	$102,990	$10,299	$92,690
Upon Acceptance of Phase I (if by 11/15/18)	$154,485	$0	$154,485
Upon Acceptance of Phase I (if by 12/15/18)	$150,000	$15,000	$135,000
Upon Acceptance of Phase I (if by 1/15/19)	$140,000	$25,000	$115,000
Upon Acceptance of Phase II	$128,738	$12,874	$115,864
Upon Acceptance of Phase III	$128,738	$12,874	$115,864
System Retainage 30 days following acceptance of Phase III			$57,270
Total Amounts (if Phase I by 11/15/18)	$922,861	$41,822	$881,039
Total Amounts (if Phase I by 12/15/18)	$918,376	$56,822	$861,554
Total Amounts (if Phase I by 1/15/19)	$908,376	$66,822	$841,554

However, the Vendor did agree to all deliverables in the RFP, which are listed in Section 4, Project Information, in addition to proposing additional deliverables of its own. It is not clear which deliverables fall into which phases, an item the State may wish to clarify in contract negotiation.

A. Project Management

In addition to the project management deliverable required in the RFP, Fairfax proposed its own project management deliverable. It reads as follows:

Table 7-2 – Fairfax Project Management

Deliverable	Description
Project Management	Fairfax Imaging will provide Project Management oversight to its portion of the project. The FFX Project Manager is responsible for reviewing the

Deliverable	Description
	State's data processing environment and capabilities as they relate to the Front-End Processing Project. The project plan reflects the collection of this information and will be used during the development of the detail specifications. The Project Manager will coordinate Fairfax activities to complete the plan of implementation and document the progress and activities completed during the course of the project.

BerryDunn believes that this description, as well as the requirements outlined in the RFP for project management is enough to hold the Vendor accountable.

B. Training

Fairfax states that it will have deliverables for training plan and training materials. There is also a separate deliverable for System Documentation (Administrative and User Manuals), which will be delivered with the training. This deliverable is listed below:

Table 7-3 – Fairfax Training

Deliverable	Description
Training Plan and Training Materials	This is a collection of document and materials that include training documents, course outlines, presentation material, and training videos developed during VDT training for ongoing reference. The training plan specifically addresses the delivery of these materials to system administrators, lead operators, operators, and technical personnel.

All training is due to happen on site. Training "will be developed with input from VDT users and the project team based upon Fairfax imaging prior experience in similar implementations." Fairfax will train both "Operators" and "Supervisors/Management." It will also provide training for technical and system support, and will take a train-the-trainer approach for training. Fairfax proposes a "four-tiered approach," which is mentoring—on-site staff work with VDT staff while the system is in development; formal training in a classroom—formal session with handouts; on-the-job training; and post-production. The on-site Fairfax staff will be there during post-production to help staff in the production environment. Fairfax also included a sample training plan in its proposal. BerryDunn does not have concerns about Fairfax's proposed approach.

C. Testing

In its RFP, VDT requested test plans and test cases as deliverables, which fall under the deliverables Fairfax agreed to. In addition, Fairfax proposed a System Test Plan and Testing Deliverable. It can be seen on the following page:

Table 7-4 – Fairfax Testing

Deliverable	Description
System Test Plan and Testing	This document specifies what is to be tested and how that testing is to be done, which includes: test document preparation, script development, interface testing, what is expected to succeed, and what is expected to create an exception. This testing is performed utilizing both Fairfax and VDT personnel and monitored by the Project Manager, who reports the success or failure of each test element. This report drives corrective updates and retesting.

When asked about difficulties other clients have faced, Fairfax responded that it has seen problems with requirements not being well-defined in design and the problems showing up in testing. One of the ways Fairfax recommended addressing these issues is making testing resources available for testing and making sure test scripts were prepared.

Fairfax proposes five testing functions: unit testing, system testing, test-report-fix cycle, UAT, and regression testing. The Vendor proposes having 25% of user testing done on site. Some testing (QA) will be done off site. The Vendor expects VDT to "supply all necessary test forms in the specified volumes and conditions for development and testing." Test scripts will need to be developed by VDT as well.

BerryDunn would caution that VDT should be aware that the preparation of test scripts falls to them. As long as VDT plans for this resource need, the approach to testing within Fairfax's proposal seems reasonable.

D. Design

Fairfax will provide, minimally, a Detail System Design Specification, System Documentation (Administrative and User Manuals) and Application configuration, and Setup Installation Services as design deliverables. Fairfax will primarily be configuring its proposed software to read specific tax forms and checks and to send that data to VTax and the State's bank. Different tax forms will be implemented in three different phases.

E. Conversion (if applicable)

Fairfax will convert or assist the State with the conversion of prior tax forms that are currently in the IBM/IFP image format in VDT's legacy system. Fairfax plans to use scripts that will perform the conversion. They will use time during the design phase to determine the best approach to conversion. Also within this scope is conversion of the State's existing IBM MODCA.

F. Implementation Planning

The three-phase implementation plan provided by the Fairfax in its proposal and updated in its BAFO lists the specific tax forms that will be migrated in each phase. It also states when hardware and software will be installed and that Check-21 functionality will go live with the first

phase. Certain aspects of the plan need to be clarified (such as specific roles on testing), but this is expected at this point in the project.

VDT has determined that individual personal income taxes will be implemented in Phase I, and Fairfax has agreed.

G. Implementation

The Vendor has made similar implementations in a number of other states with a similar timeline. It appears to understand the best practices for these implementations and has staff experienced in these projects. Additionally, all payments are tied to some part of implementation, meaning the State is not paying for a product that has not had some functionality delivered.

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

VDT has proposed using Tanya Perry as the Project Manager for this project. Ms. Perry has been employed by VDT (either as a VDT or ADS employee) for 23 years and understands its business processes. She is currently the e-file coordinator for VDT and plans to spend about 50% of her time on this project. She was also involved in the VTax implementation as conversion implementation coordinator and assisted in cutover planning for the first three phases of the multiyear implementation. An analysis by ADS in the summer of 2017 found Ms. Perry to be “approved for robust” projects.

From the perspective of the reviewer, Tanya Perry is qualified to lead this project.

Additional Comments on Implementation Plan:

8.0 Cost Benefit Analysis

This section involves four tasks:

1) Perform an independent Cost Benefit Analysis. Information provided by the State may be used, but the reviewer must validate it for accuracy and completeness.

2) Provide a Lifecycle Cost Benefit Analysis spreadsheet as an **Attachment 1** to this report. A sample format is provided at the end of this report template.

A. The cost component of the cost/benefit analysis will include all one-time acquisition costs, on-going operational costs (licensing, maintenance, refresh, etc.) plus internal costs of staffing and "other costs". "Other costs" include the cost of personnel or contractors required for this solution, enhancements/upgrades planned for the lifecycle, consumables, costs associated with system interfaces, and any costs of upgrading the current environment to accept the proposed solution (new facilities, etc.).

B. The benefit side of the cost/benefit will include: 1. Intangible items for which an actual cost cannot be attributed. 2. Tangible savings/benefit such as actual savings in personnel, contractors, or operating expense associated with existing methods of accomplishing the work which will be performed by the proposed solution. Tangible benefits also include additional revenue which may result from the proposed solution.

C. The cost benefit analysis will be for the IT activity's lifecycle.

D. The format will be a column spreadsheet with one column for each year in the lifecycle. The rows will contain the itemized costs with totals followed by the itemized benefits with totals.

E. Identify the source of funds (federal, state, one-time vs. ongoing). For example, implementation may be covered by federal dollars but operations will be paid by State funds.

3) Perform an analysis of the IT ABC form (Business Case/Cost Analysis) completed by the Business.

4) Respond to the questions/items listed below.

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

To perform a cost benefit analysis, BerryDunn used the Total Cost of Ownership for Fairfax and cross-referenced with Fairfax Imaging BAFO, which were both provided by the VDT for review. BerryDunn also reviewed temporary staff numbers provided by VDT. Each cost figure was independently validated through the following methods:

- Hardware Costs: The $185,600 cost of hardware was found using the Total Cost of Ownership for Fairfax and cross-referenced with Fairfax Imaging BAFO. This fee was estimated for ImageTrac 6300, DS1155 and Kodak 2900, and physical servers.

- Software Costs: The $288,560 cost of software was found using the Total Cost of Ownership for Fairfax and cross-referenced with Fairfax Imaging BAFO. This fee was estimated for the Enterprise Application licensing fees.

- Implementation Services Costs: The $550,650 cost for implementation services was found using the Total Cost of Ownership for Fairfax and cross-referenced with Fairfax Imaging BAFO. This total cost is comprised of $175,400 for Project Management, $33,750 for Requirements, $24,000 for Design (Architect Solutions), $189,500 for Development (Build, Configure or Aggregate)/Testing, $24,000 for System Testing, $32,000 for Implement/Deploy or Integrate, and $72,000 for Quality Management.

- Training: $22,050 comes from Fairfax Imaging BAFO.

- Personnel Costs: The $95,000 cost for technical staff/State labor for project management was found using the IT ABC Reporting Form. Additionally, the $30,000 cost for annual staffing was also found using the IT ABC Reporting Form. This cost, while documented and not without foundation, represents labor costs that would still be paid by the State and is, arguably, not a discrete cost to operate the system. We included it in the report as there is a basis to it in other IRs.

  The $33,594 cost for the DII estimated charge for EA & Project Oversight (3% of acquisition costs), was found using the IT ABC form. Finally, the $21,900 for the IR comes from the BerryDunn's contract. The $154,595 cost for revenue processing temporary employees comes from State information on what temporary employees in that process area were paid in 2017. The lower $102,941 cost comes from State estimates as to what employees it will need once the Fairfax system is in place.

A detailed breakdown of these costs can be found in Attachment 1.

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

- There is a 10-year life cycle.
- The implementation period is separate from maintenance and support life cycle for the purposes of cost calculating.
- VDT will remain using the current number of temporary staff in operation years 2018 and 2019.
- The cost to maintain the current solution will remain the same over the same 10-year cycle.

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.

VDT plans to pay for the system implementation out of their computer modernization fund. There are some funds remaining from the VTax implementation.

4. Tangible Costs and Benefits: Provide a list and description of the tangible costs and benefits of this project. Its "tangible" if it has a direct impact on implementation or operating costs (an increase = a tangible cost, and a decrease = a tangible benefit). The cost of software licenses is an example of a tangible cost. Projected annual operating cost savings is an example of a tangible benefit.

The largest cost of the new system is its implementation ($1,197,354). This is a cost the State would not have to pay if it were to stay with the current system. The technical cost of supporting the new system is also higher ($162,608 – $191,510) than the current system ($105,162 per year).

A tangible benefit to this project is the cost of IT staff needed to support the solution. Due to the ease of designing forms, VDT expects to spend about $30,000 per year on its staff required to support the solution. Currently, the system costs the IT staff supporting the solution about $81,000 in time.

Another tangible benefit is the amount the State spends on temporary employees during the high season. VDT spent $154,595 on temporary staff in the Revenue Processing unit in FY 2017. VDT estimates it will need no temporary staffers other than during the busy season (the months of February to May). Removing these costs, VDT estimated that they would spend $102,941 on Revenue Processing temporary staffers. Given the time taken to do data verification (which the State estimates it has to do nine out of ten times a return is scanned) and batching forms (a new activity the system would reduce the need for), BerryDunn believes the projected lower cost for temporary staffers is reasonable. This was corroborated by other state revenue services. BerryDunn reached out to staff at the Maine Revenue Service (MRS) and the Oklahoma Tax Commission, both organizations that made an upgrade to Fairfax Imaging services. MRS has gone from a 50 temporary staff to 10 between 2010 and 2017, although emphasized that some of this decrease could be from an increase in e-filing. The Oklahoma Tax Commission saw a decrease in temporary workers from 45 in FY 2015 to 18 in FY 2017.

When the total costs for maintenance and operations are combined, it is a cost savings for the VDT to maintain and operate the Fairfax solution over 10 years. However, when the implementation costs are added to the overall cost of the project, it is more expensive for the VDT to upgrade to the new solution.

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).

There is a lack of functionality of the current system that the new system would address, which would improve the State's processes. The first major improvement would be in remittance processing. The current solution does not have Check-21 processing, meaning checks have to be scanned twice to be deposited in a bank. The second set of scanning machines is unreliable and cannot handle the volume that VDT experiences during busy season. The proposed ImageTrac Scanners would be able to deposit these checks with one scan.

There is a lack of functionality in other areas as well. As mentioned above, currently VDT estimates it has to perform data verification nine out of ten times. It has also had to batch its mail, because the scanners can only read one type of form at once. With hundreds of forms, the sorting and batching of mail is a significant time-draw for VDT staff. When taxpayers print out their tax forms to mail in, the sizing of the envelopes is not always uniform, and VDT staff have to spend time making sure the scanners can adjust to these changes (or manually entering the information) as well. The new system would not face these constraints.

There are also functional limits to the current scanning and imaging solution. Its support is limited. Only one ex-IBM employee supports it, and when there is need to come on site, VDT has to pay this employee a per-diem rate. Fairfax has similar solutions currently in 24 states (including all New England states), so support should be more readily available. IBM images are also in a proprietary format, which does not interface with the State's VTax information management system. Fairfax will convert all old images into a new, non-proprietary format.

The State has also had an issue with the IBM contract regarding the use of virtual machines. The State had been moving to the use of virtual machines, and the IBM contract bases its charges on capacity, not use. This led to a legal dispute in which the State agreed to purchase a server to monitor the use of IBM software. Discontinuance of IBM server usage should resolve this issue.

With many of these issues solved using a modern solution, VDT hopes it can begin to re-engineer its business processes so that it can better perform its day-to-day functions. It hopes that it can reduce costs and wait times for constituents' important activities such as refunds.

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.

Although the cost of the new solution is $992,682.54 higher over the 10-year life cycle than the State would pay if it were to remain on the current solution, the State would see large intangible benefits if it were to go to the new solution. The improvements in processes will likely save the State money in temporary staffing, and this solution certainly would be an improvement to staff user experience. Ultimately, the benefits of having a modern solution will outweigh its costs, much of which will be an implementation funded with remaining tax modernization project funds.

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 IT ABC form is different from the actual costs of the project in several ways, but not significantly. These departures are not surprising given that the VDT had not released its RFP at the time. As discussed above, the 10-year life cycle cost—a reasonable life cycle considering the need for hardware refreshes—of the Fairfax solution was slightly lower than the estimated cost in business case. One aspect missing from the analysis the State performed when examining the current costs in the business case was the inclusion of the cost of temporary workers. The State expects it will save money on these costs and may have been able to estimate these savings ahead of time.

Additional Comments on the Cost Benefit Analysis:

VDT relies on temporary workers to assist with scanning and imaging tax returns. A calculated amount of 10,407 hours and $154,595 was spent on revenue processing temps in FY 2017. VDT calculated that between February and May 2017, VDT consumed 6,600 hours and $102,941 in temporary workers, which are hours it expects to continue to need for revenue processing (this is the busiest time of year for VDT and revenue processing specifically). Therefore, the VDT estimates a roughly $50,000 decrease in the number of temporary workers once the Fairfax system is in place and achieving anticipated efficiencies.

The estimated temporary worker decrease is only an estimate. Offsets in temporary workers in other Fairfax states are not available at this time.

9.0 Impact Analysis on Net Operating Costs

1.) Perform a lifecycle cost impact analysis on net operating costs for the agency carrying out the activity, minimally including the following:

a) Estimated future-state ongoing annual operating costs, and estimated lifecycle operating costs. Consider also if the project will yield additional revenue generation that may offset any increase in operating costs.

b) Current-state annual operating costs; assess total current costs over span of new IT activity lifecycle

c) Provide a breakdown of funding sources (federal, state, one-time vs. ongoing)

2.) Create a table to illustrate the net operating cost impact.

3.) Respond to the items below.

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

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

Table 9-1 – Life Cycle Cost Analysis

Impact on Operating Costs	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	10-Year Totals
Professional Services (Non-Software Costs)											
Current Costs[3]	$235,595	$235,595	$235,595	$235,595	$235,595	$235,595	$235,595	$235,595	$235,595	$235,595	**$2,355,950**
Projected Costs[1-6]	$335,089	$184,595	$132,941	$132,941	$132,941	$132,941	$132,941	$132,941	$132,941	$132,941	**$1,583,212**
Software Acquisition, Maintenance, Support, and Licenses Costs											
Current Costs[3]	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	$105,161.81	**$1,051,618**
Projected Costs[1-6]	$1,209,468	$163,268	$166,284	$169,940	$173,192	$191,971	$180,107	$183,754	$187,544	$191,510	**$353,299**
Baseline Current Cost[1]	$340,757	$340,757	$340,757	$340,757	$340,757	$340,757	$340,757	$340,757	$340,757	$340,757	
Baseline Projected Costs	$1,544,557	$347,863	$299,225	$302,881	$306,133	$324,912	$313,048	$316,695	$320,485	$324,451	
Cumulative Current Costs[1]	$340,757	$681,514	$1,022,270	$1,363,027	$1,703,784	$2,044,541	$2,385,298	$2,726,054	$3,066,811	$3,407,568	**$3,407,568**
Cumulative Projected Costs	$1,544,557	$1,892,420	$2,191,645	$2,494,526	$2,800,659	$3,125,571	$3,438,619	$3,755,315	$4,075,800	$4,400,251	**$4,400,251**
Net Impact on Professional Services	($99,494)	$51,000	$102,654	$102,654	$102,654	$102,654	$102,654	$102,654	$102,654	$102,654	**$772,738**
Net Impact on Software Acquisition, Maintenance, Support, and Licenses Costs	($1,104,306.19)	($58,106.19)	($61,121.99)	($64,778.18)	($68,030.38)	($86,809.22)	($74,945.34)	($78,592.42)	($82,382.13)	($86,348.20)	**($1,765,420.24)**

Impact on Operating Costs	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	10-Year Totals
Net Impact on Operating Costs:	($1,203,800.49)	($7,106.19)	$41,532.01	$37,875.82	$34,623.62	$15,844.78	$27,708.66	$24,061.58	$20,271.87	$16,305.80	**($992,682.54)**

Sources

1: Fairfax Proposal

2: VDT/ADS Total of Ownership for Fairfax

3: Business Case

4: State estimate

5: Calculation based on costs of project

6: BerryDunn Proposal

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

For the purpose of impact analysis of net operating costs, BerryDunn applied the following assumptions:

- BerryDunn assumed that this table compares current and projected costs to determine a net difference. Therefore, the projected costs for remaining the same are placed against projected costs for a new solution.
- BerryDunn assumed that the ADS estimated charge for EA & Project Oversight cost, and the Independent Review cost, and Professional Services operating costs in FY 2018.
- BerryDunn assumed that the State will only realize savings in temporary workers once the new system is fully in place (beginning FY 2020).

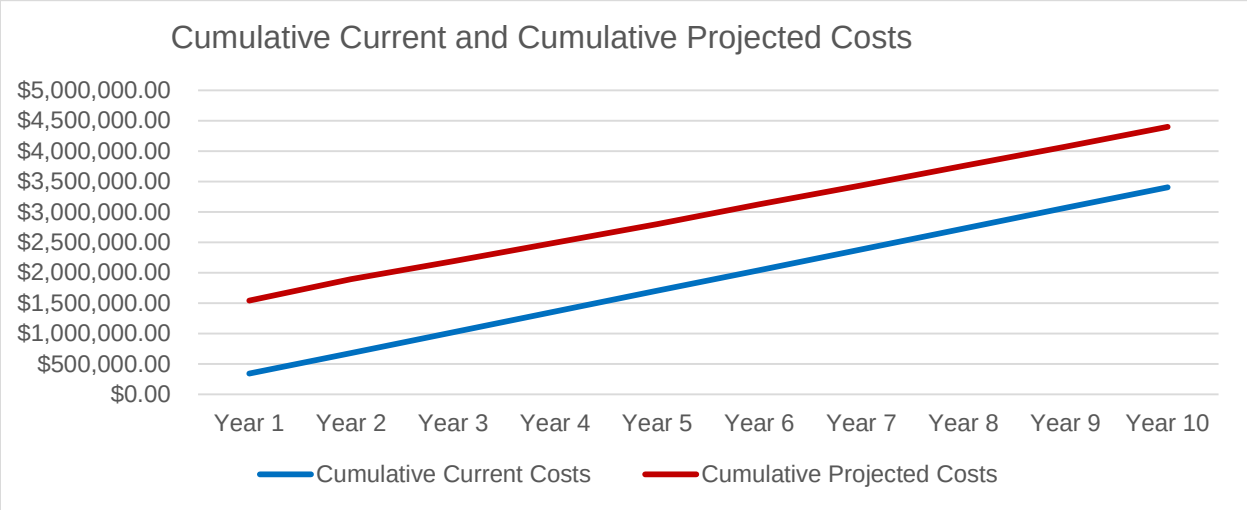
This analysis determines that VDT will pay an additional $992,682.42 in operating costs for the proposed Scanning, Imaging, Data Capture, and Remittance Processing system, over a 10-year period. The overall implementation costs ($1,197,354) are costs the VDT does not currently pay. The maintenance and operations of the system will be less expensive for the State once the Fairfax solution is fully implemented (FY 2020 – FY 2027). However, the savings in maintenance and operations are not enough to make up for the cost over the 10-year life cycle of the project.

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.

There is no federal funding for this solution.

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

There is no break-even point for this solution. This is due to the implementation cost, as the operational cost will be lower to VDT.


Cumulative Current and Cumulative Projected Costs
$5,000,000.00
$4,500,000.00
$4,000,000.00
$3,500,000.00
$3,000,000.00
$2,500,000.00
$2,000,000.00
$1,500,000.00
$1,000,000.00
$500,000.00
$0.00
Year 1
Year 2
Year 3
Year 4
Year 5
Year 6
Year 7
Year 8
Year 9
Year 10
Cumulative Current Costs
Cumulative Projected Costs

10.0 Risk Assessment and Risk Register

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

A. Ask the independent review participants to provide a list of the risks that they have identified and their strategies for addressing those risks.

B. Independently validate the risk information provided by the State and/or vendor and assess their risk strategies.

C. Identify any additional risks.

D. Ask the Business to respond to your identified risks, as well as provide strategies to address them.

E. Assess the risks strategies provided by the Business for the additional risks you identified.

F. Document all this information in a Risk Register and label it Attachment 2. The Risk Register should include the following:

- ***Source of Risk:*** *Project, Proposed Solution, Vendor or Other*
- ***Risk Description****: Provide a description of what the risk entails*
- ***Risk ratings to indicate:*** *Likelihood and probability of risk occurrence; Impact should risk occur; and Overall risk rating (high, medium or low priority)*
- ***State's Planned Risk Strategy:*** *Avoid, Mitigate, Transfer or Accept*
- ***State's Planned Risk Response:*** *Describe what the State plans to do (if anything) to address the risk*
- ***Timing of Risk Response:*** *Describe the planned timing for carrying out the risk response (e.g. prior to the start of the project, during the Planning Phase, prior to implementation, etc.)*

1. ***Reviewer's Assessment of State's Planned Response****: Indicate if the planned response is adequate/appropriate in your judgment and if not what would you recommend.*

Additional Comments on Risks:

The risks identified during this independent review can be found in the Risk Register in Section 12 of this report. The timing of the provided risks is either "prior to contract execution" or "subsequent to contract execution." For those for which a "prior to contract execution" timing is recommended, BerryDunn suggests that the entire contract be reviewed by a team of professionals with experience in reviewing contracts. This review can be multi-facetted: one team could focus on the legal components of the contract (i.e., the terms and conditions) and a separate team could be engaged to review the statement of work, schedule, milestones, and deliverables described within the contract. These reviews could be accommodated using VDT staff with contract experience, by engaging ADS, or by leveraging an external firm.

11.0 Attachment 1 – Life Cycle Cost Benefit Analysis

Table 11-1 – Life Cycle Cost Benefit Analysis Over First Five Years

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
Fiscal Year	**FY 2018-2019**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Hardware						
Scanner Equipment[1]	$171,600	$26,034	$26,034	$27,336	$29,228	$30,663
Physical Servers[2]	$14,000	$0	$0	$0	$0	$0
Hardware Total	**$185,600**	**$26,034**	**$26,034**	**$27,336**	**$29,228**	**$30,663**
Software						
Enterprise Application – License Fees[1]	$178,560	$34,436	$34,436	$35,470	$36,534	$37,630
Scanner DB[2]	$30,000	$6,000	$6,180	$6,365	$6,556	$6,753
VMs[2]		$80,138	$80,138	$80,138	$80,138	$80,138
Fairfax DB[2]	$80,000	$16,000	$16,480	$16,974	$17,484	$18,008
Software Total	**$288,560**	**$136,574**	**$137,234**	**$138,948**	**$140,712**	**$142,529**
Training						
Training[1]	$22,050		$0	$0	$0	$0
Training Total	**$22,050**	**$0**	**$0**	**$0**	**$0**	**$0**
Other						
Implementation Services[1]	$550,650					

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance
Fiscal Year	**FY 2018-2019**	**FY 2018**	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**
Other Total	**$550,650**	**$0**	**$0**	**$0**	**$0**	**$0**
Personnel – Additional						
Technical Staff/State Labor for Project Management[3]	$95,000	$0	$0	$0	$0	$0
Revenue Processing Temps[4]	$0	$154,595	$154,595	$102,941	$102,941	$102,941
3% DII Estimated Charge for EA & Project Oversight[5]	$33,594	$0	$0	$0	$0	$0
Independent Review[6]	$21,900	$0	$0	$0	$0	$0
State Labor to Operate and Maintain the Solution[3]	$0	$30,000	$30,000	$30,000	$30,000	$30,000
Personnel Total	**$150,494**	**$184,595**	**$184,595**	**$132,941**	**$132,941**	**$132,941**
Total	**$1,197,354**	**$347,203**	**$347,863**	**$299,225**	**$302,881**	**$306,133**

1: Fairfax Proposal
2: VDT/ADS Total of Ownership for Fairfax
3: Business Case
4: State estimate
5: Calculation based on costs of project
6: BerryDunn Proposal

Table 11-2 – Life Cycle Cost Benefit Analysis Over Last Five Years

Description	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
Fiscal Year	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Total**
Hardware						
Scanner Equipment[1]	$32,170	$33,778	$35,440	$37,184	$39,044	$488,511
Physical Servers[2]	$15,400	$0	$0	$0	$0	$29,400
Hardware Total	**$47,570**	**$33,778**	**$35,440**	**$37,184**	**$39,044**	**$517,911**
Software						
Enterprise Application – License Fees[1]	$38,759	$39,922	$41,119	$42,353	$43,623	$562,842
Scanner DB[2]	$6,956	$7,164	$7,379	$7,601	$7,829	$98,783
VMs[2]	$80,138	$80,138	$80,138	$80,138	$80,138	$801,380
Fairfax DB[2]	$18,548	$19,105	$19,678	$20,268	$20,876	$263,422
Software Total	**$144,401**	**$146,329**	**$148,314**	**$150,360**	**$152,466**	**$1,726,427**
Training						
Training[1]	$0	$0	$0	$0	$0	**$22,050**
Training Total	**$0**	**$0**	**$0**	**$0**	**$0**	**$22,050**
Other **Implementation Services**[1] **Other Total**	**$0**	**$0**	**$0**	**$0**	**$0**	**$550,650**
Personnel - Additional						

Description	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
Fiscal Year	**FY 2023**	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**	**Total**
Technical Staff/State Labor for Project Management[3]	$0	$0	$0	$0	$0	$95,000
Revenue Processing Temps[4]	$102,941	$102,941	$102,941	$102,941	$102,941	$1,132,718
3% DII Estimated Charge for EA & Project Oversight[5]	$0	$0	$0	$0	$0	**$33,594**
Independent Review[6]	$0	$0	$0	$0	$0	**$21,900**
State Labor to Operate and Maintain the Solution[3]	$30,000	$30,000	$30,000	$30,000	$30,000	**$300,000**
Personnel Total	**$132,941**	**$132,941**	**$132,941**	**$132,941**	**$132,941**	**$1,583,212**
Total	**$324,912**	**$313,048**	**$316,695**	**$320,485**	**$324,451**	**$4,400,251**

1: Fairfax Proposal
2: VDT/ADS Total of Ownership for Fairfax
3: Business Case
4: State estimate
5: Calculation based on costs of project
6: BerryDunn Proposal

12.0 Attachment 2 – Risk Register

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

Risk #: R1	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High
Source of Risk: All			
Risk Description: **Phase I (Check-21 Functionality, Personal Income Tax, Renter Rebate Claim, Homestead Declaration, and Property Tax Adjustment) is not completed until early 2019, delaying the implementation of the solution due to income tax processing season.** If the implementation of Phase I is not completed before December 31, 2018, the State will likely have to use its old system for many of its taxes for another year. The largest of these taxes, the State personal income tax, is scheduled to be finished in Phase I. If it is not, gains in productivity when processing taxes will not be realized until 2020, and the use of the newly procured scanning system will be delayed. This could also require the extension of the current contract with IBM			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: A. Will make a call in November to do in legacy based on confidence of how Phase I is going.			

Risk #: R1	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High

B. Provide financial incentives to Vendor to get it done early.

Timing of Risk Response: A: Subsequent to Contract Execution

B: Prior to Contract Execution

Reviewer's Assessment of State's Planned Response: VDT resources provided two strategies to address this concern. Their first response is to determine whether or not they need to use the Banctec/IBM by November 2018. This seems reasonable. If they decide the first phase of the solution will not be ready by November, they can take actions, such as hiring additional temporary workers, to alleviate the effects of the delay. It would come with additional cost, but would likely not cause the agency additional issues.

The second response is to remove the retainage and lower the value of the "Upon Acceptance of Phase I" Payment if the Vendor completes the first phase by 11/15/18. The change can be seen in the draft contract VDT intends to provide to Fairfax. For each month Phase I is delayed, the amount of the payment would fall and the amount of that payment held in retainage would rise. The change is illustrated in the table below. The Vendor will have to agree to this change in the contract, but this would incentivize the Vendor to complete Phase I earlier.

Professional Services Deliverable Milestone	Amount	10% retainage	Total Payment due at Milestone Completion
Upon Acceptance of Phase I (if by 11/15/18)	$ 154,485	$ 0	$ 154,485
Upon Acceptance of Phase I (if by 12/15/18)	$ 150,000	$ 15,000	$ 135,000
Upon Acceptance of Phase I (if by 1/15/19)	$ 140,000	$ 25,000	$ 115,000

Risk #: R2	Risk Likelihood/Probability: High	Risk Impact: Low	Overall Risk Rating: Medium

Source of Risk: Federal Government/State Legislature

Risk Description: Changes in federal tax law ("To provide for reconciliation pursuant to titles II and V of the concurrent resolution on the budget for fiscal year 2018") may lead to changes in Vermont Tax Law.

The changes to federal tax law may lead to the Vermont State Legislature making changes to its tax laws. This might lead to the State changing its tax forms going forward into 2019 and beyond, and these changes will likely come into effect in late April through June 2018. If these changes were to occur, they would occur while the project is already in progress. There is a chance that some of the forms have already been designed for the new system and would need rework. This could lead to additional costs or delays in schedule.

Risk #: R2	Risk Likelihood/Probability: High	Risk Impact: Low	Overall Risk Rating: Medium
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: Negotiate schedule to do TY18 forms development after July 1st. Rearrange work so focus is on prior year forms first.			
Timing of Risk Response: Prior to contract execution			
Reviewer's Assessment of State's Planned Response: The State intends to adjust the scheduled implementation of tax forms so that training on task year 2018 forms occur later in Phase I (after July 1, 2018). The Vendor would work on previous tax year forms (2012-2017) that are unaffected by the new federal tax law during that time. This would allow the State time to determine what changes the legislature might make to its tax forms and prevent the need for rework. The anticipated schedule adjustment is minor.			

Risk #: R3	Risk Likelihood/Probability: Low	Risk Impact: High	Overall Risk Rating: Medium
Source of Risk: State			
Risk Description: VDT does not have backup staff if key resources were to leave the project or department. VDT and ADS staff assigned to VDT have experienced staff. However, neither agency has a "deep bench." If assigned staff leave or are moved off the project, there are no other immediately available staff who can perform the same tasks on the project. Loss of any staff and their expertise could negatively impact the project's schedule.			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: A. Not rely on ADS staff, find a tax resource to work with Ann. B. Will have multiple resources for each function.			
Timing of Risk Response: Subsequent to Contract Execution			
Reviewer's Assessment of State's Planned Response: VDT's two responses are reasonable ways to mitigate this risk. The first response would certainly alleviate concerns about losing ADS employee Ann Lane, as it would help keep her expertise from being lost. However, they could still lose her and it would negatively impact the problem. VDT also claimed it was common practice to cross-train all of their employees, helping prevent one employee from being the only expert in a certain functional area. This would be an effective way to help lower the negative impact of losing ADS or VDT staff on the project, but would not remove the risk completely.			

Risk #: R4	Risk Likelihood/Probability: Medium	Risk Impact: Medium	Overall Risk Rating: Medium
Source of Risk: Current Vendor (IBM)			
Risk Description: The relationship with VDT's current Vendor could lead to difficulty in data migration and additional costs in maintaining the current solution. The State does not have a positive relationship with its current scanning and imaging Vendor and has concerns with two aspects of the project. A. The images that IBM currently has are proprietary. The State is concerned that IBM will not work with the new Vendor to help them transfer the current images into a format (e.g., PDF) that can be read by many different applications. Any dispute could impact importation of legacy tax data. B. VDT's current contract with IBM is a one-year contract that runs until June 30, 2018. Historically, these have been annual contract renewals, and the State expects to renew at least one more time. However, Fairfax's latest schedule in its BAFO has the project ending in December 3, 2019. This would mean that if the State were to do two one-year renewals, they would pay for an additional six months in which the new solution would be fully operational.			
State's Planned Risk Strategy: 1. Mitigate 2. Accept			
State's Planned Risk Response: A. Engage with ADS to get legal review from IT perspective on images. B. See if we can do a 6 month contact.			
Timing of Risk Response: Prior/subsequent to contract execution			
Reviewer's Assessment of State's Planned Response: In response to the first aspect of the risk, VDT intends to have legal resources examine the current contract with IBM. ADS does have resources familiar with the contract due to the previously legal dispute in which the IBM solution was being used on virtual machines. The State believes it owns the images of the tax returns, but do have some concern about ownership of the forms that capture the data. VDT also said that at least one state—Maine—has transferred its tax form images from an IBM solution to Fairfax, which they believe prove it can be done. VDT has been in contact with Maine Revenue Service about other aspects of the procurement. The State response to the second aspect of the risk also seems reasonable, although it is more of a mitigation than an acceptance. The State will try to only purchase what it needs from IBM, but if a one-year renewal option is the only renewal option, the State will have to accept it to be able to process forms. It may be prudent to have the old system as a back-up option for six months as well.			

Risk #: R5	Risk Likelihood/Probability: High	Risk Impact: Medium	Overall Risk Rating: Medium
Source of Risk: State			
Risk Description: VDT has a "busy season" that could negatively impact the project.			

The State is very busy during tax season (from March through May) when it is processing income tax returns. This means its staff have less time to devote to the project. The current iteration of the project plan has the implementation of Phase I and Phase II occurring during the State's busy season. The Vendor's proposed schedule in its BAFO also has the installation of its hardware and software in April/May of 2018, coinciding with income tax processing season.
State's Planned Risk Strategy: 1./2. Mitigate 3. Accept
State's Planned Risk Response: A. Staff for it with additional temps. B. Crosstrain. C. Next year efficiencies will be recognized.
Timing of Risk Response: Subsequent to contract execution
Reviewer's Assessment of State's Planned Response: VDT seems to have acceptable mitigation approaches prepared for the "busy season" during phase II. VDT does not intend to reduce its temporary employees in the 2019 tax season, which means that the staffing capabilities they possess will remain the same. Additionally, Fairfax's proposed schedule would have some of the most significant capabilities (Check-21, personal income tax on the new system) be functional at that time. This should raise the efficiency of the agency. Finally, it is a positive sign that VDT accepts that, during the project, its staff will be busier.

Risk #: R6	Risk Likelihood/Probability: Low	Risk Impact: Medium	Overall Risk Rating: Medium
Source of Risk: State			
Risk Description: The State may incur additional costs to make changes to its current tax system, VTax, to accommodate the scanning and imaging system. The State currently has FAST Enterprises, Inc. as its Vendor for its tax system. FAST's rate is $175 per hour. While FAST has not charged VDT for the changes it has had to make to VTax so far, this project could require changes that FAST would have to make. If FAST decides to charge for these changes, it would be at additional cost to the State.			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: Look to special funds if need be, not CMF. Rely on State resources to do the work.			
Timing of Risk Response: Subsequent to Contract Execution			
Reviewer's Assessment of State's Planned Response: The State's response to this risk seems reasonable. The State is hoping, first and foremost, to avoid the risk by using its own resources to do much of the technical work on its side. This will limit FAST's involvement on the project. If FAST has to become involved, and if FAST decides to charge VDT for its services, VDT has identified other funds that could pay for the project fund, other that the computer modernization fund. VDT has several options which should limit, prevent this risk from having a major impact on the project.			

Risk #: R7	Risk Likelihood/Probability: High	Risk Impact: High	Overall Risk Rating: High
Source of Risk: State			
Risk Description: Contract negotiation could take longer than expected, delaying the start and affecting whether Phase I of the project can be completed in 2018. There is the possibility that a contract reviewed by VDT could be delayed by a review from ADS and the Attorney General's office. The current timeline proposed by the Vendor includes starting on March 1, 2018 and completing Phase I in December 2018. The schedule does not leave much time for a delay in the start of the project.			
State's Planned Risk Strategy: Accept			
State's Planned Risk Response: Continue to move forward as we can.			
Timing of Risk Response: Prior to Contract Execution			
Reviewer's Assessment of State's Planned Response: VDT understands how important it is for the project to start on time (see risk one) and is taking a number of steps to try to speed up the process. Having a clear understanding of the steps and timelines for contract execution is important for timely completion of the contracting process. Delays in contract review and approval are not uncommon.			