pGc Paul Garstki Consulting

INDEPENDENT REVIEW

OF A PROPOSED

PROJECT

For the
STATE OF VERMONT
AGENCY OF DIGITAL SERVICES (ADS)
And
DEPARTMENT OF STATE'S ATTORNEYS AND SHERIFFS (SAS)

Submitted to the
State of Vermont, Office of the CIO
by:

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1 EXECUTIVE SUMMARY

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

The Department of State's Attorneys and Sheriffs (SAS) proposes to modernize and replace their existing Case Management System, which had reached End Of Life (EOL) status over a year ago and is now unsupported by the original vendor. Following a properly conducted procurement effort, SAS has selected Matrix Pointe Software of Cleveland, Ohio as vendor to implement and operate a new system.

The proposed system is a pure Software-as-a-Service (SaaS) application, securely hosted, and meeting the critical functional and non-functional requirements of the State. It would consist of the vendor's "MatrixProsecutor Suite," configured to meet the specific needs of SAS. Implementation would take about a year and would also include conversion of all data residing in the current system. The application appears to be well-architected. It would be highly secure, hosted in Amazon Web Services (AWS) GovCloud.

The proposed solution appears to be well-architected, consistent with State requirements and preferences, securely hosted, well planned and staffed, reasonably priced, with significant intangible benefits to the State and its citizens. Very importantly, it would replace an outdated, unsupported system which over time would become increasingly likely to have functional or security problems.

We found no serious problems with the proposed project.

1.1 COST SUMMARY

Table 1 - Cost Summary

IT Activity Lifecycle (years):	**5**
Total Lifecycle Costs:	**$2,038,315.95**
Total Implementation Costs:	**$704,409.00**
New Average Annual Operating Costs:	**$266,781.39**
Current Annual Operating Costs	**$212,476.00**
Difference Between Current and New Operating Costs:	**$54,305.39**
Funding Source(s) and Percentage Breakdown if Multiple Sources:	**Federal (ARPA): $1,220,409.00** **State: $817,906.95**

1.2 DISPOSITION OF INDEPENDENT REVIEW DELIVERABLES

Table 2 - Disposition of Independent Review Deliverables

Deliverable	Highlights from the Review *include explanations of any significant concerns*
Acquisition Cost Assessment	**Total Acquisition Cost is $704,409.00,** of which $260,000.00 is the implementation cost to primary vendor. There are no Software or Hardware acquisition costs (SaaS solution). Professional Services total $379,769.00. Compared to a recent (2018) implementation in [redacted], when accounting for population or user base, Vermont is paying about the same or a bit less.
Technology Architecture Review	The Architecture of the proposed solution is state-of-the art, securely hosted, and meets all State architectural preferences and requirements. There is a good alignment with the State's Enterprise Architecture Guiding Principles and with the ADS Strategic Goals 2022-2026. The Service Level Agreement has good targets, but we would prefer to see remedies in the event targets are missed. Integration with the Vermont Judiciary's CMS and the Department of Public Safety (DPS) Valcour data system is expected, and 3 more integrations are optional.
Implementation Plan Assessment	The Implementation Plan, as it exists at this time prior to contract execution, is well-paced, reasonably comprehensive, and clear. It takes into account the specific needs, size, and capabilities of the State. The attention to the importance of training reflects well on the vendor's experience with comparable projects. We concur with the State's decision to approach this as a year-long project that may be completed in 8 months if there are no unanticipated delays. There are some minor adjustments to the plan as it exists in the current contract draft which will be necessary before attaching it as the IMS to the contract as executed. The State is discussing those changes and the vendor is amenable. We assess the Implementation Plan as likely to succeed.
Cost Analysis and Model for Benefit Analysis	TANGIBLE ANNUAL COST INCREASE: $54,305.39 TANGIBLE IMPLEMENTATION COST: $704,409.00 The tangible increase in annual operating costs is relatively slight and very reasonable in light of the significant improvements offered by the proposed solution. The implementation costs are reasonable and include

	the costs due the vendor as well as project management and related costs on the State side. Intangible benefits are significant, and address improvements to victim advocacy, business processes, State's Attorneys work efficiencies, security, and most significantly, replacement of the existing, obsolete CMS. In our assessment, the benefits greatly outweigh the costs.
Impact Analysis on Net Operating Costs	Funding would be supported in part by Federal ARPA funding in the following proportions (entire lifecycle): • **Federal (ARPA) 59.87%** • **State 40.13%** There is no break-even point for this activity as a whole as currently projected, as the proposed annual cost is slightly more than the current annual cost and there is a significant implementation cost. Note, currently projected annual costs include subscriptions for 3 data interfaces which the State may option not to implement. If all 3 were not implemented, the total project M&O costs would be $59,563.53 less total over the 5 operational years. Similarly, not implementing those 3 interfaces would take $30,000.00 off the implementation cost.
Analysis of Alternatives	Aside from awarding a different bidder during the procurement process, the only existing technical alternative would be to continue use of the existing CMS. Doing so would be clearly unsustainable, as there is a reasonable expectation that the existing, unsupported, and un-updateable current system would fail in one of the ways described in the present Report. Such an event could result in a dangerous condition for the State and its citizens, if the information produced and used by State's Attorneys was interrupted or compromised.
Security Assessment	Taken as a whole, the proposed solution is highly secure, protecting citizens' privacy and rights, clearly recoverable, and compliant with all applicable standards and requirements. The vendor is obligated contractually to fulfill and align with all State security requirements and expectations.

1.3 IDENTIFIED HIGH IMPACT &/OR HIGH LIKELIHOOD OF OCCURRENCE RISKS

NOTE: Throughout the narrative text of this document, **Risks and Issues are identified by bold red text**, and an accompanying tag (**_RISK_ID# _0_**) provides the Risk or Issue ID to reference the risk, response, and reference in the Risk Register.

The following table lists the risks identified as having high impact and/or high likelihood (probability) of occurrence.

Please see the **Risk & Issues Register, in Section 10**, for details.

Table 3 - Identified High Impact & High Likelihood of Occurrence Risks

Risk Description	RATING LIKELY/ IMPACT	State's Planned Risk Response	Reviewer's Assessment of Planned Response
Negative experiences with the SAS's current CMS vendor, JustWare, could result in implementation apprehension from State's Attorneys Offices, leading to continued use of deprecated business processes after Go Live	21 3/7	Identify change management activities to implement during system implementation and address during design of training phase.	Concur. Likelihood is Minor
As the current CMS has been unsupported by Journal Technologies, including security patches and critical software bug patches, since 6/30/2021, there is a risk of functionality of the existing system degrading over time and causing operational issues and/or a security hole.	35 5/7	State has engaged third-party support which should allow the system to operate through implementation of the new system.	Concur

1.4 OTHER ISSUES

none

1.5 RECOMMENDATION

We recommend this project go forward as planned.

1.6 INDEPENDENT REVIEWER CERTIFICATION

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

DocuSigned by:
Paul Garstki
493B2479DEA04AE...

1/26/2024

Independent Reviewer Signature **Date**

1.7 REPORT ACCEPTANCE

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

DocuSigned by:
Trisha Watson
8BD741B0DB03C439...

1/29/2024

ADS Oversight Project Manager **Date**

DocuSigned by:
Denise Reilly-Hughes
6041A76735A7442...

1/31/2024

State of Vermont Chief Information Officer **Date**

2 SCOPE OF THIS INDEPENDENT REVIEW

2.1 IN-SCOPE

The scope of this document is fulfilling the requirements of Vermont Statute, Title 3, Chapter 056, §3303(d):

2.1.1 THE AGENCY SHALL OBTAIN INDEPENDENT EXPERT REVIEW OF ANY NEW INFORMATION TECHNOLOGY PROJECTS WITH A TOTAL COST OF $1,000,000.00 OR GREATER OR WHEN REQUIRED BY THE CHIEF INFORMATION OFFICER

2.1.2 THE INDEPENDENT REVIEW REPORT INCLUDES:

A. An acquisition cost assessment;
B. A technology architecture and standards review;
C. An implementation plan assessment;
D. A cost analysis and model for benefit analysis;
E. An analysis of alternatives;
F. An impact analysis on net operating costs for the Agency carrying out the activity; and
G. A security assessment.

2.2 OUT-OF-SCOPE

- A separate deliverable at additional cost as part of this Independent Review may be procurement negotiation advisory services at the State's request, but those services are not currently part of the deliverables in this report.

3 SOURCES OF INFORMATION

3.1 INDEPENDENT REVIEW PARTICIPANTS

Table 4 - Independent Review Participants

Name	Title	Topic
Trisha Watson	ADS Portfolio Manager	Project Oversight
Albert Coccagna III	SAS IT Director	Overview, Project Leadership, IT, Funding
Jennifer Bouffard	SAS Chittenden Office Administrator	Overview, General Operations, Administrative CMS Use
Annie Noonan	SAS Labor and Relations Director	Funding and Finance
Kevin Scheirer	BerryDunn Senior Business Development Specialist	Contract Development
Doug Rowe	BerryDunn Project Principal	Overview
Alec Leddy	BerryDunn Project Manager	Project Management

3.2 INDEPENDENT REVIEW DOCUMENTATION

The following documents were used in the process and preparation of this Independent Review

Table 5 - Independent Review Documents

Document	Source
SAS CMS EA Diagram from RFP.pdf	State
SAS CMS RFP - Final Draft.pdf	State
SAS_Case_Mgmt_Odyssey__IT_ABC Form_PARTIALLY EXECUTED 10.5.2021 (1).pdf	State
VT SAS Case Management System Project Charter (Draft).docx	State
VT SAS CMS - IT ABC Form IR Update.pdf	State
VT SAS CMS PSM Final.docx	State
VT SAS Stakeholder Register DRAFT.xlsx	State
Bidder evaluation forms from procurement team members	State
Matrix Pointe Software Bidder Response Form -SAS CMS and associated attachments	Matrix Pointe Software
VT SAS CMS Implementation Services Contract - Matrix - Redline 11.15.23 and associated attachments and appendices	State

4 PROJECT INFORMATION

4.1 HISTORICAL BACKGROUND

SAS currently uses Journal Technologies, Incorporated (JTI) JustWare Case Management System (CMS). JTI announced the end of support including software bug and security patches for JustWare effective June 30, 2021, creating a motivating **_RISK_ID# _R5_**. Consequently, SAS began consideration of a suitable replacement. SAS has a short-term agreement with another vendor for interim support, which does not provide patches or enhancements. We assess this to be the proper response to the situation. JTI encouraged the State to adopt their newly developed successor to JustWare.

JustWare was initially a satisfactory CMS. Over time, however, the platform had become obsolete in comparison to new offerings in the market, and insufficiently met the ongoing needs of SAS in several ways. SAS services 14 State's Attorneys offices (1 in each county) as well as the central office. JustWare is limited in the types of document storage it handles natively. For example, audio and video files are not accommodated, leading to a current practice of story audio and video files on local file servers (at least 37 TB total) in each office, along with other workarounds to accommodate other inadequacies. Additionally, JustWare does not have a direct integration with the Judiciary's Odyssey CMS.

With these facts in mind, SAS instituted a specification and procurement process compliant with State procedures as promulgated in Bulletin 3.5. Based on existing SAS business processes and identification of desired improvements, functional requirements and non-functional requirements (NFRs) were compiled, leading to the issuance of a Request for Proposals (RFP) on January 3, 2023. Seven compliant bids were received by a February 10 deadline.

Following an evaluation and scoring process, including inviting product demonstrations from the highest scoring bidders, the State selected Matrix Pointe Software of Cleveland, Ohio, to implement and operate a modern CMS replacing the existing system.

4.2 PROJECT GOAL

SAS expects to attain the following objectives:

- Provide State's Attorney's Offices with a system that can support uniform business processes while remining configurable to office-specific requirements, including:
    - Case management
    - Scheduling, docketing, and calendaring
    - File and document management
    - Contact management
    - Reporting analysis
    - Trial management
    - Appeals

  - Investigations
  - Evidence management
  - Diversion

- Alleviate the burden of manual workflows and paper-based processes on administrators, paralegals, and secretaries.

- Alleviate the strain of system filing and discovery processes on deputy state's attorneys via integration with Tyler Odyssey, the Judiciary's court case management system, and other systems as required (e.g., law enforcement).

- Ensure victim advocates are equipped with appropriate system functionality (e.g., workflows, alerts, messaging and notification features) to support the critical work of keeping victims appraised of relevant case events and updates.

- Ensure each State's Attorney's Office is equipped to collect and store all data for current and future State and federal reporting requirements.

4.3 PROJECT SCOPE

4.3.1 IN-SCOPE

The SAS envisions a comprehensive implementation of its CMS, including integration with the Vermont Judiciary's CMS, Tyler Odyssey, among others. The system must support case management functionality, provide training for all internal and external users, and include an informational website/portal.

4.3.2 OUT-OF-SCOPE

The Case Management System Replacement Project does not consider the CMS needs of other state agencies (e.g., the Attorney General's Office), nor does it provide explicit avenues for other agencies to contract with the selected CMS vendor. However, Vermont SAS is open to supporting other agencies in searches for CMS vendors should agencies request assistance.

4.3.3 MAJOR DELIVERABLES

Table 6 - Major Deliverables

Major Deliverables
Project Management Deliverables (see 7.3.1, below)
Completed in accordance with this Contract and applicable project management planning documentation;
All material functional and operational deficiencies resolved prior to deployment in the production environment;
Retirement of Justware and housing of data in the new CMS;
Implementation completed within budget;
Solution configured to meet all specified requirements and needs of the State;
Solution interfaced with all critical justice partners;
Solution meets and adheres to all requirements and timeframes set forth in service level terms set forth in the contract;
The Solution is fully documented, including but not limited to requirements specifications, architecture, design, configuration, operational environment and user manuals; and
Training is completed for State staff and stakeholders.

4.4 PROJECT PHASES, MILESTONES, AND SCHEDULE

Note: The table below contains start and end dates as currently listed in the draft contract. Each will shift appropriately starting from the actual date of contract execution.

Table 7 – Project Phases, Milestones, and Schedule

PHASE	Start Date	End Date
Initiation	1/15/2024	6/8/2024
Configuration Analysis and Design	12/31/2023	1/14/2024
Implementation	6/8/2024	7/14/2024
Testing	6/19/2024	9/7/2024
Training	12/16/2023	8/11/2024
Legacy Data Migration	12/16/2023	8/11/2024
Interface Development	9/8/2024	9/21/2024
Deployment	9/21/2024	10/31/2024
Post-Implementation Support/Warranty	1/15/2024	6/8/2024

5 ACQUISITION COST ASSESSMENT

Table 8 - Acquisition Costs

Acquisition Costs	Cost	Comments
Hardware Costs	**$0.00**	No hardware costs to State
Software Costs	**$0.00**	No software costs during implementation
Implementation Services	**$317,600.00**	**$260K to vendor** $57.6K hosting during data migration
State Personnel	**$7,040.00**	See attach. 3, Cost Spreadsheet
Professional Services (e.g., Project Management, Ind. Review, etc.)	**$379,769.00**	See attach. 3, Cost Spreadsheet
Total Acquisition Costs	**$704,409.00**	

5.1 COST VALIDATION:

Describe how you validated the Acquisition Costs.

Acquisition in this case refers to the process of implementing a new CMS for SAS and configuring it to meet the State's needs. The proposed solution is a SaaS application, and therefore carries ongoing annual costs not reflected in Acquisition Costs. Attachment 1, Cost Spreadsheet, details those ongoing costs.

- The total implementation cost due the vendor would be $260,000. That figure is consistent with the vendor's offer in the Bidder Response Form and in the draft contract payment provisions. The vendor would charge $10,000 for each interface implementation. Five interfaces are listed in the vendor's proposal. As the State considers only two of those interfaces to be critical (see 6.8, System Integration, below), some of those costs would be avoided if the State decides not to have one or more of the remaining interfaces implemented. We recommend that the contract reflect that possibility.

- $57,600 is allocated for hosting of the existing system until data migration is confirmed. This cost would actually incur after the proposed system Go Live point, i.e., in the first year of operation. We include it in acquisition costs because data migration is a component of

implementation. If not needed to complete data migration, the cost would be avoided.

- $7,040 is the estimate for ADS EPMO Oversight & Reporting.

- $379,769 for professional services includes an estimate from the third-party contractor for project management services and the actual cost of the present Review.

5.2 COST COMPARISON:

How do the above Acquisition Costs compare with others who have purchased similar solutions (i.e., is the State paying more, less or about the same)?

The Prosecuting Attorney's Office of [redacted] kindly provided us with costs from the implementation of a Matrix Pointe CMS system in 2018. The pricing of that system varied from the present project, in that hosting, licensing, migration of existing data, and travel were priced as separate items (instead of the all-inclusive price preferred by the State. The implementation alone was capped at $89,950; but when the other items are added, the total initial cost was approximately $330,000.

CMS systems vary somewhat from state to state and office to office depending on local law and organization. However, we can make some rough comparisons:

The [redacted] CMS has approximately 83 users in total. The SAS CMS would accommodate 170 users, approximately 2.05 times [redacted]'s. If we apply that multiplier to [redacted]s $330,000 cost, 2.05 X $330,000 = $676,500. The proposed project's implementation cost is $704,409, a difference of approximately 4%.

Alternatively, the 2023 population of Vermont is 647,156 approximately 2.57 times larger than the 252,229 population of [redacted]. 2.57 X $330,000 = $848,100, approximately 20% more the State's cost.

By these rough measures, we can estimate that the State would be paying about the same or a bit less than the comparison implementation.

5.3 COST ASSESSMENT:

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

We have no concerns or issues with the costs.

Additional Comments on Acquisition Costs:

None

6 TECHNOLOGY ARCHITECTURE AND STANDARDS REVIEW

Architecture Overview

The system as proposed employs a conventional cloud-based service architecture hosted in a highly secure cloud environment (Amazon Web Services (AWS)). All data is kept within the United States. All instances are logically segregated based on functional purpose and application tier (i.e.; web server, automation server, database server, etc.). The vendor states that the Matrix application suite supports the Criminal Justice Information Services (CJIS) Security Policy as a minimum standard. Data within the hosted network environment is encrypted in-flight and at-rest using FIPS 140-2 and FIPS 197 compliant algorithms.

The solution is pure Software as a Service (SaaS). The only hardware required of the State is hardware needed to access the solution via browser: A Microsoft Windows-based workstation (laptop, desktop computer or convertible tablet) running at least the Windows 10 operating system, with 8MB of RAM, and a modern browser. Workstations meeting these requirements are already in place at SAS offices in the form of laptops and docking stations. All offices have high speed Internet connections meeting the Matrix recommendation of 20Mbps.

The data flow of the solution avoids unnecessary traversal of the State's network to minimize the traffic impact.

An Android or iOS app is available to access a limited feature set from a mobile device. The app also facilitates uploads of photos and videos from the mobile device.

The database for the application is SQL Server, which is very familiar to the State.

High Level Diagrams

The diagram on the following page was provided by the vendor as part of their bid response. It shows a high-level logical diagram of the proposed solution as described above.

The vendor also provided an "Application Architecture (Data Flow) Diagram."

The State's RFP included as an attachment a logical architecture diagram which clearly envisioned a Salesforce-based application (which the proposed solution is not).

The latter two diagrams are not included below, as we assess them to add very little useful information to this report.

6.1 STATE'S ENTERPRISE ARCHITECTURE GUIDING PRINCIPLES

6.1.1 A. ASSESS HOW WELL THE TECHNOLOGY SOLUTION ALIGNS WITH THE BUSINESS DIRECTION

The proposed solution would replace the existing system and modernize the technology serving the business processes. The existing system lacks several capabilities which the business compensates for by employing manual processes. The proposed solution would automate those processes by bringing them into a single solution with a single user interface.

6.1.2 B. ASSESS HOW WELL THE TECHNOLOGY SOLUTION MAXIMIZES BENEFITS FOR THE STATE

If the proposed project achieves its goals, it will contribute to the efficiency and cost-effectiveness of the State's Attorney's offices and staffs and the central office, supporting SAS in its mission to assure that all Vermonters have equal protection under the law.

6.1.3 C. ASSESS HOW WELL THE INFORMATION ARCHITECTURE OF THE TECHNOLOGY SOLUTION ADHERES TO THE PRINCIPLE OF INFORMATION IS AN ASSET

Significantly, the proposed project would bring into the document storage system certain documents that are currently stored in local servers in State's Attorney's offices (amount to about 37TB of data), a key requirement of the modernization aspect of the project. The result is that dispersed information would become centrally managed, much more secure, and be much more efficiently accessed by users.

6.1.4 D. ASSESS IF THE TECHNOLOGY SOLUTION WILL OPTIMIZE PROCESS

See 6.1.1, above.

6.1.5 E. ASSESS HOW WELL THE TECHNOLOGY SOLUTION SUPPORTS RESILIENCE-DRIVEN SECURITY.

In the security context, the term resilience refers to an approach that not only responds to *known* threats, but also anticipates and hardens against *unknown* threats by assessing multiple potential modes of attack and preventing such attacks categorically. The proposed solution employs several interrelated avenues to accomplish that end: most importantly, adherence to CJIS security policy in conjunction with the protections afforded by AWS GovCloud hosting, vendor security policy including protection of proprietary software and ongoing code security practices and testing and regular penetration testing. We assess this multi-modal approach as comprehensively resilient.

6.2 SUSTAINABILITY

Regarding environmental sustainability, the proposed project would potentially obviate the use of the local office servers and would move the CMS system to AWS. Amazon claims to be 5 times more energy efficient than typical (European) data centers, and that the electricity for the data centers used by the proposed project (U.S. East) is obtained 100% from renewables.[1]

With regard to solution sustainability, the contract term for the proposed project is 5 years, with 5 additional years renewable at the State's option. Ten years would be a fairly long lifetime for an enterprise solution; and in the meantime, as this is a multi-tenant solution, the State would receive enhancements and updates any time they are implemented for any customer.

6.3 HOW DOES THE SOLUTION COMPLY WITH THE ADS STRATEGIC GOALS ENUMERATED IN THE AGENCY OF DIGITAL SERVICES STRATEGIC PLAN 2022-2026?

6.3.1 IT MODERNIZATION

The proposed solution would significantly modernize SAS's case management system, replacing the existing unsupported and generally outdated system. The new solution would greatly improve useability and access and would use the new system to consolidate business processes.

6.3.2 CYBERSECURITY & DATA PRIVACY

See Section 11, Security Assessment, below.

6.3.3 VERMONTER EXPERIENCE

The proposed solution has no publicly-accessible interface, but its effects would be felt by the general populace as an improvement in service and in victim advocacy.

6.3.4 FINANCIAL TRANSPARENCY

N/A

6.4 COMPLIANCE WITH THE SECTION 508 AMENDMENT TO THE REHABILITATION ACT OF 1973, AS AMENDED IN 1998

Requirement TEC.12 of the Functional and Technical Requirements in the Bidder Response Form reads:

> *Information will be provided to system users in plain language and in a manner that is accessible and timely: Individuals living with disabilities including accessible Web sites and the provision of auxiliary aids and services at no cost to the individual in accordance with the Americans with Disabilities Act and Section 504 and 508 of the Rehabilitation Act. Individuals who are limited*

[1] https://sustainability.aboutamazon.com/products-services/the-cloud?energyType=true

English proficient through the provision of language services at no cost to the individual, including: Oral interpretation. Written translations. Taglines in non-English languages indicating the availability of language services.

[redacted]

More concerning is that TEC.12 is ungrammatical and confusing. We recommend that the State revise that language to be clear and relevant in future RFPs.

ALSO: Please see Additional Comments on Architecture, below.

6.5 DISASTER RECOVERY

Disaster Recovery Plan

Matrix uses AWS spanning multiple availability zones.

The AWS Disaster Recovery Plan can be found here:
https://docs.aws.amazon.com/wellarchitected/latest/reliability-pillar/plan-for-disaster-recovery-dr.html

Database Backups

[redacted]

6.6 DATA RETENTION

The proposed system has the capability of retaining data indefinitely, with an increased storage cost when the State requires more storage (currently $50/TB/month or $600/TB/year). The File and Document Requirements set forth by the State require the system to have the ability to automatically calculate record retention schedules, configurable based on defendant sentence and case types (e.g., juvenile, felony, violent felonies), and to calculate the date after which a file may be destroyed under State's records retention schedule, given the date of sentencing and the sentence. There are several other closely-related File and Document Requirements, most of which are currently standard in the proposed application.[redacted]

[redacted] So, we assess it very likely that all retention requirements would be met by the time the system would be implemented.

The system has the ability to support "active archive" evidence retention that allows SAS to maintain evidence in a cheaper, less available state for future use.

The Technical Requirements set forth by the State also require the system to retain data from 2016 onward indefinitely, to meet guidelines promulgated by the Office of the National Coordinator for Health IT (ONC) and the Centers for Medicare & Medicaid Services (CMS, in a context other than this report). If that requirement would indeed apply to the proposed project, the effectively unlimited storage capability of the solution as offered, in conjunction with the “active archive” function described above, would meet the requirement.

6.7 SERVICE LEVEL AGREEMENT

6.7.1 WHAT ARE THE POST IMPLEMENTATION SERVICES AND SERVICE LEVELS REQUIRED BY THE STATE?

Regarding Data Security and Backup

The vendor’s proposal includes the following table:

[redacted]

Assessment

These are reasonable and appropriate service targets.

Regarding Availability:

The vendor’s *sample SLA* states,

[redacted]

99.9% availability is the de-facto standard in recent enterprise cloud solutions. [redacted]

We have no concern about the vendor's ability to meet the 99.9% target, but rather suggest that the vendor's proposed SLA should be examined carefully before including it in the contract.

Relatedly, the proposed SLA does not include any remedies to compensate the State should service targets not be met. We would suggest that remedies are incentivizing, even if never invoked. **A good example is in the SLA provided by Axon**, provider of one of the subcontractor options presented by the vendor in the original proposal. **Axon's** SLA includes the following statement and table:

> *"**Axon** will use commercially reasonable efforts to make the Service Offerings available 99.99% of the time. Guaranteed service level & Service Credits:"*

Monthly Uptime Percentage	*Service Credit in Days*
Less than 99.9%	*3*
Less than 99.0%	*7*

Regarding Ongoing Support

The vendor's proposed SLA states:

[redacted]

The vendor offers appropriate support components across a variety of media. With a central office and 14 county offices, some of them quite large (e.g. Chittenden), SAS might need more than [redacted] especially if they are the only users with access to the Matrix Support team.

6.7.2 IS THE VENDOR PROPOSED SERVICE LEVEL AGREEMENT ADEQUATE TO MEET THOSE NEEDS IN YOUR JUDGMENT?

Yes, with the exception of the comments above. The vendor appears capable and experienced in providing appropriate solution availability and user support.

6.8 SYSTEM INTEGRATION

6.8.1 IS THE DATA EXPORT REPORTING CAPABILITY OF THE PROPOSED SOLUTION CONSUMABLE BY THE STATE?

Yes, the proposed solution includes adequate data analysis and report generation capabilities.

6.8.2 WHAT DATA IS EXCHANGED AND WHAT SYSTEMS (STATE AND NON-STATE) WILL THE SOLUTION INTEGRATE/INTERFACE WITH?

The table below shows the anticipated interfaces for the proposed system. The Criticality column indicates where the particular interface is critical to ideal SAS CMS operation (marked “critical”) or a desired by not absolutely required interface (marked “desired”). The vendor response column indicates “S” for an interface standard to the application and “C” for interfaces that would require customization by the vendor.

System/Interface	Vendor	Type of Integration	Reason for Integration	Criticality	Vendor Response	Method of Integration (e.g., flat file, API, XML, HTTP, etc.)
Tyler Odyssey	Tyler	Unidirectional or bidirectional	Exchange case file and docket information between the court and prosecutor's office.	Critical	S	Tyler API or Legal XML ECF 5.0
Valcour - the regional CAD/RMS in Vermont, similar to Spillman	Valcour	Unidirectional	Passing public safety data to the new CMS	Critical	S	GJXDM/NIEM IEPD
Valcour - the regional CAD/RMS in Vermont, similar to Spillman	Valcour	Bidirectional	Enabling the new CMS to update public safety system records	Desired	C	
Evidence.com - video evidence management system	Axon	Unidirectional	Unless CMS can store video evidence, integration would not be efficient	Desired	S	API

Evidencelibrary.com - video evidence management	Watchguard	Unidirectional	Unless CMS can store video evidence, integration would not be efficient	Desired	C	API
JailTracker	JailTracker	Bidirectional	Offender management system to exchange offender data between the Department of Corrections and prosecutors	Desired	C	
Outlook	Microsoft	Bidirectional	Calendar integration of items from new CMS to individual prosecutors; use for email messaging regarding information in the new CMS	Desired	S	
VT Justice Information System (VJISS)	VT Dept of Public Safety	Bidirectional	Data broker for bidirectional information flow between Odyssey, Valcour, Vermont Orders and Warrants System (VOWS), and the new CMS; VJISS also provides access to legacy Spillman system data	Desired	C	MatrixAPI

Additional Comments on Architecture:

The project team informed us that in the drafting of the RFP it was necessary to delete "20 or 30" NFRs from the standard set provided by the State because they do not apply to a cloud solution hosted by a vendor or in a cloud service such as Azure or AWS (as the proposed solution is). They suggest that the State should develop a revised set of NFRs for that type of project. We agree with the recommendation, as cloud-hosted solutions are increasingly common and preferred in State procurements.

7 ASSESSMENT OF IMPLEMENTATION PLAN

Figure 1 - Preliminary Implementation Master Schedule from vendor

The Gannt chart above is included in the draft contract as the preliminary Implementation Master Schedule (IMS) and is expected to be refined and detailed through continued contract negotiation and during information gathering and requirements analysis once the project commences. It was provided by the vendor and reflects their current assessment of the size and scope of the project. It envisions a seven-to-eight-month duration to configure the system, convert data, integrate with external systems, and train users. The State project team wisely assumes that, in the event, the timeframe may actually be as long as a year.

Project segments include:

1. Project Initiation & Information Gathering
2. Configuration Analysis & Design
3. System Deployment
4. Testing
5. Training
6. Data Conversion

7. Interfaces
8. Implementation & Transition
9. Project Management

The relatively brief [redacted] System Configuration segment reflects the fact that the solution is designed solely as a criminal CMS, so that the vendor's task would be mainly configuration (as opposed to coding). The Training segment, [redacted] This too is appropriate, as training would be conducted among geographically disparate users over 15 sites, who have a wide range of technical proficiency and quite likely crowded schedules. [redacted]

[redacted] Note that the interfaces listed in this chart are not necessarily those that will be implemented, depending on State choice of options. Only the Tyler/Odyssey (Judiciary CMS) and Valcour (Public Safety Records) interfaces are mandatory in this implementation. Please see Section 6.8.2 Interfaces, above, for more information.

The vendor employs the Agile Software Development Life Cycle (SDLC) for their coding processes. This approach is consistent with State preferences and expectations and generally has become common practice in the industry.

For each of the project segments above, the vendor's proposal includes a table of vendor responsibilities and State responsibilities. We found these responsibility tables to be quite specific, which should contribute positively to helping the State keep the project on track by anticipating the particular needs for State participation.

More information about the details of each segment may be found in the Sample Implementation Plan included as Attachment #5 in the vendor's proposal.

Overall Assessment

The Implementation Plan, as it exists at this time prior to contract execution, is well-paced, reasonably comprehensive, and clear. It takes into account the specific needs, size, and capabilities of the State. The attention to the importance of training reflects well on the vendor's experience with comparable projects. We concur with the State's decision to approach this as a year-long project that may be completed 8 months if there are no unanticipated delays.

There are some relatively minor adjustments to the plan as it exists in the current contract draft which will be necessary before attaching it as the IMS to the contract as executed. The State is discussing those changes and the vendor is amenable. We assess the Implementation Plan as likely to succeed.

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

7.1 THE REALITY OF THE IMPLEMENTATION TIMETABLE

The vendor has had extensive experience implementing the proposed application at other government entities larger and smaller than SAS. Although the requirements vary depending on local need, most of those installations had very similar feature sets to those necessary for SAS. The vendor's estimate of the timetable is likely to be quite accurate in execution, and the State has built in sufficient "cushion" to mitigate most conceivable delays.

Organizational change could be difficult for SAS staff, as new processes and procedures will need to be adopted. We identified this as a **_RISK_ID# _R1_**. The State's approach to mitigating this risk is to identify change management activities to implement during system implementation and address during design of training phase. We concur.

The department of SAS has 2 IT staff people for a department of 175 employees and 29 work sites. The **_RISK_ID# _R3_** is that the situation could potentially force a choice between necessary IT support and attention to project needs. The engagement of a third-party source for project management and related activities reduces the likelihood of this risk being realized. Additionally, the 2nd IT staff resource has recently been hired in response to the recognized burden on IT staff. This is a good approach and greatly reduces the likelihood of the risk being realized.

We assess the implementation timetable to be realistic.

7.2 READINESS OF IMPACTED DIVISIONS/ DEPARTMENTS TO PARTICIPATE IN THIS SOLUTION/PROJECT

(Consider current culture, staff buy-in, organizational changes needed, and leadership readiness).

SAS staff have shown strong enthusiasm for this project. The central office has a relatively small staff, so staff availability to manage and participate in a new project may be limited. We identified this as a **_RISK_ID# _R2_** SAS assumes an implementation timeline that is 50% longer than the vendor's estimation. (1 year as opposed to 8 months). We concur, as the "padding" seems more than adequate to address the risk.

The 14 State's Attorneys offices might be less enthusiastic initially, as they are familiar with the existing system and a major change could be daunting. Negative experiences with SAS's current CMS vendor, JustWare, could result in implementation apprehension from State's Attorneys' offices. We identified this as a **_RISK_ID# _R4_** . The State will identify change management activities to implement during system implementation and address during design of training phase. We concur with that mitigation, and we expect that the improvements and efficiencies of the new system will likely increase buy-in. (The 14 Sheriffs offices employ a different system and would be much less affected by the change.)

7.3 DO THE MILESTONES AND DELIVERABLES PROPOSED BY THE VENDOR PROVIDE ENOUGH DETAIL TO HOLD THEM ACCOUNTABLE FOR MEETING THE BUSINESS NEEDS IN THESE AREAS:

7.3.1 A. PROJECT MANAGEMENT

The following project management deliverables are required by the draft contract:

Project Management Deliverables
Project Charter
Project Management Plan
Formal Acceptance Criteria
Formal Acceptance Sign Off
Change Requests
Change Requests Log
Budget Log
Risk Log
Issue/Action Items/Decision Log
Decision Log
Requirements Documents
Test Plans
Test Cases & Results
User Acceptance Test Plan, Cases, & Results
Implementation Master Schedule
Project Status Reports
Project Phase Audit/Gate Check
Meeting Agenda/ Minutes
End of Project Metrics
Lessons Learned
Closeout Report

The list of project management deliverables is reasonably comprehensive, and the contract draft includes extensive descriptions of each, covering specifics such as roles and responsibilities, change management, risk management, HR management, quality management, etc. Update frequency and State approval are included for each item.

The list as a whole is clear and specific.

7.3.2 B. TRAINING

The vendor's training approach is multi-modal, including options for on-site and remote sessions, and hard copy materials. The SAS CMS user base is geographically dispersed in the 14 State's Attorney's offices and the central office. As mentioned above, the training portion of implementation will need to

adjust to the particular training needs of these offices, some of which have relatively large staff while others are very small, and varying schedules of staff availability. The vendor's approach accommodates these needs, and the vendor understands the need to adjust training to the State's needs.

The vendor's Sample Implementation Plan [redacted] However, this sample plan was provided by the vendor in their initial proposal, which makes clear that it will be preceded by developing a training plan and schedule during project implementation.

The current draft contract does not have details about training, but it does obligate the vendor to provide the training.

Users will also have continuous access to step-by-step feature guides, illustrations, recorded training webinars, video tutorials, and release notes.

7.3.3 C. TESTING

The vendor employs an Agile/Hybrid approach to project development management. That approach is usually based on user stories development via business analysis and uses acceptance testing (UAC) to confirm that the system meets those business needs at each development cycle before acceptance by the State.

7.3.4 D. DESIGN

The proposed solution is in use in other governmental entities. Design processes in the proposed project would mostly involve configuration design and interface design, in both of which the vendor has significant experience.

7.3.5 E. CONVERSION (IF APPLICABLE)

Conversion in this project consists of migrating all case data from the existing (JustWare) system into the new system. This process can be problematic if the data format is not clean and clear, or if the previous vendor is uncooperative. For the proposed project, there is no indication of a problem with existing data quality, and the previous vendor is obligated by contract to cooperate with the State to provide exported data. We do not anticipate any problems.

Additionally, the approximately 37TB of data (e.g., video and audio files) currently residing on local servers in State's Attorney's offices would be migrated to the new CMS, potentially increasing security, accessibility, and reliability.

7.3.6 F. IMPLEMENTATION PLANNING

The preliminary implementation plan is a reasonable starting point for details to be agreed after project initiation.

7.3.7 G. IMPLEMENTATION

The vendor has proposed project management deliverables, requirements discovery and user acceptance testing processes, experienced personnel, and a reasonable outline of a training approach to reasonably assure the State of meeting business goals.

7.4 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 JUDGMENT?

The State is receiving project management support from a third-party vendor with a long history of successful work with the State. The support from that vendor has also included work during the initiation and procurement phase (e.g., analysis of vendor responses to the RFP, project Charter development, assistance with the IT ABC form, etc.) The costs for this support are included in project costs shown on Attachment #1, Cost Spreadsheet, below; and on the revised IT ABC Form. Internally, SAS has an IT Director who has been deeply involved with the project and experienced with the current CMS. ADS has provided project oversight via the Portfolio Manager.

Additional Comments on Implementation Plan:

none

8 COST ANALYSIS AND MODEL FOR BENEFIT ANALYSIS

8.1 ANALYSIS DESCRIPTION:

Provide a narrative summary of the cost benefit analysis conducted.

Tangible benefits are derived from figures on Attachment 1, Cost Spreadsheet, below.

Intangible benefits are derived from the project Charter, the project IT ABC Form, and interviews with project personnel.

8.2 ASSUMPTIONS:

List any assumptions made in your analysis.

- Cost assumptions are as described in **Section 10, Impact Analysis on Net Operating Cost, below**.

8.3 FUNDING:

Provide the funding source(s). If multiple sources, indicate the percentage of each source for both Acquisition Costs and on-going Operational costs over the duration of the system/service lifecycle.

Please see **Section 10.3, in Impact Analysis on Net Operating Cost, *below*.** (Includes Acquisition and Operating costs)

8.4 TANGIBLE COSTS & BENEFITS:

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

TANGIBLE ANNUAL COST INCREASE: $54,305.39

TANGIBLE IMPLEMENTATION COST: $704,409.00

8.5 INTANGIBLE COSTS & BENEFITS:

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

THE STATE EXPECTS THE FOLLOWING INTANGIBLE BENEFITS:

Table 9 - Intangible Benefits

Intangible Benefit	How will Achievement be Measured?
Retiring the existing, unsupported CMS	The SAS will have a new, supported CMS in production.
SAS clients will be better served with a system that is readily configurable, secure and includes the appropriate native interfaces to the Judiciary/Courts CMS.	Accuracy, security and timeliness of data sharing. Increase in accurate data available to the justice process, thereby decreasing delays. Prosecutors and their staff may prepare cases more quickly.
Alleviating the strain of system filing and discovery processes on deputy state's attorneys via integration with Tyler Odyssey, the Judiciary's court case management system, and other systems as required (e.g., law enforcement)	New system successfully integrated with Judiciary's CMS and the Department of Public Safety (DPS) Valcour data system.
Providing State's Attorney's Offices with a system that can support uniform business processes while remining configurable to office-specific requirements	All State's Attorney's offices are using the CMS as deployed, including standard business processes across the State.
Alleviating the burden of manual workflows and paper-based processes on administrators, paralegals, and secretaries	Minimal continuance of manual workflows. Elimination of local servers storage of evidentiary documentation and migration to more secure and integrated storage.
Ensuring victim advocates are equipped with appropriate system functionality (e.g., workflows, alerts, messaging and notification features) to support the critical work of keep victims appraised of relevant case updates	Victim advocates have been and will continue to be part of the new CMS project team, working with their colleagues to ensure consistent use and functionality.
Ensuring each State's Attorney's Office is equipped to collect and store all data for current and future State and federal reporting requirements and compliance with existing and new State and Federal standards.	Continued compliance with State and Federal requirements.

8.6 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.

Yes, the benefits outweigh the costs.

The tangible increase in annual operating costs is relatively slight and very reasonable in light of the significant improvements offered by the proposed solution. The implementation costs are reasonable and include the costs due the vendor as well as project management and related costs on the State side.

The intangible benefits are significant, going well beyond the obvious benefit of replacing an obsolete and dangerously unsupported system. The expected features would potentially improve efficiencies in both the State's Attorneys offices and the SAS office, eliminate deprecated manual processes, and better serve victims and victim advocates, in turn better serving the citizens of Vermont.

8.7 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 IT ABC form for this project has recently been updated and reflects the current condition of the project, including financial projections and expectations.

There is one minor issue which results from the way the IT ABC form itself automates some financial entries: The Annual Operating Costs column includes an entry of $57,600.00 for possible costs of continuing hosting of the existing system until data migration is verified. The IT ABC form automatically multiplied this figure by the projects operational lifecycle of 5 years, resulting in a total of $228,000.00. In fact, if it is necessary to incur this cost, it would in all likelihood occur during the first year of operation and not in the remaining 4, resulting in **an overstatement of total project costs by $230,400.00.** The present Independent Review corrects this error by designating the $57,600.00 hosting cost as an implementation cost, even though it would take place in the first year of operation, as it is functionally a part of implementation.

We recommend that the State revise the IT ABC Form to accommodate one-time expenses, even if they would take place in operational years.

Additional Comments on the Cost Benefit Analysis:

none

9 ANALYSIS OF ALTERNATIVES

9.1 PROVIDE A BRIEF ANALYSIS OF ALTERNATE TECHNICAL SOLUTIONS THAT WERE DEEMED FINANCIALLY UNFEASIBLE.

N/A

9.2 PROVIDE A BRIEF ANALYSIS OF ALTERNATE TECHNICAL SOLUTIONS THAT WERE DEEMED UNSUSTAINABLE.

Aside from awarding a different bidder during the procurement process, the only existing technical alternative would be to continue use of the existing CMS. Doing so would be clearly unsustainable, as there is a reasonable expectation that the existing, unsupported, and un-updateable current system would fail in one of the ways described in the present Report. Such an event could result in a dangerous condition for the State and its citizens, if the information produced and used by State's Attorneys was interrupted or compromised.

9.3 PROVIDE A BRIEF ANALYSIS OF ALTERNATE TECHNICAL SOLUTIONS WHERE THE COSTS FOR OPERATIONS AND MAINTENANCE WERE UNFEASIBLE.

N/A

10 IMPACT ANALYSIS ON NET OPERATING COSTS

10.1 INSERT A TABLE TO ILLUSTRATE THE NET OPERATING COST IMPACT.

Table 10 - Project Lifecycle Costs

	Procurement	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Project Cost	$704,409.00	$256,500.00	$259,500.00	$262,500.00	$272,565.00	$282,841.95	**$2,038,315.95**
Hypothetical Current Cost	$0.00	$212,476.00	$212,476.00	$212,476.00	$212,476.00	$212,476.00	**$1,062,380.00**
Total Cost Compared	$704,409.00	$44,024.00	$47,024.00	$50,024.00	$60,089.00	$70,365.95	**$975,935.95**

Table 11 - Project Lifecycle Cumulative Costs

	Procurement	Year 1	Year 2	Year 3	Year 4	Year 5
Project Cost Cumulative	$704,409.00	$960,909.00	$1,220,409.00	$1,482,909.00	$1,755,474.00	$2,038,315.95
Current Costs Cumulative		$212,476.00	$424,952.00	$637,428.00	$849,904.00	$1,062,380.00
Cumulative Cost Savings	**-$704,409.00**	**-$748,433.00**	**-$795,457.00**	**-$845,481.00**	**-$905,570.00**	**-$975,935.95**

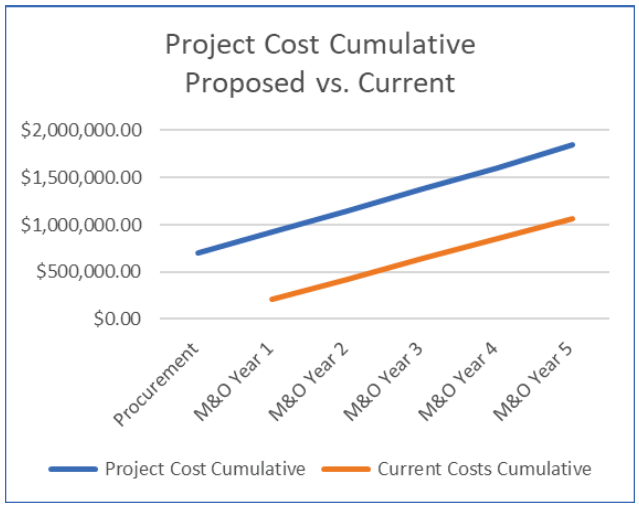

Figure 2 - Cumulative Cost Impact over Lifecycle

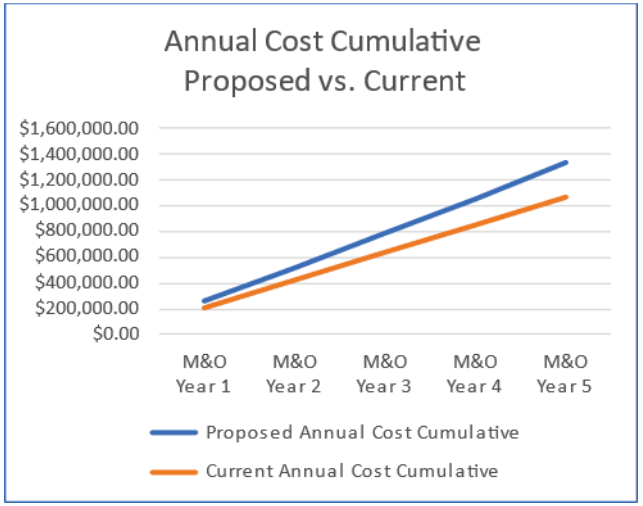

Figure 3 - Annual Cost Cumulative Current vs New

10.2 PROVIDE A NARRATIVE SUMMARY OF THE ANALYSIS CONDUCTED AND INCLUDE A LIST OF ANY ASSUMPTIONS.

All cost figures are derived from Attachment 1, Cost Spreadsheet, below.

Assumptions for the analysis:

- That agreed contract costs are as shown in the current contract draft.
- That all options listed in the contract (e.g., additional storage, additional users, all interfaces) are included in project cost.
- That continued hosting of the existing system for data migration verification is for the first operational year
- That estimates for third-party project management services are accurate
- That estimates for ADS support are accurate

10.3 EXPLAIN ANY NET OPERATING INCREASES THAT WILL BE COVERED BY FEDERAL FUNDING. WILL THIS FUNDING COVER THE ENTIRE LIFECYCLE? IF NOT, PLEASE PROVIDE THE BREAKOUTS BY YEAR.

This project would be supported in part by Federal ARPA Funding in the following proportions:

- **Federal (ARPA) 59.87%**
- **State 40.13%**

The table below delineates these allocations.

Table 12 - Federal vs State Share of Cost

	Procurement	M&O Year 1	M&O Year 2	M&O Year 3	M&O Year 4	M&O Year 5	TOTAL
Total Project Cost	**$704,409.00**	**$256,500.00**	**$259,500.00**	**$262,500.00**	**$272,565.00**	**$282,841.95**	**$2,038,315.95**
Federal Cost	$704,409.00	$256,500.00	$259,500.00	$0.00	$0.00	$0.00	**$1,220,409.00**
Federal Share of Cost	100%	100%	100%	0%	0%	0%	**59.87%**
State Cost	**$0.00**	**$0.00**	**$0.00**	**$262,500.00**	**$272,565.00**	**$282,841.95**	**$817,906.95**
State Share of Cost	**0%**	**0%**	**0%**	**100%**	**100%**	**100%**	**40.13%**
Current Cost	$0.00	$212,476.00	$212,476.00	$212,476.00	$212,476.00	$212,476.00	$1,062,380.00

10.4 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 activity as a whole as currently projected, as the proposed annual cost is slightly more than the current annual cost and there is a significant implementation cost.

Note that currently projected annual costs include subscriptions for 3 data interfaces which the State may option not to implement. If all 3 were not implemented, the total project annual M&O costs would be $59,563.53 less total over the 5 operational years. Similarly, not implementing those 3 interfaces would take $30,000.00 off the implementation cost, **reducing the total project cost to $89,563.53**.

11 SECURITY ASSESSMENT

Assess Information Security alignment with State expectations. ADS-Security Division will support reviewer and provide guidance on assessment.

The system would be cloud hosted in AWS GovCloud, guaranteeing compliance with NIST 800-53 and FedRAMP requirements, and using native cloud storage. All data is kept within the United States.

[redacted] This is consistent with State requirements and preferences.

[redacted]

The vendor is obligated contractually to fulfill and align with all State security requirements and expectations.

Taken as a whole, the proposed solution is highly secure, protecting citizens privacy and rights, clearly recoverable, and compliant with all applicable standards and requirements.

11.1 WILL THE NEW SYSTEM HAVE ITS OWN INFORMATION SECURITY CONTROLS, RELY ON THE STATE'S CONTROLS, OR INCORPORATE BOTH?

Most of the controls in a cloud environment are shared between the cloud provider and the consumer.

11.2 WHAT METHOD DOES THE SYSTEM USE FOR DATA CLASSIFICATION?

The proposed system uses compliance standards for classifying data. The vendor indicates compliance with the State-identified Standards, Policies, and Laws for

- Confidential Personally Identifiable Information (PII)
- Personal Health Information (PHI)
- Personal Information from Motor Vehicle Records
- Criminal Records

- Juvenile Records (The vendor indicated that the solution may support these standards as defined by State Laws: 33 VSA 5117 and 33 VSA 5110, but the solution has not yet been evaluated against those particular requirements.

11.3 WHAT IS THE VENDOR'S BREACH NOTIFICATION AND INCIDENT RESPONSE PROCESS?

This process is defined in the draft contract in Attachment D, Information Technology System Implementation Terms and Conditions (rev. 3/08/19) **Section 6.2** and is compliant with Section 9 V.S.A. §2435(b)(3).

11.4 DOES THE VENDOR HAVE A RISK MANAGEMENT PROGRAM THAT SPECIFICALLY ADDRESSES INFORMATION SECURITY RISKS?

The Risk Management program plan is a required deliverable of the project.

11.5 WHAT ENCRYPTION CONTROLS/TECHNOLOGIES DOES THE SYSTEM USE TO PROTECT DATA AT REST AND IN TRANSIT?

[redacted]

All the above encryption technologies are secure and appropriate to the proposed project.

11.6 WHAT FORMAT DOES THE VENDOR USE FOR CONTINUOUS VULNERABILITY MANAGEMENT, WHAT PROCESS IS USED FOR REMEDIATION, AND HOW DO THEY REPORT VULNERABILITIES TO CUSTOMERS?

TEC. 81 of the Bidder Response Form requires that "Hosting Service Provider will conduct an annual network and application penetration test for Vermont's Production Environment and provide a report on the results of the network and application penetration test." The vendor indicates that they comply with this requirement, but do not provide results to the client (i.e., the State). That qualification is appropriate in a multi-tenant application, because sharing details of vulnerabilities with attendant risk of broader exposure potentially endangers both the State and the vendor's other customers. However, intrusion alerts are shared with customers who are affected.

These practices are appropriate.

11.7 HOW DOES THE VENDOR DETERMINE THEIR COMPLIANCE MODEL AND HOW IS THEIR COMPLIANCE ASSESSED?

The vendor's security stance complies with the Criminal Justice Information Services (CJIS) Security Policy (currently Version 5.9.1) checklist. CJIS was promulgated by the FBI and is the appropriate security policy for the proposed system. CJIS aligns very closely with NIST 800-53 rev. 5, and a CJIS to NIST mapping can be found at: https://www.fbi.gov/file-repository/csp-v5_5-to-nist-controls-mapping-1.pdf/view.

AWS Hosting ensures that security policy aligns with The Federal Risk and Authorization Management Program (FedRAMP); NIST 800-53 rev. 5; Mission Assurance Category (MAC) Level I security policies; Federal Information Security Management Act (FISMA) of 2002; relevant portions of NIST 800-37; the Federal Identity, Credential, and Access Management (FICAM) Roadmap and Implementation Guidelines; and 26 U.S.C. § 6103 and related provisions (these are relevant to personal tax return information).

11.8 FURTHER COMMENTS ON SECURITY

none

12 RISK ASSESSMENT & RISK REGISTER

The risks identified throughout this review are collected below, along with an assessment of their significance, a description of the State response and timing, and our evaluation of the State response.

12.1.1 ADDITIONAL COMMENTS ON RISK

none

12.1.2 RISK REGISTER

The following table explains the Risk Register components:

Risk ID:	Identification number assigned to risk or issue.	
Risk Rating:	An assessment of risk significance, based on multiplication of **(probability X impact ratings)** (*see below*).	
	1-9 = low	See table below
	10-48 = moderate	
	49-90 high	
Probability:	Assessment of likelihood of risk occurring, scale of **1,3,5,7, or 9**, from least to most likely	
Impact:	Assessment of severity of negative effect, scale of **1,3,5,7, or 10**, from least to most severe	
Finding:	Review finding which led to identifying a risk	
Risk Of:	Nature of the risk	
Risk domains:	What may be impacted, should the risk occur	
State's Planned Risk response	Detailed description of response to risk, in order to accomplish decision	
Reviewer's Assessment:	Reviewer's evaluation of the State's planned response	

Risk Rating Matrix			IMPACT				
			Trivial	Minor	Moderate	Major	Extreme
			1	3	5	7	10
LIKELIHOOD	Rare	1	1	3	5	7	10
	Unlikely	3	3	9	15	21	30
	Moderate	5	5	15	25	35	50
	Likely	7	7	21	35	49	70
	Very Likely	10	10	30	50	70	100

Risk ID: R1	Rating:	**9**	
	Likelihood:	**3**	
	Impact:	**3**	
Finding:	Organizational change can be difficult on SAS staff, as new processes and procedures will need to be adopted.		
Risk:	"Delay of full adoption of the implemented system and/or disruption of business"		
Risk domains:	Project Objectives		
State's Planned Risk Response:	Identify change management activities to implement during system implementation and address during design of training phase.		
Reviewer's Assessment of State's Planned Response	concur		

Risk ID: R2	Rating:	**5**	
	Likelihood:	**1**	
	Impact:	**5**	
Finding:	Staff availability to manage and participate in a new project.		
Risk:	Project delay		
Risk domains:	implementation Timeline		
State's Planned Risk Response:	SAS assumes an implementation timeline that is 50% longer than the vendor's estimation. (1 year as opposed to 8 months)		
Reviewer's Assessment of State's Planned Response	Concur. This "padding" seems more than adequate to address the risk.		

Risk ID: R3	Rating:	**7**	
	Likelihood:	**1**	
	Impact:	**7**	
Finding:	The department of SAS has 2 IT staff people for a department of 175 employees and 29 work sites.		
Risk:	Forcing a choice between necessary IT support and attention to project needs		
Risk domains:	Project timeline		
State's Planned Risk Response:	The engagement of a third-party source for project management and related activities reduces the likelihood of this risk being realized. The 2nd IT staff resource has recently been hired in response to the recognized burden on IT staff.		
Reviewer's Assessment of State's Planned Response	Concur.		

Risk ID: R4	Rating:	**21**	
	Likelihood:	**3**	
	Impact:	**7**	
Finding:	Negative experiences with the SAS's current CMS vendor, JustWare, could result in implementation apprehension from State's Attorneys Offices		
Risk:	Continued use of deprecated business processes after Go Live		
Risk domains:	Project Objectives		
State's Planned Risk Response:	Identify change management activities to implement during system implementation and address during design of training phase.		
Reviewer's Assessment of State's Planned Response	Concur.		

Risk ID: R5	Rating:	**35**	
	Likelihood:	**5**	
	Impact:	**7**	
Finding:	The current CMS is unsupported by Journal Technologies, including security patches and critical software bug patches, since 6/30/2021.		
Risk:	Functionality degrading over time and causing operational issues and/or a security hole.		
Risk domains:	Project context		
State's Planned Risk Response:	State has engaged third-party support which should allow the system to operate through implementation of the new system.		
Reviewer's Assessment of State's Planned Response	Concur.		

13 ATTACHMENTS

Attachment 1 – Cost Spreadsheet

Attachment 2 – Risk Register

Attachment 1: SAS CMS IR Cost Spreedsheet v.1.0.a - Paul Garstki Consulting - 2023/10/11

Project Name:	SAS Case Management System										
Description	**Qty**	**Unit Price**	**Implementation**	**Maintenance & Operation**	**Maintenance & Operation**	**Maintenance & Operation**	**Maintenance & Operation**	**Maintenance & Operation**	**Total**	**Lifecycle Total @ Current Annual Cost**	**Benefit**
Fiscal Year			**1 year**	**FY1**	**FY2**	**FY3**	**FY4**	**FY5**			
Software Licensing											
Matrix Subscription Cost (includes support)			$ -	$ 204,000.00	$ 204,000.00	$ 204,000.00	$ 210,120.00	$ 216,423.60	$ 1,038,543.60		
Storage Budget		$ 600.00	$ -	$ 21,000.00	$ 24,000.00	$ 27,000.00	$ 30,000.00	$ 33,000.00	$ 135,600.00		
Additional User Budget			$ -	$ 12,000.00	$ 12,000.00	$ 12,000.00	$ 12,360.00	$ 12,730.80	$ 61,090.80		
Matrix Integration Subscription Fee: Tyler Odyssey			$ -	$ 3,900.00	$ 3,900.00	$ 3,900.00	$ 4,017.00	$ 4,137.51	$ 19,854.51		
Matrix Integration Subscription Fee: Valcour RMS/CAD			$ -	$ 3,900.00	$ 3,900.00	$ 3,900.00	$ 4,017.00	$ 4,137.51	$ 19,854.51		
Matrix Integration Subscription Fee: Evidencelibrary.com - Watchguard			$ -	$ 3,900.00	$ 3,900.00	$ 3,900.00	$ 4,017.00	$ 4,137.51	$ 19,854.51		
Matrix Integration Subscription Fee: JailTracker			$ -	$ 3,900.00	$ 3,900.00	$ 3,900.00	$ 4,017.00	$ 4,137.51	$ 19,854.51		
Matrix Integration Subscription Fee: VT Justice Information System			$ -	$ 3,900.00	$ 3,900.00	$ 3,900.00	$ 4,017.00	$ 4,137.51	$ 19,854.51		
Software Licensing Total			**$ -**	**$ 256,500.00**	**$ 259,500.00**	**$ 262,500.00**	**$ 272,565.00**	**$ 282,841.95**	**$ 1,333,906.95**	$ 1,062,380.00	**$ (271,526.95)**
Vendor Implementation Services											
Matrix Project Management			$ 16,000.00						$ 16,000.00		
Matrix Project Initiation & Info Gathering			$ 8,000.00						$ 8,000.00		
Matrix Configuration Analysis & Design			$ 42,000.00						$ 42,000.00		
Matrix System Testing			$ 8,000.00						$ 8,000.00		
Matrix Data Conversion (Justware)			$ 20,000.00						$ 20,000.00		
Matrix Interface (Tyler Odyssey),			$ 10,000.00						$ 10,000.00		
Matrix Interface (Valcour RMS/CAD)			$ 10,000.00						$ 10,000.00		
Matrix Interface (Evidencelibrary.com)			$ 10,000.00						$ 10,000.00		
Matrix Interface (JailTracker)			$ 10,000.00						$ 10,000.00		
Matrix Interface (VT Justice Information System)			$ 10,000.00						$ 10,000.00		
Matrix Training			$ 80,000.00						$ 80,000.00		
Matrix Implementation & Transition			$ 16,000.00						$ 16,000.00		
Matrix Travel			$ 20,000.00						$ 20,000.00		
Vendor Implementation Services Total			**$ 260,000.00**	**$ -**	**$ -**	**$ -**	**$ -**		**$ 260,000.00**	$ -	**$ (260,000.00)**
Other Implementation Costs											
Hosting Fees for existing system until data migration is confirmed			$ 57,600.00						$ 57,600.00		
Other Implementation Costs Total			**$ 57,600.00**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 57,600.00**		**$ (57,600.00)**
State-Provided Licensing											
[none]											
State-Provided Licensing Total			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**		**$ -**	$ -	**$ -**
Professional Services											
Contracted Services for Project Management			$ 362,000.00						$ 362,000.00		
Contracted Services for Business Analyst			$ -						$ -		
Independent Review			$ 17,769.00						$ 17,769.00		
Professional Services Total			**$ 379,769.00**	**$ -**	**$ -**	**$ -**	**$ -**		**$ 379,769.00**	$ -	**$ (379,769.00)**
Training											
[included in Vendor Implementation Services above]									$ -		
Training Total			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**		**$ -**	$ -	**$ -**
Implementation Services Additional											
[none]									$ -		
Implementation Services Total			**$ -**	**$ -**	**$ -**	**$ -**	**$ -**		**$ -**	$ -	**$ -**
State Personnel											
ADS EPMO Project Oversight & Reporting			$ 7,040.00						$ 7,040.00		
ADS Enterprise Architect Staff for implementation									$ -		
ADS Security Staff for implementation									$ -		
ADS Quality Assurance Services for implementation									$ -		
State Personnel Total			**$ 7,040.00**	**$ -**	**$ -**	**$ -**	**$ -**		**$ 7,040.00**	$ -	**$ (7,040.00)**
Grand Total			**$ 704,409.00**	**$ 256,500.00**	**$ 259,500.00**	**$ 262,500.00**	**$ 272,565.00**	**$ 282,841.95**	**$ 2,038,315.95**	$ 1,062,380.00	$ (975,935.95)

NOTES / ASSUMPTIONS:

Notes:

1. Storage costs will be based upon actual usage. State and Contractor may negotiate reduced storage pricing as available.

ATTACHMENT 2 - SAS CMS INDEPENDENT REVIEW -- Risk and Issues Register -- version 1.0.a 2023/December/13 -- Paul E. Garstki, JD -- Paul Garstki Consulting

RISKS

What is the finding that leads to identifying a risk? (This is a highly condensed version that is explained more fully in the report narrative)

What are the risks implied by the finding?

What aspects of the project are at risk if the risk(s) are realized?

What is the State's response to the risk?

Is the State's response to this risk adequate?

Reviewer's assessment of likelihood risk is realized 1,3,5,7, or 10

Reviewer's assessment of impact if risk is realized 1,3,5,7, or10

1-9 low
10-48 medium
49-100 high

Note: Risk ID # list may have gaps, in order to maintain consistency with earlier drafts

Risk #	Finding	risk	risk domains	SOV response	Reviewer Assessment of SOV Response	likelihood 1-10	impact 1-10	total rating
R1	Organizational change could be difficult for SAS staff, as new processes and procedures will need to be adopted.	Delay of full adoption of the implemented system and/or disruption of business	Project Objectives	Identify change management activities to implement during system implementation and address during design of training phase.	Concur.	3	3	9
R2	Staff availability to manage and participate in a new project may be limited.	Project delay	implementation Timeline	SAS assumes an implementation timeline that is 50% longer than the vendor's estimation. (1 year as opposed to 8 months)	Concur. This "padding" seems more than adequate to address the risk.	1	5	5
R3	The department of SAS has 2 IT staff people for a department of 175 employees and 29 work sites.	Forcing a choice between necessary IT support and attention to project needs		The engagement of a third party source for project management and related activities reduces the likelihood of this risk being realized. The 2nd IT staff resource has recently been hired in response to the recognized burden on IT staff.	Concur.	1	7	7
R4	Negative experiences with the SAS's current CMS vendor, JustWare, could result in implementation apprehension from State's Attorneys Offices	Continued use of deprecated business processes after Go Live	Project Objectives	Identify change management activities to implement during system implementation and address during design of training phase.	Concur.	3	7	21
R5	The current CMS is unsupported by Journal Technologies, including security patches and critical software bug patches, since 6/30/2021.	Functionality degrading over time and causing operational issues and/or a security hole.		State has engaged third-party support which should allow the system to operate through implementation of the new system.	Concur.	5	7	35

ISSUES	Issue Description	Issue Consequence		State Response
I1	[none]			