

# Independent Review

## Licensing and Enforcement System

For the  
State of Vermont  
Department of Liquor and Lottery



**Submitted to the  
State of Vermont, Agency of Digital Services  
December 14, 2020**

**FINAL**

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## 1 Executive Summary

For all Information Technology (IT) activities over \$1,000,000, Vermont statute (or at the discretion of the Chief Information Officer [CIO]) requires an Independent Review by the Office of the CIO before the project can begin. The State of Vermont (State) retained BerryDunn to conduct an Independent Review to evaluate the viability of a licensing and enforcement system for the State's Department of Liquor and Lottery (DLL) and provide a recommendation to proceed or not to proceed with executing a contract with the State project team's preferred vendor.

In March 2020, the DLL issued a Request for Proposals (RFP) to replace its disparate antiquated systems with an integrated environment through the acquisition of a software solution using the Salesforce platform. After evaluation of the responses, the State's preferred vendor is Tech Mahindra, a large technology company based in India offering technical services to a number of industries, including the public sector and government.

It is important to note that Tech Mahindra has not previously provided implementation services for a liquor or lottery licensing and enforcement agency, so Vermont will be the first state to implement the proposed solution. The contract between the DLL and Tech Mahindra has not been developed. Therefore, this Independent Review Report is a point-in-time document that reflects current key findings, risks, and recommendations. BerryDunn is not recommending a no-go decision regarding the DLL licensing and enforcement project, but there are several high-impact/probability risks that BerryDunn is recommending be mitigated by the Agency of Digital Services (ADS) and the DLL before entering into contract negotiations and executing a contract with Tech Mahindra.

## 1.1 Cost Summary

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

**Table 1.1: Cost Summary**

IT Activity Lifecycle	Cost and Funding Source
Total Lifecycle Costs (5 Years)	\$4,607,249
Total Implementation Costs	\$2,272,917
New Annual Operating Costs (5 Years)	\$2,698,012
Current Annual Operating Costs (5 Years)	\$461,800
Difference Between Current and New Operating Costs	\$2,236,212
Funding Source(s) and Percentage Breakdown of Multiple Sources	100% State Funds

## 1.2 Disposition of Independent Review Deliverables

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

**Table 1.2: Independent Review Deliverables**

Deliverable	Highlights From the Independent Review Include Explanations of Any Significant Concerns
Acquisition Cost Assessment	The total acquisition cost is \$2,272,917. Based on the results of BerryDunn's analysis the State appears to be paying comparable costs to those licensing and enforcement systems available in the market and implemented by other state government agencies.
Technology Architecture and Standards Review	The proposed solution is in alignment with the State's technology architecture standards and non-functional requirements. The preferred vendor is proposing to use the State's Salesforce platform and Mulesoft for integration. In order to meet some of the DLL's functional requirements, Salesforce AppExchange applications will also be used.  BerryDunn identified that the proposed levels of post-implementation services do not meet the State's needs. In order to better understand the option of having Tech Mahindra provide the necessary levels of services (rather than relying on State resources), the ADS IT

Deliverable	Highlights From the Independent Review Include Explanations of Any Significant Concerns
	Director, assigned to the DLL, requested that Tech Mahindra provide a description of its proposed level one services and associated cost. However, that information was not available at the time of this Independent Review.
Implementation Plan Assessment	BerryDunn believes the proposed 10-month implementation timeline is not sufficient given the size of the scope and complexity of the project. The proposed project plan and schedule does not include all project activities and does not provide sufficient durations to complete the activities that are included.
Cost-Benefit Analysis	The new licensing and enforcement system is expected to improve customer service, increase operational efficiencies, improve employee moral, and reduce the risk of system failure. While the State will have an increase in annual operating costs for the new system, BerryDunn and the DLL project team feel the intangible benefits outweigh the costs.
Analysis of Alternatives	Using the Request for Information (RFI) process and the competitive bid and proposal evaluation process was a sound approach to understanding the State's options for implementing a new licensing and enforcement system for the DLL.
Impact Analysis on Net Operating Costs	The net impact on operating cost would include a \$2,236,212 increase across the five-year lifecycle. The costs will not reach a breakeven point due to the annual cost for vendor maintenance services. BerryDunn does not have concerns about the impact on net operating costs due to the results of the cost-benefit analysis included in Section 8: Cost-Benefit Analysis.
Security Assessment	Tech Mahindra reported that it fully understands the importance of system and information security. The proposed development team will configure the system so that it is in compliance with state and federal security requirements.

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

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

**Table 1.3: Project Risk Summaries and Ratings**

Risk ID	Risk Description	Risk Likelihood/Probability	Risk Impact	Overall Risk Rating
1	Tech Mahindra's quality of services, and the licensing and enforcement system it delivers, might not meet the State's expectations and business needs.	Medium	High	High
2	The lack of a dedicated State contract and/or vendor manager might result in noncompliance with Tech Mahindra's contractual obligations.	Medium	High	High
3	The project might experience delays in the implementation timeline due to limited availability of DLL project team members.	Medium	High	High
4	The implementation schedule might be delayed, or the licensing and enforcement system will not satisfy the State's requirements, due to inadequate UAT.	High	High	High
5	The proposed project plan and schedule might not allow sufficient time to complete all required activities for a successful implementation.	Medium	High	High
6	The project deliverables provided by Tech Mahindra might not align with the State's expectations.	High	Medium	High
7	There is a risk of project schedule delays due to the lack of a payment schedule associated with contract deliverables, milestones, and costs.	Low	High	Medium
8	The lack of an organizational change management (OCM) plan as part of this project could have negative impact on staff and adoption of the DLL licensing and enforcement system and realizing the business benefits of the modernized system.	Low	High	Medium
9	The State's Customer Relationship Management (CRM) governance framework is critical for the development and implementation of the DLL licensing and enforcement project and is new to the State of Vermont.	High	High	High

## 1.4 Other Key Issues

Tech Mahindra proposed two cost options in its response to the State's RFP. The first pricing option (Option One) included the configuration of Salesforce Services Cloud and Salesforce Community Cloud, which aligned with the technical and functional responses in the proposal. The second pricing option (Option Two) included leveraging pre-built standard licensing components from BasicGov (a Clariti licensing and permitting system). BerryDunn identified that Tech Mahindra submitted a best and final offer (BAFO) for Option Two, leveraging BasicGov.

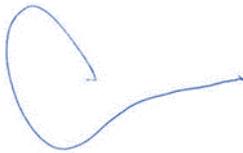
During our interviews with the State, it was discussed that State's intent is to move forward with Option One, which did not align with BerryDunn's assessment of Tech Mahindra's BAFO. The ADS IT Director, assigned to the DLL, participated in the vendor interview and during that interview, it was confirmed that Tech Mahindra assumed the State preferred Option Two. The ADS IT Director communicated the State's preference for proceeding with Option One and requested a revised BAFO. BerryDunn did not identify what ultimately led to the misunderstanding between the State and Tech Mahindra, but we believe this issue has been resolved.

## 1.5 Recommendation

BerryDunn is not recommending a no-go decision; however, there are several high-impact/probability risks that should be mitigated by the State before executing the contract.

Independent Reviewer Certification

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



12/14/2020

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**Independent Reviewer Signature**

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**Date**

**1.6 Report Acceptance**

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

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**ADS Oversight Project Manager**

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**Date**

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**State of Vermont Chief Information Officer**

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**Date**

## 2 Scope of this Independent Review Report

### 2.1 In-Scope

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

The Independent Review Report includes:

- An acquisition cost assessment
- A technology architecture review and standards review
- An implementation plan assessment
- A cost analysis and model for benefit analysis
- An analysis of alternatives
- An impact analysis on net operating costs for the agency carrying out the activity
- A security assessment

This Independent Review used the following schedule:

- Week of October 19, 2020: Conduct project initiation; develop the participation memo and schedule State and vendor interviews; review documentation
- Weeks of October 19, 2020, and October 26, 2020: Conduct interviews with the State and vendor; document initial findings
- Week of October 26, 2020, and November 2, 2020: Conduct additional research; draft the Independent Review Report and the Risk Register
- Week of November 9, 2020 and November 16, 2020: Provide the preliminary Independent Review Report to the State; collect feedback; update the Independent Review Report
- Week of November 16, 2020: Submit the proposed final draft Independent Review Report to the State
- Week of December 14, 2020: Present the Independent Review Report to the CIO; complete any follow-up work and updates to the Independent Review Report; obtain CIO sign-off via the Oversight Project Manager (OPM) on the Independent Review Report; facilitate the closeout meeting

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## 2.2 Out-of-Scope

This Independent Review does not include the analysis of a draft contract between the State and Tech Mahindra because the State only recently notified its intent to enter into contract negotiations.

### 3 Sources of Information

#### 3.1 Independent Review Participants

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

**Table 3.1: Independent Review Participants**

Name	Organization	Participation Topic(s)
Morgan Amell	ADS	Project Management
Kate Carter	ADS	Project Management
Patrick Delaney	DLL	Project Leadership
Warren Harris	ADS	IT
David Kaiser	ADS	IT
Martin Prevost	DLL	Project Leadership
Skyler Genest	DLL	Project Leadership
Linda Vincent	ADS	IT, Vendor Interview
Brian Evans	DLL	Project Leadership/Finance
Troy Morton	ADS	IT
Arpit Shastri	Tech Mahindra	Vendor Interview
Himanshu Swami	Tech Mahindra	Vendor Interview
Manoj Gupta	Tech Mahindra	Vendor Interview

#### 3.2 Independent Review Documentation

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

**Table 3.2: Independent Review Documentation**

Document Name	Description	Source
Approved IT Activity Business Case (ABC) Form	The business case and cost analysis for the procurement of a licensing and enforcement system for the DLL	ADS
CRM Participating Agreement	The State's agreement for departments and agencies utilizing the CRM platform	ADS

Document Name	Description	Source
DLL Licensing and Enforcement Replacement System Project Charter	The approved charter for the DLL licensing and enforcement project	ADS and DLL
RFI Responses	Responses received by the State	ADS
RFP for Licensing and Enforcement System (Including All Attachments)	The State's RFP for the procurement of a new licensing and enforcement system, implementation services, and operational support	ADS
RFP Scoring Sheet	The scores for the technical proposals received through the RFP process	ADS
Technical Response From Tech Mahindra	The vendor responses for services requested by the State.	ADS
BAFO Responses from Tech Mahindra	Tech Mahindra's responses to the State's request for revised cost	ADS

## 4 Project Information

### 4.1 Historical Background

When the 21<sup>st</sup> Amendment to the U.S. Constitution repealed the Volstead Act (Prohibition), the process of determining the method for regulating alcohol sales and distribution was transferred to state governments. As a result, Vermont created the Division of Liquor Control (DLC) in 1933 for the purpose of issuing liquor licenses and permits, providing education, and the enforcement of state and federal laws related to alcohol and tobacco.

Vermont owned and operated many of its own liquor retail stores until 1996, when the State opted to transition completely to an agency system. Agency stores are privately owned retail locations that contract with the DLL to sell spirits and fortified wines for the State. Vermont currently has approximately 80 agency stores around the state that are located in grocery stores, local convenience stores, and gas stations. The contractual relationships with the agency stores allows for a wide variety of products to be sold at consistent pricing throughout the State.

Public Act No. 82 established Vermont Lottery Commission in 1977. The purpose of the Lottery was to “produce the maximum amount of net revenue consonant with the dignity of the State and the general welfare of the people.”<sup>1</sup> The Vermont Lottery’s profits were dedicated to the use by the State’s General Fund until 1998, when Vermont Legislature mandated that all profits go to the State Education Fund.

In 2018, the Vermont Legislature merged the Department of Liquor Control (DLC) and the Vermont State Lottery, creating the DLL. The DLL strives to create common licensing and enforcement processes across its Division of Liquor Control and Division of Lottery to benefit from the use of a shared platform.

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<sup>1</sup> <https://lottery.vermont.gov/about-us>

## 4.2 Project Goal

The State seeks to achieve the following business values with a new system:

- **Risk reduction** by replacing an obsolete system that hinders efficiency of operations and that represents a chance of system failure
- **Improved customer service** by streamlining the license application process, which is currently time consuming and cumbersome for users
- **Adherence to compliance** by having a single repository for data that will allow users to easily schedule compliance checks and investigations and capture the results for analysis

The DLL is seeking a solution to meet the following business needs:

- Manage the licensing and/or certification of State businesses that sell or serve alcohol beverages
- Manage the licensing of State businesses that sell tobacco products and/or lottery games
- Manage the licensing and sales reporting of Break Open Tickets in the State
- Manage the compliance assignments, investigation results, and outcomes involved in the enforcement of statutes and regulations related to the DLL
- Provide meaningful information on the data collected

## 4.3 Project Scope

The DLL licensing and enforcement project scope of work includes procurement of the following:

- A technology solution that addresses the DLL's business needs
- Professional services for project management during the implementation of the licensing and enforcement technology solution
- Professional services to perform technical work in support of the licensing and enforcement technology solution implementation
- Professional services for maintenance and support of the implemented licensing and enforcement technology solution

## 4.4 Major Deliverables

Table 4.1 provides a high-level mapping of the phases, activities, and deliverables as articulated in Tech Mahindra’s technical proposal and in the vendor interview.

**Table 4.1: Project Deliverables and Phases Proposed by the Vendor**

Phase	Activities	Deliverables
Initiation	<ul style="list-style-type: none"> <li>Project kickoff</li> <li>Team onboarding</li> <li>Activities planning</li> </ul>	<ul style="list-style-type: none"> <li>Project charter</li> <li>Kickoff document</li> <li>Baseline project plan for implementation</li> </ul>
Discovery	<ul style="list-style-type: none"> <li>Due diligence of the existing system</li> <li>Fit-gap analysis</li> <li>Baseline and categorization customization and integration requirements</li> <li>Data migration strategy</li> <li>Baseline implementation plan</li> </ul>	<ul style="list-style-type: none"> <li>Requirements specification documents</li> <li>High-level data and security model</li> <li>Functional specification for enhancements and integration</li> <li>Data migration plan</li> <li>Integration process, attribute mapping, and notification mechanism</li> </ul>
Design and Development	<ul style="list-style-type: none"> <li>Development process</li> <li>Integration setup with multiple systems</li> <li>Data migration activities</li> </ul>	<ul style="list-style-type: none"> <li>Design and technical specification documents</li> <li>Data and security model</li> <li>Workflows with approval matrix</li> <li>Integration setup with external systems</li> </ul>
Testing and Training	<ul style="list-style-type: none"> <li>End-to-end testing</li> <li>Training material preparation</li> <li>UAT environment setup</li> <li>UAT</li> <li>User training</li> </ul>	<ul style="list-style-type: none"> <li>Executed functional test cases and reports</li> <li>User training document and training plan</li> <li>UAT approval signoff</li> </ul>
Deployment	<ul style="list-style-type: none"> <li>Go/no-go decision</li> <li>Go-live activities</li> <li>Production move</li> <li>Warranty support</li> </ul>	<ul style="list-style-type: none"> <li>Deployment package report</li> <li>Deployment status</li> <li>Validation reports</li> </ul>

#### 4.5 Project Phases and Schedule

Table 4.2 is a summary of Tech Mahindra’s project phases and originally proposed estimated start and estimated completion dates. Due to the delay in starting contract negotiations with the preferred vendor, the dates below will change.

**Table 4.2: Tech Mahindra’s Proposed Project Phases and Schedule**

Project Phase	Estimated Start Date	Estimated Completion Date
Initiation	November 2, 2020	November 5, 2020
Discovery	November 9, 2020	February 5, 2021
Design	November 30, 2020	January 6, 2021
Development	January 11, 2021	June 11, 2021
System Testing	June 14, 2021	July 2, 2021
UAT	July 5, 2021	July 30, 2021
Deployment	August 2, 2021	August 6, 2021
Warranty Support	August 9, 2021	October 8, 2021

## 5 Acquisition Cost Assessment

Table 5.1 includes a summary of total implementation costs reported to BerryDunn during this Independent Review. Please see Attachment 1 – Lifecycle Cost-Benefit Analysis for a breakdown of the total implementation costs.

**Table 5.1: Acquisition Cost Assessment**

Acquisition Costs	Cost	Comments
<b>Hardware</b>	\$0	The proposed solution is cloud-based and does not require hardware costs.
<b>Software/License</b>	\$185,353	The cost includes the AppExchange subscription fee and Salesforce license fee.
<b>Requirements</b>	\$280,000	This cost was included in Tech Mahindra's BAFO.
<b>Design, Development, and Testing</b>	\$870,000	The cost is based on Tech Mahindra's BAFO.
<b>Implementation Services</b>	\$90,000	The cost is based on Tech Mahindra's BAFO.
<b>Quality Management</b>	\$50,000	The cost is based on Tech Mahindra's BAFO.
<b>Project Management</b>	\$140,000	The cost is based on Tech Mahindra's BAFO.
<b>Training</b>	\$50,000	The cost is based on Tech Mahindra's BAFO.
<b>Other Contracted Professional Services</b>	\$300,000	Other contracted services include services for integration with other State systems.
<b>ADS Project Management</b>	\$192,000	The cost is based on the State's projections.
<b>ADS Security</b>	\$16,800	The cost is based on the State's projections.
<b>ADS Enterprise Architect (EA)</b>	\$75,264	The cost is based on the State's projections.
<b>Independent Review</b>	\$23,500	
<b>Total One-Time Acquisition Costs</b>	<b>\$2,272,917</b>	

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

BerryDunn worked with ADS and Tech Mahindra to validate the acquisition costs during the discovery and fact-finding activities completed during this Independent Review. Based on the most current acquisition costs, the project team will be updating the IT ABC Form and routing the form for review and approval.

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

In 2018, the State issued an RFI to understand options and cost estimates for replacing its current licensing and enforcement systems. The State provided the RFI responses to BerryDunn for our review. Implementation cost estimates provided by most respondents ranged from approximately \$1,120,000 to \$2,600,000.

BerryDunn also researched licensing systems implemented specifically for liquor/alcoholic beverage control state agencies in order to conduct a system acquisition cost comparison. The licensing system market is fairly large, and there are varying licensing needs for other state agencies (e.g., nursing, real estate, liquor and tobacco, and engineering). Table 5.2 provides a comparison of what other states have paid to acquire a similar system.

**Table 5.2: Acquisition Cost Comparison**

Vendor	State/Agency	Solution	Approx. Contract Value (Adjusted for Inflation)
Accela	Virginia Alcoholic Beverage Control Authority	Licensing system (2017)	\$1,791,567
Computronix	Arizona Department of Liquor Licensing and Control	Web-based integrated eLicensing and imaging system that includes a public portal and back-office functionality (2016)	\$1,688,708
Computronix	California Department of Alcoholic Beverage Control	Licensing and compliance system (2005)	\$2,194,168
Deloitte Clariti/Salesforce	Michigan Liquor Control Commission	Case management system for licensing, enforcement, executive services, and finance (2015)	\$1,137,446

Source: GovWin IQ

In addition to these examples, BerryDunn also found pre-RFP examples of state liquor agencies announcing their desire to procure licensing and enforcement software. According to GovWin IQ, the Oregon Liquor Control Commission might have a requirement in 2021 for marijuana and liquor licensing compliance software, with an expected contract value of \$2,500,000. Also, the Maine Bureau of Alcoholic Beverages and Lottery Operations might have a requirement for a liquor licensing and enforcement web application in 2020, with an expected contract value of \$1,000,000. Given potential differences in functionality included in these systems acquired (or potentially acquired) by other states, the contract values are still relatively similar. When comparing with the DLL's one-time acquisition costs (subtracting costs for ADS project management, security, EA, and the Independent Review to be more comparable), the DLL's subtotal is \$1,965,353.

Based on our analysis, the State will be paying comparable costs to those estimates received through the State's RFI process and those costs other states have paid for licensing and enforcement systems.

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

Based on the results of BerryDunn's analysis provided in 2. Cost Comparison above, the State appears to be paying comparable costs to those licensing and enforcement systems available in the market and implemented by other state government agencies.

## 6 Technology Architecture and Standards Review

1. **State's IT Strategic Plan:** Describe how the proposed solution aligns with each of the State's IT Strategic Principles:
  - 1) Leverage successes of others, learning best practices from outside Vermont
  - 2) Leverage shared services and cloud-based IT, taking advantage of IT economies of scale
  - 3) Adapt the Vermont workforce to the evolving needs of state government
  - 4) Apply enterprise architecture principles to drive digital transformation based on business needs
  - 5) Couple IT with business process optimization, to improve overall productivity and customer service
  - 6) Optimize IT investments via sound Project Management
  - 7) Manage data commensurate with risk
  - 8) Incorporate metrics to measure outcomes

In accordance with the State's requirements, Tech Mahindra's proposed solution will be built on Salesforce Service Cloud and Salesforce Community Cloud platforms. The implementation of Salesforce aligns with the State's principles by leveraging shared cloud-based services as an opportunity to continue relying on economies of scale and reduce costs to the State.

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

Based on Tech Mahindra's proposed platforms and technologies for the licensing and enforcement system, the solution is sustainable.

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

The Salesforce platforms have all the appropriate levels of security and meets the applicable State and federal requirements.

4. **Compliance with the principles enumerated in the ADS Strategic Plan of January 2020** (<https://digitalservices.vermont.gov/sites/digitalservices/files/documents/ADSStrategicPlan2020.pdf>)

Based on our assessment, Tech Mahindra's proposed services and licensing and enforcement system align with the four guiding principles outlined in the ADS Strategic Plan.

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

The State did not explicitly require the new licensing and enforcement system to be compliant with Section 508 Amendment to the Rehabilitation Act, but based on our research, Salesforce follows internationally best practices in Section 208 and the Web Content Accessibility Guidelines (WCAG) 2.0 Level AA.

- 6. 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 new licensing and enforcement system will rely on the disaster recovery plan provided through the State's agreement with Salesforce.

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

Salesforce provides the ability to configure and manage the lifecycle of records from creation to disposition. Tech Mahindra will configure the system in accordance with the DLL's record retention schedules and the State's information management standards and best practices.

- 8. 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?

Tech Mahindra is proposing level two and level three support for incident and request management services post-implementation. The proposal describes a hybrid support model for post implementation services, with application support between 8:00 a.m. and 5:00 p.m. Eastern Standard Time (EST) and on-call support for high-impact issues or requests.

During interviews with the State and Tech Mahindra, it was identified that the proposed levels of post-implementation services do not meet the DLL's needs because it does not include business application and level one help desk support. In order to better understand the option of having Tech Mahindra provide the necessary levels of services (rather than relying on State resources), the ADS IT Director requested that Tech Mahindra provide a description of its proposed level one services and associated cost. However, that information was not available at the time of this Independent Review.

- 9. 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 new system will use Mulesoft and Salesforce's open application programming interfaces (APIs) for data integration with external systems. The DLL's system requirements include the following interfaces:

- Lottery gaming system – Send licensee application data to the gaming system
- State of Vermont tax system – Request status of tax compliance for new lottery agents
- State of Vermont child support system – Request status of child support compliance for new lottery agents

**Additional Comments on Architecture:**

In support of the implementation of a statewide cloud-based platform solution, ADS has created a CRM Platform Participating Agreement, which allows ADS to assist the DLL with the implementation of its new licensing and enforcement system. The DLL's project will be governed by the State's CRM framework, requiring ADS, DLL, and Tech Mahindra to work closely together throughout the project lifecycle. Within the State's CRM Participation Agreement, it states that the platform is early in its development, and the CRM onboarding model is expected to evolve over time. The DLL licensing and enforcement project might present the need for ADS to refine and advance its policies, procedures, and processes to fully accommodate the DLL project.

## 7 Assessment of Implementation Plan

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

Tech Mahindra proposed a 10-month implementation timeline, covering all the necessary phases for the project. However, the corresponding project plan and schedule, included in Tech Mahindra's proposal, does not include all project activities and does not provide sufficient durations to complete the activities that are included. For example, Tech Mahindra's project plan has not accounted for the development of key project deliverables such as test scripts, test cases and results, or the knowledge transfer/transition activities described in other sections of the proposal. Additionally, Tech Mahindra has only estimated two days for developing the training plan, two days for developing the data migration plan, and three days for preparing user training material.

Tech Mahindra's proposal states that the project manager will not provide a detailed project plan with exact duration and dates until after the requirements phase of the project, which is planned for approximately 14 weeks after contract execution. BerryDunn highly recommends the State ask Tech Mahindra to provide a more detailed project plan and schedule (as part of the Implementation Master Schedule [IMS]) than what was included in the RFP response.

A risk related to the proposed timeline and risks that could have an impact on the implementation timeline are articulated in detail in Attachment 2 – Risk Register.

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

The DLL project leadership team reported the licensing and enforcement divisions have a strong desire for a new system and are committed to participating in the project.

The DLL's plan for OCM does not include key activities such as assessing the organization's readiness for change and implementing processes for collecting feedback from stakeholders. The State might benefit from taking a more systematic OCM approach as a way to help ensure all user groups fully adopt the capabilities available in the new system, in turn maximizing on its IT investment

The country is in the middle of dealing with the COVID-19 pandemic, requiring the State to adapt to a lot of change including changes to daily routines and working from home full time. The State's tolerance for more change could be lower than any other time.

See Risk #8 in Attachment 2 – Risk Register for more information.

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

### A. Project Management

Tech Mahindra has proposed the appropriate project management deliverables; however, it will be important that the State and vendor use the templates and processes defined by ADS' Enterprise Project Management Office (EPMO) to support the DLL's project management practices, deliverables, and activity management.

### B. Training

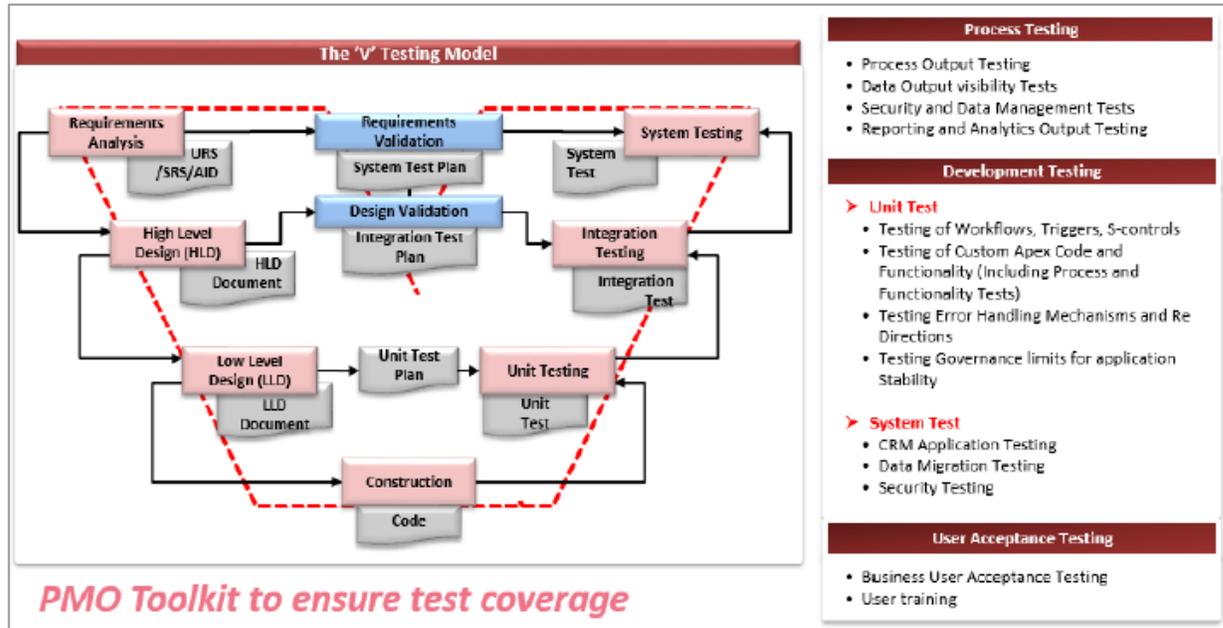
Tech Mahindra is proposing a train-the-trainer approach. This will require the State to identify 'Super Users', who will be given extensive training on the system and associated business processes. The State's Super Users will be responsible for providing training to other users. Proposed training deliverables include a training plan, training videos, and other training documentation.

The DLL will need to identify Super Users to support Tech Mahindra's approach training.

### C. Testing

Tech Mahindra proposed using a Verification and Validation model (V-model) to the software development lifecycle (SDLC), where there is testing parallel to each development phase. Figure 1 below provides details about the proposed testing model.

Figure 1: Proposed Testing Model



BerryDunn does not have any concerns assuming the State’s requirements are clear and complete, as it is difficult to go back to any stage and make changes with the V-model approach to the SDLC.

Tech Mahindra proposed the following key deliverables:

- System Test Plan
- System Test Cases
- Test Scripts
- UAT Test Plan
- Defect Reports

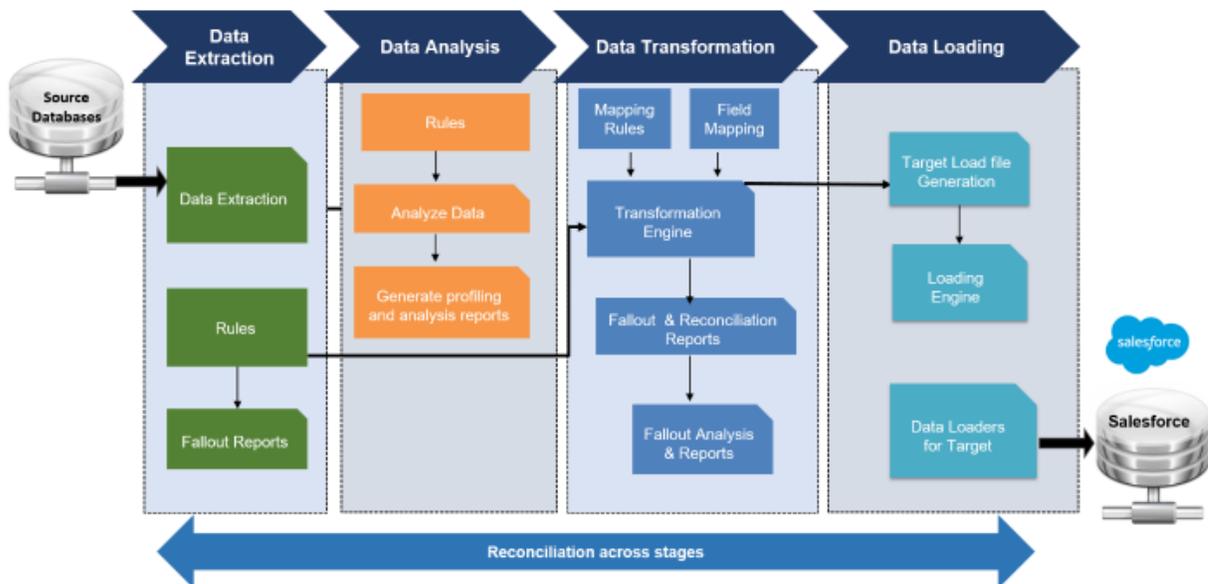
#### D. Design

The design process will happen for each planned sprint. Tech Mahindra will work with the State to conduct detailed design workshops aimed at validating the detailed design requirements. After the detailed design has been validated, Tech Mahindra’s team will create the functional specifications. Once approved, Tech Mahindra will develop the technical specifications to be used in the development phase of the project.

#### E. Conversion (If Applicable)

Figure 2 presents a diagram of the proposed process for data migration and conversion.

**Figure 2: Proposed Data Migration and Conversion Process**



Tech Mahindra explained that data migration and conversion will happen for each planned sprint.

#### **F. Implementation Planning**

The State requires that the DLL project's implementation planning activities and deliverables adhere to the State's CRM platform governance model, as outlined in the Vermont CRM Participating Agreement. This includes executing implementation planning activities at an enterprise level. Tech Mahindra stated that it fully complies with the State's CRM platform governance model requirements; however, BerryDunn recommends that discussions about CRM platform governance process, policies, and roles and responsibilities occur before contract execution to help ensure the project plan and schedule account for the required activities.

#### **G. Implementation**

Tech Mahindra will make sure its development and testing teams are available as a stand-by for any immediate assistance during implementation. A roll-back plan will be available as part of contingency planning. After successful deployment to production, Tech Mahindra developers will carry-out the post-deployment validation and the results will be communicated to the intended stakeholders.

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

The ADS EPMO has assigned both a project manager and a portfolio manager. Both have the skills and experience to successfully meet the DLL's project management needs.

The project manager is currently planned to support the project for approximately 50% of the time. BerryDunn recommends that the EPMO consider increasing the project manager's participation and oversight on the project to help ensure the vendor is satisfying the project management requirements and fulfilling project management responsibilities, as outlined in the contract.

## 8 Cost-Benefit Analysis

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

BerryDunn evaluated the costs provided by the State. Costs were included in Tech Mahindra's BAFO, the project IT ABC Form, and email communications with the ADS portfolio manager and the ADS project manager. BerryDunn verified the costs provided by the State in its own lifecycle cost sheet, provided in Attachment 1 – Lifecycle Cost-Benefit Analysis.

The benefits of the new system were discussed during interviews with the State and incorporated in this report.

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

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

- All project deliverables will be submitted and approved in 2021.
- The State will incur costs to maintain the current system until the end of 2021.
- There is a five-year lifecycle, with implementation activities beginning in January 2021.

**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 lifecycle.

The DLL is using State funds to pay for both acquisition and operational costs.

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

### *Tangible Costs*

- **Implementation Services** – The largest single cost of moving to a new system is the cost of \$1,480,000 for implementation services, which includes configuration/development/implementation, data migration, project management, quality management, and training.
- **Software/Licensing** – Salesforce licenses and AppExchange subscription fees total \$185,353 annually.

- **ADS Project Oversight, Project Management, Security, and EA** – These costs only occur for one year, for a total of \$284,064.
- **Other Contracted Professional Services** – The State has projected a cost of \$300,000 for contracted Salesforce subject matter experts to support the implementation.

### *Tangible Benefits*

Based on BerryDunn’s analysis, tangible benefits are speculative. The DLL confirmed there is no plan for staff reduction. The DLL staff that will be relieved of manual or work-around processes will be allowed to focus on other responsibilities for supporting licensing and enforcement operations; therefore, there will be no overall operational staff-cost savings to the DLL.

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

The new licensing and enforcement system might result in several intangible benefits, including:

- **Improved Customer Service** – A customer-facing portal will ease the burden of applying for and receiving licenses and permits. Customers will be able to apply for licenses on-line, thus eliminating the need to download, print, and mail the applications. Payments can be accepted on-line, eliminating the need to send a check with the application. Customers will be able to have visibility into the status of their application, in turn reducing customer inquiries to the DLL.
- **Increased Operational Efficiencies** – A new a licensing and enforcement system will increase operational efficiencies and reduce the dependency on staff to enter data multiple times for the same customer, respond to customer inquiries (especially during license renewal periods), and fix data entry errors.
- **Improved Employee Morale** – One contributing factor to negative or low employee morale is the lack of systems or tools for employees to do their job well. The DLL emphasized that implementing a new and improved system will increase employee morale, which may lead to a higher level of employee retention, increased productivity, improved team cohesiveness, and decreased absenteeism.
- **Reduced Risk** – The current systems used by the DLL are close to 30 years old and present a risk of system failure. Due to the obsolete underlying technologies, systems are difficult to maintain and impossible to upgrade. A licensing and enforcement system will help ensure the State has a stable and sustainable system for a key revenue generating department.

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

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

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

The State used cost information collected through the RFI process to complete the proposed implementation and annual costs in the IT ABC Form approved in June 2019. Through this Independent Review process, more accurate costs were identified. BerryDunn assumes that the DLL and ADS will update the IT ABC Form and reroute for approval prior to project commencement.

## 9 Analysis of Alternatives

1. Provide a brief analysis of alternative solutions that were deemed financially unfeasible.
2. Provide a brief analysis of alternative technical solutions that were deemed unsustainable.
3. Provide a brief analysis of alternative technical solutions where the costs for operations and maintenance were unfeasible.

In 2018, the State issued an RFI to understand options and cost estimates for replacing its current licensing and enforcement systems. The State received and reviewed more than 14 responses, and it used information provided by vendors to develop the RFP for a new licensing and enforcement system using the Salesforce platform.

Subsequently, through the RFP process, the State evaluated four proposals. A team of business, financial, and technology representatives evaluated and scored various aspects of the vendors' proposals, including Vendor Proposal/Solution (30%), Vendor Profile (20%), Professional Implementation Services (10%), Maintenance and Support Services (15%), Pricing (15%), Vendor Demo (5%), and Acceptance of State Terms and Conditions (5%).

Once the initial evaluations were complete, the State requested a BAFO from two vendors, Tech Mahindra and Speridian. Table 9.1 reflects a summary of the proposal sections evaluated, the vendors' weighted scores, and totals for the two highest scored licensing and enforcement proposals evaluated.

**Table 9.1: Summary of Proposal Scores**

Proposal Section	Speridian's Weighted Scores	Tech Mahindra's Weighted Scores
Vendor Profile	57.14	<b>71.43</b>
Vendor Proposal/Solution	102.86	<b>107.14</b>
Professional Implementation Services	37.14	<b>38.57</b>
Maintenance and Support Services	49.29	<b>51.43</b>
Pricing	<b>45.00</b>	42.00
Vendor Demonstration	16.00	<b>18.00</b>
Acceptance of State Terms and Conditions	<b>19.00</b>	18.00
<b>Total</b>	326.43	<b>346.57</b>

The State's proposal evaluation and scoring process factors all pricing (e.g., one-time implementation plus five year costs) rather than acquisition and operations and maintenance costs separately. The State's evaluation team did not deem Speridian's proposed solution

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as unsustainable or associated costs as unfeasible, but it identified that Tech Mahindra's proposed solution is sustainable and meets the State's functional and non-functional requirements for costs that are feasible.

BerryDunn believes that the competitive bid and proposal evaluation process was a sound approach to understanding the State's options for implementing a new licensing and enforcement system for the DLL.

## 10 Impact Analysis on Net Operating Costs

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

**Table 10.1: Lifecycle Costs by Calendar Year**

Impact on Operating Costs	2021	2022	2023	2024	2025	Five-Year Totals
<b>Professional Services (Non-Software Costs)</b>						
Current Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$0.00</b>
Projected Costs	\$1,803,500.00	\$390,000.00	\$360,000.00	\$330,000.00	\$330,000.00	<b>\$3,213,500.00</b>
<b>Software Acquisition, Maintenance, Support, and Licenses Costs</b>						
Current Costs	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00	<b>\$25,000.00</b>
Projected Costs	\$185,353.00	\$185,353.00	\$187,353.00	\$187,353.00	\$189,553.00	<b>\$934,965.00</b>
<b>Other Costs (State Labor)</b>						
Current Costs	\$87,360.00	\$87,360.00	\$87,360.00	\$87,360.00	\$87,360.00	<b>\$436,800.00</b>
Projected Costs	\$284,064.00	\$43,680.00	\$43,680.00	\$43,680.00	\$43,680.00	<b>\$458,784.00</b>
<b>Baseline Annual Current Costs</b>	\$92,360.00	\$92,360.00	\$92,360.00	\$92,360.00	\$92,360.00	<b>\$461,800.00</b>
<b>Baseline Annual Projected Costs</b>	\$2,272,917.00	\$619,033.00	\$591,033.00	\$561,033.00	\$563,233.00	<b>\$4,607,249.00</b>
<b>Cumulative Current Costs</b>	\$92,360.00	\$184,720.00	\$277,080.00	\$369,440.00	\$461,800.00	<b>\$461,800.00</b>
<b>Cumulative Projected Costs</b>	\$2,272,917.00	\$2,891,950.00	\$3,482,983.00	\$4,044,016.00	\$4,607,249.00	<b>\$4,607,249.00</b>
<b>Net Impact on Professional Services</b>	<b>(\$1,803,500.00)</b>	<b>(\$390,000.00)</b>	<b>(\$360,000.00)</b>	<b>(\$330,000.00)</b>	<b>(\$330,000.00)</b>	<b>(\$3,213,500.00)</b>
<b>Net Impact on Software Acquisition, Maintenance, Support, and Licenses Costs</b>	<b>(\$377,057.00)</b>	<b>(\$136,673.00)</b>	<b>(\$138,673.00)</b>	<b>(\$138,673.00)</b>	<b>(\$140,873.00)</b>	<b>(\$931,949.00)</b>
<b>Net Impact on Operating Costs</b>	<b>(\$2,180,557.00)</b>	<b>(\$526,673.00)</b>	<b>(\$498,673.00)</b>	<b>(\$468,673.00)</b>	<b>(\$470,873.00)</b>	<b>(\$4,145,449.00)</b>

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

BerryDunn used the following costs and calculations in performing the impact analysis on net operating costs:

- The projected 2021 costs for Software Acquisition, Maintenance, Support, and Licenses Costs include:
    - New one-time cost for Salesforce license fee: \$165,353
    - New subscription fee for Salesforce's AppExchange Barcode and Bulk Mail products: \$20,000
  - The projected 2021 costs for Professional Services (Non-Software) include:
    - Vendor implementation services: \$1,480,000
    - Other contracted professional services: \$300,000
    - Independent Review services: \$23,500
  - The projected 2021 costs for Other Costs (State Labor) include:
    - ADS EPMO project management and project oversight: \$192,000
    - ADS EA: \$75,264
    - ADS Security: \$16,800
  - The projected costs for Other Costs (State Labor) 2022 through 2025 include:
    - ADS Salesforce delegate administrator: \$43,680 (0.25% of a full-time employee [FTE] – 540 hours x \$84)
  - The current cost for Other Costs (State Labor) includes:
    - ADS IT developer: \$87,360 (0.5% of an FTE – 1,040 hours x \$84)
2. Explain any net operating increases that will be covered by federal funding. Will this funding cover the entire lifecycle? If not, please provide the breakouts by year.

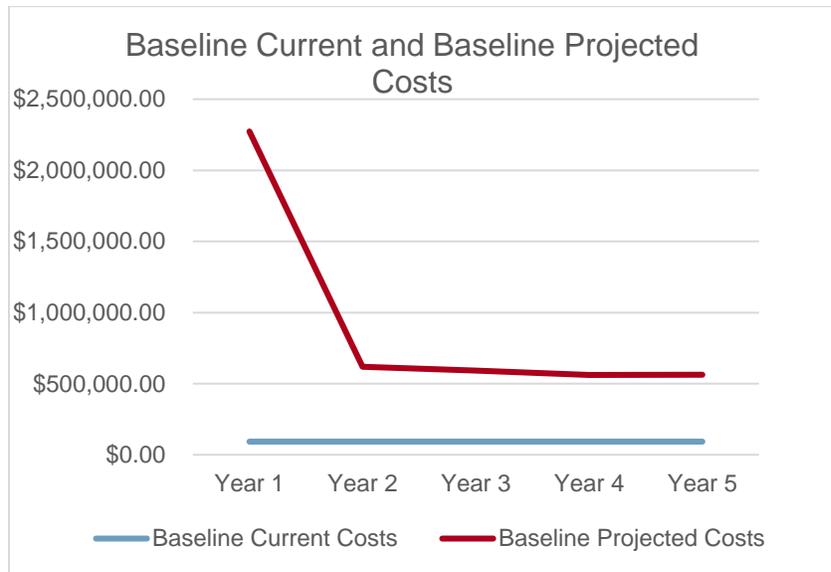
The State will be paying all operating costs with State funds.

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

This IT activity does not have a break-even point due to the increased ongoing operating costs associated with a new system. The State will expend most one-time fees on vendor professional services, which will result in a cost decrease at Year 2. However, the costs do not break even with the annual rise in vendor maintenance fees. See Figure 3 on the following page.



Figure 3: Baseline Current and Baseline Projected Costs



## 11 Security Assessment

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

The licensing and enforcement system will use the Salesforce security controls and will be configured and maintained by Tech Mahindra's development team.

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

The State's RFP requires the following data types be securely stored, accessed, and transmitted:

- Personally Identifiable Information (PII)
- Payment Card Information
- Publicly available information

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

Tech Mahindra has a Security Incident Management policy and procedures, which covers incident identification, reporting, response, and tracking until the incident is resolved. The process is managed through an online incident management portal accessible to all associates. Security incidents are classified as Minor, Medium, or Major. An Incident Response Team, with the required domain competency, takes immediate action by performing a root cause analysis and implementing preventive actions.

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

Tech Mahindra has Information Security Risk Management Guidelines and a Cyber Security Management Framework. Information Security Risk management at Tech Mahindra is aligned with ISO 31000 and ISO 27005 guidelines. Tech Mahindra has documented and implemented Information security risk assessment and management methodology that is designed based on the generally accepted methods within the industry. The risk assessment method adopts the information asset based approach to evaluate an impact of a threat on the information asset. The objective of Tech Mahindra enterprise Risk management framework is to define various risk universes, how business risk will be identified and various stakeholders. It defines key role and responsibility via risk management committee, chief risk officer and owner. It also provides Responsible, Accountable, Consulted, and Informed (RACI) matrix. This framework serves as a guideline to overall enterprise risk management approach.

5. What encryption controls/technologies does the system use to protect data at rest and in transit?

The system will be implemented using the Salesforce cloud-based platform and the database security settings, based on the State's requirements, will be enabled for data at rest.

For data in transit, Tech Mahindra will be using Mulesoft and Salesforce's APIs for data.

6. What format does the vendor use for continuous vulnerability management, what process is used for remediation, and how do they report vulnerabilities to customers? How does the vendor determine their compliance model and how is their compliance assessed?

The CISO is responsible for information security in Tech Mahindra, based on direction and oversight of the Chief Operating Officer (COO) and the Security Management Forum. A Steering Committee spearheads all security initiatives. Tech Mahindra has an Information Security Group (ISG) that facilitates the implementation of information security across the organization based on security policies and procedures.

## 12 Risk Assessment and Risk Register

*This section describes the process for development of a Risk Register; including the following activities:*

- A. *Ask the Independent Review participants to provide a list of the risks that they have identified and their strategies for addressing those risks.*
- B. *Independently validate the risk information provided by 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.)*
  - **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 Attachment 2 – Risk Register.

## 13 Attachment 1 – Lifecycle Cost-Benefit Analysis

Table 13.1, on the following page, reflects a five-year lifecycle cost analysis for Tech Mahindra's solution.

**Table 13.1: Lifecycle Analysis**

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
	2021	2021	2022	2023	2024	2025	Total
Implementation	\$1,240,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$1,240,000.00</b>
Software/Licenses	\$185,353.00	\$5,000.00	\$185,353.00	\$187,353.00	\$187,353.00	\$189,553.00	<b>\$939,965.00</b>
<b>Other Professional Services</b>							
Project Management	\$140,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$140,000.00</b>
Training	\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$50,000.00</b>
Quality Management	\$50,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$50,000.00</b>
Maintenance	\$0.00	\$0.00	\$390,000.00	\$360,000.00	\$330,000.00	\$330,000.00	<b>\$1,410,000.00</b>
<b>State Labor Costs</b>							
Other Contracted Professional Services	\$300,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$300,000.00</b>
ADS Project Management	\$192,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$192,000.00</b>
ADS Security	\$16,800.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$16,800.00</b>
ADS EA	\$75,264.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	<b>\$75,264.00</b>
Other State Labor	\$0.00	\$87,360.00	\$43,680.00	\$43,680.00	\$43,680.00	\$43,680.00	<b>\$278,880.00</b>
<b>Totals</b>							

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
	2021	2021	2022	2023	2024	2025	Total
Initial Implementation Cost	\$2,249,417.00						\$2,249,417.00
BerryDunn Independent Review	\$23,500.00						\$23,500.00
<b>Total Implementation</b>	<b>\$2,272,917.00</b>						<b>\$2,272,917.00</b>
<b>Total Lifecycle Operating Costs</b>		\$92,360.00	\$619,033.00	\$591,033.00	\$561,033.00	\$563,233.00	\$2,426,692.00
<b>Total Lifecycle Costs to Be Paid With Federal Funds</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
<b>Total Lifecycle Costs to Be Paid With State Funds</b>	<b>\$2,272,917.00</b>	<b>\$92,360.00</b>	<b>\$619,033.00</b>	<b>\$591,033.00</b>	<b>\$561,033.00</b>	<b>\$563,233.00</b>	<b>\$4,699,609.00</b>

## 14 Attachment 2 – Risk Register

Data Element	Description
<b>Risk #</b>	Sequential number assigned to each risk to be used when referring to the risk.
<b>Risk Probability, Impact, Overall Rating</b>	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.
<b>Source of Risk</b>	Source of the risk, which might be the Project, Proposed Solution, Vendor, or Other.
<b>Risk Description</b>	Brief narrative description of the identified risk.
<b>State's Planned Risk Strategy</b>	Strategy the State plans to take to address the risk. Assigned values are: Avoid, Mitigate, Transfer, or Accept.
<b>State's Planned Risk Response</b>	Risk response the State plans to adopt based on discussions between State staff and BerryDunn reviewers.
<b>Timing of Risk Response</b>	Planned timing for carrying out the risk response, which might be Prior to Contract Execution or Subsequent to Contract Execution.
<b>Reviewer's Assessment of State's Planned Response</b>	Indication of whether BerryDunn reviewers feel the planned response is adequate and appropriate, and recommendations if not.

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
1	Medium	High	High
<b>Source of Risk:</b> Vendor research conducted by BerryDunn			
<p><b>Risk Description: Tech Mahindra's quality of services, and the licensing and enforcement system it delivers, might not meet the State's expectations and business needs.</b></p> <p>In April 2016, the State of Nevada Department of Motor Vehicles (DMV) executed a contract with Tech Mahindra to implement a modernized licensing and registration system. According to the State of Nevada's 2017 audit report for its DMV System Modernization Project<sup>2</sup>, the following issues were identified:</p>			

<sup>2</sup> <https://budget.nv.gov/uploadedFiles/budgetnvgov/content/1Audits/About/AuditRpts/C18-01%20DMV%20Audit.pdf>



Risk #: 1	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High
<ul style="list-style-type: none"> <li>• Tech Mahindra did not have proven experience implementing DMV technologies for other states.</li> <li>• Tech Mahindra did not provide project team members as proposed in its RFP response.</li> <li>• Tech Mahindra did not provide project team members proficient in English.</li> <li>• Tech Mahindra did not follow contract requirements related to effective project management.</li> <li>• The State of Nevada DMV team had to edit project documentation and meeting minutes provided by Tech Mahindra for grammar and spelling.<sup>3</sup></li> </ul>			
<p>In January 2018, the State of Nevada DMV ended its contract due to Tech Mahindra's inability to satisfy contractual obligations.</p>			
<p>While this is only one example of a failed system implementation, BerryDunn believes there is risk to the State by entering into a contract with a vendor that has extremely limited experience implementing liquor and/or lottery licensing and enforcements systems.</p>			
<p><b>State's Planned Risk Strategy:</b> Accept/Mitigate</p>			
<p><b>State's Planned Risk Response:</b> The DLL accepts this risk. As part of the procurement process, the project team completed thorough reference checks on Tech Mahindra, and of those reference checks the clients were satisfied with the services and solutions provided by Tech Mahindra. The DLL will take action to further mitigate and protect the State's best interest by the use of a performance bond, retainage on milestone payments, and the use of deliverable expectation documents (DEDs) and deliverable acceptance forms (DAFs) as a way to ensure the State's acceptance criteria is clearly established and the vendor complies.</p>			
<p><b>Timing of Risk Response:</b> During Contract Drafting and Negotiations</p>			
<p><b>Reviewer's Assessment of State's Planned Response:</b> The State of New Hampshire's Department of Motor Vehicles (NH DMV) contracted Tech Mahindra to modernize its licensing system. The State should consider contacting the NH DMV to discuss lessons learned from the VISION Modernization Project before entering into contract negotiations. BerryDunn understands that the NH DMV was interviewed through the reference check process, but gaining a better understanding of the challenges and what worked well in NH could help prepare the State for drafting the DLL contract and conducting contract negotiations with Tech Mahindra.</p> <p>BerryDunn recommends that the DLL and ADS acknowledge that Tech Mahindra has extremely limited experience implementing liquor and/or lottery licensing and enforcement systems, and mutually agree on moving forward with appropriate mitigation plans in place.</p>			

<sup>3</sup> <https://statescoop.com/after-bait-and-switch-nevada-dmv-cancels-78-million-it-contract/>

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
2	Medium	High	High
<b>Source of Risk:</b> Interviews with the State			
<b>Risk Description: The lack of a dedicated State contract and/or vendor manager might result in noncompliance with Tech Mahindra’s contractual obligations.</b>			
The State has not identified a project team member who is ultimately responsible for leading contract negotiations, and then monitoring Tech Mahindra’s performance to help ensure compliance with requirements, protocols, and procedures established in the contract.			
<b>State’s Planned Risk Strategy:</b> Mitigate			
<b>State’s Planned Risk Response:</b> The ADS Project Manager will take the lead in coordinating contract negotiation efforts and pulling in the subject matter experts where it is applicable. The team will work together to create a specific roles and responsibilities document (RACI Matrix) specific to contract management. This document will outline roles and responsibilities around the project manager, ADS resources, and the DLL team in regard to compliance, requirements, protocols, and procedures. The ADS Project Manager will manage vendor obligations throughout the life of the implementation, with the help of the ADS Procurement Team.			
<b>Timing of Risk Response:</b> Prior to Contract Negotiations			
<b>Reviewer’s Assessment of State’s Planned Response:</b> The State’s planned risk response and timing are acceptable. BerryDunn recommends that the DLL identify a resource to support the ADS Project Manager in leading discussions during contract negotiations, monitoring the vendor’s performance through the life of the contract (including post-implementation services), and enforcing vendor corrective action plans (if necessary).			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
3	Medium	High	High
<b>Source of Risk:</b> Preferred vendor proposal, interviews with the State			
<b>Risk Description: The project might experience delays in the implementation timeline due to limited availability of DLL project team members.</b>			
Tech Mahindra is proposing a hybrid waterfall/agile approach to the implementation, which will require the DLL project team members to participate in requirements workshops over 12 to 13 weeks, seven design/development sprints over 21 weeks, and UAT over 3 weeks. Because Tech Mahindra’s proposed project team does not have experience with implementing liquor and lottery licensing and enforcement systems, this will require significant commitment from the DLL staff that are solely dedicated to supporting day-to-day licensing and enforcement operations. If the DLL cannot provide the necessary State resources for key activities (e.g., design sessions, UAT), the project schedule could be negatively impacted and delay the overall implementation.			
<b>State’s Planned Risk Strategy:</b> Mitigate			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
3	Medium	High	High
<p><b>State's Planned Risk Response:</b> The DLL project leads are working to delegate operational job responsibilities to other staff members within the department to help ensure they are able to dedicate the appropriate time needed for this implementation. Through contract negotiations, the project team will also work with Tech Mahindra to make adjustments to the proposed schedule to appropriately fit the needs of the team throughout the implementation.</p> <p>The schedule will be closely managed through implementation to ensure the above mitigation strategy is still effective and make adjustments as necessary. A formal change request process, to be outlined in the contract, and will be followed if schedule adjustments are needed for implementation tasks after contract execution.</p>			
<p><b>Timing of Risk Response:</b> Through contract negotiations, prior to contract execution</p>			
<p><b>Reviewer's Assessment of State's Planned Response:</b> The State's responses are acceptable.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
4	High	High	High
<p><b>Source of Risk:</b> Preferred vendor proposal</p>			
<p><b>Risk Description: The implementation schedule might be delayed, or the licensing and enforcement system will not satisfy the State's requirements, due to inadequate UAT.</b></p> <p>Tech Mahindra's tentative project plan allocates 20 days to complete all UAT activities. Given the scope of functional and non-functional requirements that will need to be fully tested by the State before go-live, it is likely that the estimated time for UAT is not sufficient.</p> <p>Not planning enough time to complete all necessary UAT activities could result in the following:</p> <ul style="list-style-type: none"> <li>• Incomplete test plan(s), test scripts/scenarios, and test results</li> <li>• Unplanned time for the vendor to troubleshoot and resolve reported defects</li> <li>• Delayed deployment of the new system</li> <li>• Unanticipated system defects post go-live</li> </ul>			
<p><b>State's Planned Risk Strategy:</b> Accept</p>			
<p><b>State's Planned Risk Response:</b> The DLL resources have experience with and understand the level of effort needed for UAT to be successful. The DLL has gone through two major implementations in the last five years and feel as though it is prepared to devote time to this and the allotted 20 days in the schedule is sufficient.</p>			
<p><b>Timing of Risk Response:</b> Through contract negotiations, prior to contract execution</p>			
<p><b>Reviewer's Assessment of State's Planned Response:</b> BerryDunn believes the State can mitigate this risk during contract negotiations by working with Tech Mahindra on developing a project plan, with work breakdown structures, to help ensure all UAT activities have realistic and achievable durations.</p>			

Risk #: 5	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High
<b>Source of Risk:</b> Preferred vendor proposal, interviews with the State			
<p><b>Risk Description: The proposed project plan and schedule might not allow sufficient time to complete all required activities for a successful implementation.</b></p> <p>Tech Mahindra proposed a 10-month project timeline. Due to the scope of the project and the fact that Tech Mahindra has never implemented a system within 10 months for another state government agency, the proposed implementation schedule might not provide sufficient time to complete all necessary activities required for a successful implementation in a reasonable or achievable manner. Although the schedule is tentative, the State and Tech Mahindra do not have agreement on a project plan and schedule that includes all activities with achievable durations to help ensure a successful implementation.</p>			
<b>State's Planned Risk Strategy:</b> Accept			
<p><b>State's Planned Risk Response:</b> The DLL project team feels that the 10-month implementation plan is achievable and accepts this risk. The DLL would also like to note that there is not specific deadline for implementation on behalf of the department's needs and if there are approved change requests to the schedule throughout implementation, the largest impact to the department will be how the new system is rolled out, while will be more of a phased approach, rather than all at once. In addition, there have been several Salesforce implementations across the enterprise of projects that are similar in size and complexity over the last year that support a 10-month implementation timeline is feasible.</p> <p>With the above in consideration, the project team will do its diligence during contract negotiations to make sure the final implementation schedule is achievable for both parties and a successful implementation.</p>			
<b>Timing of Risk Response:</b> Through contract negotiations, prior to contract execution			
<p><b>Reviewer's Assessment of State's Planned Response:</b> Because Tech Mahindra has limited experience with liquor and/or lottery systems within state governments, there are two options the State might consider for managing the implementation timeline:</p> <ol style="list-style-type: none"> <li>1. Negotiate a 12 – 14-month timeline – Because the DLL does not have a deadline for implementing the licensing and enforcement system, the State might want to negotiate a longer timeline to allow more time for completing project activities.</li> <li>2. Keep the contractual expectation for implementation within 10 months – If the State is confident that Tech Mahindra can implement a fully functional system within the proposed timeline, the State project team might want to consider setting expectations with project stakeholders that the implementation timeline could be 10 – 14 months. As the project progresses and milestones are achieved, the actual timeline will become more clear and shared with project stakeholders.</li> </ol>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
6	Medium	High	High
<b>Source of Risk:</b> Preferred vendor proposal			
<b>Risk Description: The project deliverables provided by Tech Mahindra might not align with the State's expectations.</b>			
Tech Mahindra outlined more than 20 deliverables in its proposal, but it did not fully articulate the purpose and components for all deliverables. Misaligned expectations for project deliverables could lead to multiple review cycles (delaying the project schedule) or deliverables that do not add value to the State.			
<b>State's Planned Risk Strategy:</b> Mitigate			
<b>State's Planned Risk Response:</b> The project team will utilize DEDs and DAFs through implementation to ensure the acceptance criteria for each deliverable outlined in the contract is clear and agreed upon before deliverable submission. The DED and DAF are standard Project Management forms and process that facilitate the acceptance of project deliverables, these forms and process will also be outlined in the executed contract.			
<b>Timing of Risk Response:</b> During contract negotiations			
<b>Reviewer's Assessment of State's Planned Response:</b> The State's responses are acceptable but incomplete. BerryDunn emphasizes the importance of obtaining a detailed description of all deliverables and key artifacts described in Tech Mahindra's proposal during contract negotiations. The State should consider using the table in Section 4.1.1 of Attachment A – Specifications of Work to Be Performed that was included in the DLL Licensing and Enforcement System RFP to document the results of deliverable discussions with Tech Mahindra.			
If it has not been done so already, the State can request Tech Mahindra to provide example deliverables to gain a better understanding of deliverable quality and completeness before creating the DLL project DEDs.			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
7	Low	High	Medium
<b>Source of Risk:</b> Preferred vendor proposal, preferred vendor interview			
<b>Risk Description: There is a risk of project schedule delays due to the lack of a payment schedule associated with contract deliverables, milestones, and costs.</b>			
During this Independent Review, Tech Mahindra provided a document outlining the proposed deliverables for each phase of the project. However, BerryDunn noted that the project management deliverables and other technical services deliverables (described throughout Exhibit C of Tech Mahindra's response) were not listed in the latest document provided to the BerryDunn team.			
At the time of this Independent Review, there is no mutual agreement regarding project deliverables and milestones; how project deliverables and milestones are associated to vendor payments; when the			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
7	Low	High	Medium
<p>vendor is proposing to submit each deliverable; or how long the State will have to complete its review and approval.</p>			
<p><b>State’s Planned Risk Strategy:</b> Mitigate</p>			
<p><b>State’s Planned Risk Response:</b> All project deliverables will be defined through contract negotiations and documented in the final, executable version of the contract.</p>			
<p><b>Timing of Risk Response:</b> During contract negotiations</p>			
<p><b>Reviewer’s Assessment of State’s Planned Response:</b> The State’s responses are acceptable. The State should consider extending the time during which delays can occur at no additional cost to the State. The draft contract language in Section 5.3 of Attachment A – Specifications of Work states, “Such readjustment, rescheduling, or modification of the project shall be at no additional cost to the State if the delays are less than or equal to 30 days”. BerryDunn recommends changing the time from 30 days to 60, 90, or 120 days to protect the State from additional costs.</p> <p>It is important to note that this risk is identified for most of the State’s IT projects reviewed by BerryDunn. The State should consider modifying the pricing template provided in RFPs so that bidders can propose costs associated with contract deliverables and/or milestones rather than waiting until contract negotiations to develop a payment schedule.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
8	Low	High	Medium
<p><b>Source of Risk:</b> Interviews with the State</p>			
<p><b>Risk Description:</b> The lack of an organizational change management (OCM) plan as part of this project could have negative impact on staff and adoption of the DLL licensing and enforcement system and realizing the business benefits of the modernized system.</p> <p>OCM requires careful planning, abundant communication, and continuous support for the people directly impacted by change. Change management drives the successful adoption and usage of new systems, allowing employees to understand and commit to the change while working more effectively during the transition from the current state to the desired future state.</p> <p>While the DLL project leadership team believes that its organization is ready and eager to implement a new solution that will streamline and automate licensing and enforcement business processes, it is possible that some staff or DLL customers will be resistant to change. Currently, the State’s project team does not have a plan to ensure project communications are strategically delivered so that stakeholders are aware of the planned changes, the desired results and why the changes are needed, how the changes will impact them, and when to expect changes to occur—which are all key components of OCM and facilitating adoption of change.</p>			
<p><b>State’s Planned Risk Strategy:</b> Mitigate</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
8	Low	High	Medium
<p><b>State’s Planned Risk Response:</b> The OCM plan and responsibilities will be defined and carried out by the DLL licensing staff. The licensing office will be communicating to external stakeholders and will establish a plan for when to communicate and in what form. The internal DLL team is small and the resistance to change in the internal process is expected to be very minor, if at all.</p>			
<p><b>Timing of Risk Response:</b> Change Planning discussions are currently taking place and will continue to evolve as more concrete timeline information becomes available</p>			
<p><b>Reviewer’s Assessment of State’s Planned Response:</b> At this time, the State’s planned risk response does not include key OCM activities, such as assessing the organization’s readiness for change and implementing processes for collecting feedback from stakeholders. The State might benefit from taking a more systematic OCM approach to help ensure all user groups fully adopt the capabilities available in the new system, maximizing on its IT investment.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
9	High	High	High
<p><b>Source of Risk:</b> Project documentation</p>			
<p><b>Risk Description: The State’s CRM governance framework is critical for the development and implementation of the DLL licensing and enforcement project and is new to the State of Vermont.</b></p> <p>The State’s CRM framework is a requirement for all State agencies implementing cloud-based Salesforce platforms. The DLL licensing and enforcement’s implementation activities will be governed by the State’s CRM framework, which will require ADS, DLL, and the vendor’s development team to work closely together throughout the project lifecycle. According to the project’s IT ABC Form, the project is planning for an ADS security analyst (\$16,800) and an ADS EA (\$75,264) to be engaged in the DLL project.</p> <p>Based on BerryDunn’s assessment of the roles and responsibilities described in the State’s CRM Participation Agreement, there is risk that the level of effort planned for ADS resources might not be enough to support the DLL project.</p>			
<p><b>State’s Planned Risk Strategy:</b> Accept</p>			
<p><b>State’s Planned Risk Response:</b> The DLL project team is accepting this risk. The estimates gathered for this implementation were based on previous Salesforce implementations of projects of similar size and complexity. With the iterative project process, the team feels confident any resource adjustments needed based on estimates will be known very early on in the project and will follow the formal change request process to adjust those estimates and associated costs, if it is needed.</p>			
<p><b>Timing of Risk Response:</b> Not applicable</p>			
<p><b>Reviewer’s Assessment of State’s Planned Response:</b> The State’s responses are acceptable.</p>			

Risk #: 9	Risk Likelihood/Probability: High	Risk Impact: High	Overall Risk Rating: High
The State's CRM Participation Agreement states that the platform is early in its development, and the CRM onboarding model is expected to evolve over time. The DLL licensing and enforcement project might present the need for ADS to refine and advance its policies, procedures, and processes to fully accommodate the DLL project.			