

Independent Review

Child Nutrition System

For the
State of Vermont
Agency of Education



**Submitted to the
State of Vermont, Agency of Digital Services
June 3, 2020**

Final

Prepared by:

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1 Executive Summary

This Independent Review (IR) was undertaken to evaluate the viability of, and provide a recommendation to proceed or not proceed with respect to, the procurement of a Child Nutrition system for the State of Vermont's (State's) Agency of Digital Services (ADS) and Agency of Education (AOE).

The AOE began developing a request for proposal (RFP) in August 2018 for a Child Nutrition management system in preparation for replacing its current information technology (IT) system that was reaching the end of its original lifecycle term. However, shortly after the development of the requirements began, the project experienced significant delays in the schedule due to staff turnover within the AOE (the Division Director and Assistant Director) and ADS (the Project Manager). In order to mitigate the risk of losing its current IT system and/or support, the AOE submitted two separate waiver requests to the State's Procurement Advisory Team (PAT) to extend its contract with Colyar Technology Solutions (Colyar), resulting in a new contract end date of September 30, 2020.

The project staffing issues were resolved and the RFP was issued in November 2019. The AOE received two proposals: one proposal from Colyar and the other from the AOE's current Grants Management System (GMS) provider, Making Technology Work (MTW). Through the proposal evaluation process, the evaluation team (consisting of representatives from the AOE and ADS) has selected MTW as the preferred vendor.

While MTW's proposed implementation costs total less than \$1,000,000 (the financial threshold requiring an Independent Review per Vermont statute), the AOE's Chief Financial Officer (CFO) requested the project go through an Independent Review for the following reasons:

- MTW has not previously implemented a Child Nutrition management system
- The current contract with Colyar was set to expire before the AOE could transition to another vendor's solution

At the beginning of this Independent Review, the AOE reported that it was in the process of requesting another waiver request to the State's PAT to extend its contract with Colyar until September 30, 2021; however, the AOE had not received approval until after the risks were identified and documented for inclusion in this report. The State's responses to those risks are included in Attachment 2 – Risk Register.

There are a total of seven risks identified during this review, all of which will have a negative impact should they be realized. The biggest risk identified is the procurement of a new solution that may not meet the federal requirements and/or business needs due to the vendor's lack of experience with implementing a Child Nutrition management system. The ADS has communicated to BerryDunn that Vermont is generally reluctant to invest in "cutting- or bleeding-edge technologies" not previously implemented for state government agencies.

BerryDunn recommends that the AOE and ADS use the information in this report to acknowledge all seven risks and risk mitigation activities planned before entering into a contract with MTW in order to minimize the risk of an unsuccessful implementation.

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)	\$1,071,047
Total Implementation Costs	\$327,947
New Annual Operating Costs (5 Years)	\$743,100
Current Annual Operating Costs (5 Years)	\$1,028,000
Difference Between Current and New Operating Costs	\$284,900
Funding Source(s) and Percentage Breakdown of Multiple Sources	100% Federal

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 \$327,947 . The acquisition costs assessed included those applicable to configuration/implementation services (\$92,000), the State's contracted business analyst (BA), ADS project management/oversight, ADS security staff, ADS Enterprise Architect (EA), ADS IT staff (\$212,447), and the Independent Review (\$23,500).
Technology Architecture and Standards Review	Harvest is proposed as a Software-as-a-Service (SaaS), web-based, transactional system build on the Microsoft technology stack. Data from Harvest is transformed nightly into a data warehouse to support ad-hoc reporting needs.
Implementation Plan Assessment	The actual implementation timeline is unknown. At the time of the RFP, the AOE was not expecting many proposals given how small the market is for Child Nutrition management systems.

Deliverable	Highlights From the Independent Review Include Explanations of Any Significant Concerns
	Both MTW and the AOE reported the need to develop an Implementation Master Schedule (IMS) prior to contract execution.
Cost-Benefit Analysis	Given the immaturity of MTW's Harvest solution, it is difficult to determine if and when the AOE will be able to realize the projected intangible benefits. While the AOE will realize cost savings related to ongoing maintenance and operations (M&O) costs, it is not clear if there will be any other tangible benefits. BerryDunn recommends that the State fully assess all of the risks associated with executing a contract with a vendor that is new in the Child Nutrition management system market.
Analysis of Alternatives	<p>Through the competitive bid process for the AOE's Child Nutrition management system, the State evaluated two potential Child Nutrition solutions; Harvest (proposed by MTW) and the SaaS-based Child Nutrition Programs system (proposed by Colyar). While both vendors received the same score in the solution category, MTW outscored Colyar in both pricing and maintenance and support services.</p> <p>While there are limited vendors and solutions in the Child Nutrition market, BerryDunn believes that the competitive bid and proposal evaluation process was a sound approach to understanding the State's options for implementing a new Child Nutrition management system for the AOE.</p>
Impact Analysis on Net Operating Costs	The AOE will realize cost savings with MTW's Harvest solution in year two and an overall break-even point at the end of year four.
Security Assessment	Data classifications stored and managed in a Child Nutrition management systems include personally identifiable information (PII) and student education data, which are subject to strict security and privacy regulations such as the Federal Educational Rights and Privacy Act (FERPA). Based on the results from MTW's written responses to the security assessment questions and the vendor interview conducted during this Independent Review, BerryDunn identified risk of the AOE implementing a solution that does not meet State and federal security requirements. More information can

Deliverable	Highlights From the Independent Review Include Explanations of Any Significant Concerns
	be found in the Security Assessment section and Risk #5 in Attachment 2 of this report.

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 three 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	There is risk of procuring a new solution that does not meet the federal requirements and/or business needs due to the vendor's lack of experience with implementing a child nutrition management system.	High	High	High
2	There is risk of delays in the project schedule due to limitations on AOE resources.	High	High	High
3	There is risk of project delays and unfulfilled obligations by MTW due to the lack of appropriate allocation of a project manager.	High	High	High
4	If Colyar does not agree to an extension of the current contract, AOE is at risk of not having an IT system to administer their Child Nutrition programs.	Low	High	Medium
5	There is risk AOE may not have a new solution before the contract with Colyar expires.	Medium	High	High
6	There is risk that Vermont's implementation of the Harvest solution will not fully address the applicable federal and state security requirements.	Medium	High	High
7	The extremely low implementation cost does not provide enough incentive for holding MTW accountable to deliver all the necessary design, development, and implementation services, presenting risk of project delays and unfulfilled obligations by MTW.	Low	High	Medium

1.4 Other Key Issues

The contract between the AOE and MTW is only in draft form and still under development. Therefore, this Independent Review Report is a point-in-time document that reflects current key risks and concerns.

1.5 Recommendation

BerryDunn recommends that the AOE and ADS use the information in this report to acknowledge all seven risks and risk mitigation activities planned before entering into a contract with MTW in order to minimize the risk of an unsuccessful implementation.

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.



June 3, 2020

Independent Reviewer Signature

Date

1.6 Report Acceptance

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

ADS Oversight Project Manager

Date

State of Vermont Chief Information Officer

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 45, §2222(g):

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

The Independent Review Report includes:

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

This Independent Review was conducted using the following schedule:

- Week of April 6, 2020: Conduct a project kickoff meeting; develop the participation memo and schedule on-site interviews; review documentation.
- Week of April 13, 2020: Conduct stakeholder and vendor interviews; request additional information for documentation review.
- Week of April 20, 2020: Conduct additional research; document initial findings; draft Independent Review Report and Risk Register; provide Risk Register to the State.
- Week of May 4, 2020: Provide the preliminary Independent Review Report to the State.
- Week of May 11, 2020: Collect feedback; update the draft Independent Review Report; submit the updated draft (proposed final draft) Independent Review Report to the State.
- Week of April 1, 2020: Present the Independent Review Report to the Chief Information Officer (CIO); complete any follow-up work and updates to the Independent Review Report; obtain CIO sign-off via the Enterprise Project Management Office (EPMO) Oversight Project Manager (OPM) on the Independent Review Report; facilitate the closeout meeting.

2.2 Out-of-Scope

All Independent Review components were in scope for this review.

3 Sources of Information

3.1 Independent Review Participants

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

Table 3.1: Independent Review Participants

Name	Organization	Participation Topic(s)
Amanda Meredith	ADS	Financial/Contracting, Project Management, Information Technology, Project Leadership, Vendor
Anne Bordonaro	AOE	Project Leadership
Bill Bates	AOE	Finance/Contracting
Brenda Swyers	MTW	Vendor
Brent Morgan	MTW	Vendor
Dan Carier	MTW	Vendor
David Ladouceur	ADS	Information Technology, Vendor
Jill Rehagen	MTW	Vendor
John Hunt	ADS	Information Technology, Architecture Assessment
John Leu	AOE	Finance/Contracting
Kathy Flanagan	AOE	Finance/Contracting
Katy Stohlberg	AOE	Finance/Contracting
Kevin Viani	ADS	Information Technology
Mary (Rosie) Krueger	AOE	Project Leadership
Sheila Miller	MTW	Vendor
Shelley Matz	AOE	Finance/Contracting
Trisha Watson	ADS	Financial/Contracting, Project Management, Information Technology, Project Leadership, Vendor

3.2 Independent Review Documentation

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

Table 3.2: Independent Review Documentation

Document Name	Description	Source
CNP IT Activity Business Case and Cost Analysis (ABC) Form	IT ABC form to re-bid the State's current Child Nutrition Program system	AOE Child Nutrition Project SharePoint
Colyar Enhancements (Did and Did Not Do)	List of Colyar system enhancements the State implemented and did not implement, including description, cost, approval date, and notes	Rosie Krueger
MTW Deliverable Schedule	MTW's proposed deliverable/payment schedule for Harvest	MTW
MTW Payment Schedule	State's response to federal funds available to cover costs associated with Colyar and MTW contracts	MTW
MTW Child Nutrition Management System Technical Response	MTW's response to the State's RFP	MTW
State of Vermont IT RFP Child Nutrition Program	State RFP for a new Child Nutrition Program system including functional and non-functional requirements.	AOE Child Nutrition Project SharePoint
Various CNP Status Reports	Status reports on the development of an RFP and bidding process for a Child Nutrition Program system.	AOE Child Nutrition Project SharePoint
MTW Post-Demo Review Notes	State's post-demo discussion notes for MTW, highlighting positives and negatives of the demo	AOE Child Nutrition Project SharePoint
CNP Vendor Comparison and Recommendation	State's assessment of Colyar and MTW, comparing costs, RFP scores, concerns, and decisions	AOE Child Nutrition Project SharePoint

Document Name	Description	Source
CNP RFP Evaluation Template	State's scores of Colyar and MTW based on RFP rating criteria	AOE Child Nutrition Project SharePoint
CNP Vendor Demo Notes Colyar	State's notes of Colyar's demo	AOE Child Nutrition Project Notebook
CNP Vendor Demo Notes MTW	State's notes of MTW's demo	AOE Child Nutrition Project SharePoint
MTW Harvest VT Demo Final Plus Fresh Fruit and Vegetable Program (FFVP)	MTW's demo slideshow of Harvest including demo of the FFVP	AOE Child Nutrition Project SharePoint
MTW Fact-finding Security Response	MTW's answers to security questions brought up during the IR fact-finding interviews	MTW
MTW Harvest IT Contract Draft	State's draft contract with MTW for their Child Nutrition solution Harvest	AOE Child Nutrition Project SharePoint

4 Project Information

4.1 Historical Background

The AOE Child Nutrition Programs administer federal programs, including the National School Lunch Program, School Breakfast Program, Fresh Fruits and Vegetables Program, Child and Adult Care Food Program, and Summer Food Service Program, which all provide nutritious meals and snacks in schools, childcare settings, summer program sites, and adult day centers to eligible participants. The AOE provides program sponsors with guidance, technical assistance, training, monitoring and evaluation to help ensure that every program receives the maximum federal and state funding available and operates in compliance with federal and state requirements.

The AOE is currently using a SaaS-based Child Nutrition management system, consisting of program-based modules for the various federal programs that the AOE administers. The current solution, provided by Colyar under a maintenance and support contract, is coming to the end of its original lifecycle term, so the AOE released an RFP in November 2019. The objective of the RFP is to procure services for the development, implementation, hosting, and support of the Child Nutrition Program application and claims reimbursement system. Child Nutrition is an area with many federal and state regulations, so it is critical that the vendor can fulfill the requirements. Due to the current poor working relationship with Colyar, and uncertainty of a contract extension, the AOE is seeking a new contract with a vendor who can deliver on its federal, state, and other business needs.

Two vendors proposed on the AOE's RFP for a new system – Colyar and MTW. MTW is the AOE's current GMS vendor and it is new to the Child Nutrition management system market. Colyar has its SaaS-based solution rolled out in several states, including Vermont; whereas, Vermont would be the first state where MTW would implement its new Child Nutrition management solution, Harvest.

After a competitive bid process and further discussions to compare the two vendors, the AOE and ADS has chosen to pursue a five-year contract with MTW.

4.2 Project Goal

The State of Vermont seeks to achieve the following Business Values:

- Cost Savings
 - A single claims reimbursement system that handles all components of application, renewal, and claiming reduces work and paper waste
 - The new solution will provide configuration options to the AOE to meet business and reporting needs without being charged for each update required
 - The new solution will provide State users with self-service options for running ad hoc reports
- Customer Service Improvements
 - Provide School Food Authorities and Program Sponsors with the application and reimbursement mechanism needed to enable services to Vermont's eligible participants
 - A single solution to speed up application and claiming processes for both the customer and the state agency
 - Provide consistency throughout the programs and processes;
 - Provide automated workflows
- Risk Reduction
 - A comprehensive, functioning claims reimbursement system reduces the risk of audit and monitoring findings from state auditors and federal monitors
 - The new solution will provide accuracy in data usage, reporting, and calculations
 - Reduce manual processes
 - Improve operating efficiency and accuracy
- Compliance
 - The new solution meets all State and federal compliance requirements for Child Nutrition programs
 - Provides automated updates as required by the United State Department of Agriculture (USDA)

4.3 Project Scope

The AOE is seeking to procure services for the development, implementation, hosting, and support of a Child Nutrition Program solution and claim reimbursement system.

The scope of work includes procurement of the following:

- A **Technology Solution** that addresses the business need(s)
- **Professional Services for Project Management** to manage the implementation of the technology solution
- **Professional Services to perform Technical Work** in support of the implementation
- **Professional Services for Maintenance and Support** of the implemented technology.

4.4 Major Deliverables

Table 4.1 provides a summary of the deliverables, descriptions, and frequency, as articulated in the draft contract with MTW.

Table 4.1: Project Deliverables and Frequency Proposed by the Vendor

Deliverable	Description	Frequency
Project Charter	The Project Charter provides basic information about the project. It includes a scope statement (what's in and out of scope); list of project deliverables; high level project timeline; key roles & responsibilities; known risks, assumptions and/or constraints.	Once unless there are changes
Project Management Plan (PMP)	The PMP will dictate specifics on how the MTW project manager will administer the project and will include the following: <ul style="list-style-type: none"> • Change Management Plan • Communication Management Plan • Requirements Management Plan • Human Resource Management Plan • Procurement Management Plan • Quality Management Plan • Risk and Issues Management Plan • Scope Management Plan 	Once unless there are changes
Formal Acceptance Criteria	Criteria that establishes acceptance and rejection criteria of each document.	Once
Formal Acceptance Sign Off	The sign off at the completion of each project deliverable as defined by the formal acceptance process.	Once
Change Requests	Formal document which outlines change to the contract scope, schedule, budget, and resources.	As necessary
Change Requests Log	The tracking of change requests and their impact to the project scope, budget, and schedule.	As necessary
Budget Log	The log outlines original contract costs by deliverable with billed and paid-to-date information.	As necessary

Deliverable	Description	Frequency
Risk Log	A log of all risks (open and closed) that could impact the project. Risks will be outlined by their impact and their potential to occur. All risks will have an owner.	As necessary
Issue/Action Items/Decisions Log	A log of open and resolved/completed issues. Issues will be outlined by their impact, owner, date of occurrence, and remediation strategy.	As necessary
Decision Log	A log of all decisions made over the course of the project. Decisions should have a date and name of decider.	As necessary
Requirements Documents	<p>Finalized list of the project requirements to be approved by the State. The approach is dictated by the Requirements Management Plan (see Project Management Plan), and can include:</p> <ul style="list-style-type: none"> • Stated requirements document (SRD): The SRD contains current state process flows, user stories, and business rules and states the business need at a high level. • Business requirements document (BRD): The BRD contains a medium level of requirements as well as required metrics of project success. • Functional requirements document (FRD): The FRD contains detailed requirements that can be handed off to the Contractor for execution. 	Once, updated as necessary with change control
Test Plans	A description of the testing approach, participants, sequence of testing and testing preparations.	Once per implementation phase
Test Cases and Results	The specific test cases to be tested and the testing results. Test Cases tie back to the project requirements (to help ensure each one has been met).	Once per implementation phase and update with the results
Implementation Master Schedule (IMS)	The IMS outlines how and when the system will go-live, which will include a mini-project plan for the exact events that need to occur, assigned to the resources	Once per implementation

Deliverable	Description	Frequency
	that need to do them and the timeframe for when they need to get done.	
Project Status Reports	The status reports will provide an update on the project health, accomplishments, upcoming tasks, risks and significant issues. The status report, including the overall project health shall be developed in consultation with the State business lead and State project manager.	Weekly
Project Phase Audit/Gate Check	At the end of each phase, the MTW project manager will submit an audit of all deliverables and milestones achieved during the applicable project phase to the State Project manager for review.	Once per phase
Meeting Agenda/Minutes	All scheduled meetings will have an agenda and minutes. The minutes shall contain risk issues, action items, and decision logs. Minutes shall be transcribed over to the main logs.	Per occurrence
End of Project Metrics	These are metrics that will reflect how well the project was performed. Metrics will be outlined in the Quality Management Plan.	Once
Lessons Learned	A compilation of the lessons learned having 20/20 hindsight. Lessons learned shall be delivered in an Excel template and collected from each of the State and Contractor project team members to get a full 360-degree view of the project in retrospect.	Once
Closeout Report	This report will include all the lessons learned, project metrics, and a summary of the project's implementation and outcome in operation.	Once

4.5 Project Phases and Schedule

Table 4.2 is a summary of MTW’s proposed project phases and originally proposed start and completion dates. The AOE and MTW need to develop and finalize an IMS before contract execution.

Table 4.2: Vendor Proposed Project Phases

Project Phase	Estimated Start Date	Estimated Completion Date
Project Planning	March 9, 2020	March 30, 2020
Discovery	March 30, 2020	May 1, 2020
Platform Initiation	March 30, 2020	April 16, 2020
Data Migration/Conversions	March 9, 2020	June 10, 2020
Customization and Configuration	May 1, 2020	July 17, 2020
Testing	July 17, 2020	August 18, 2020
Training	August 18, 2020	September 2, 2020
Implementation	August 18, 2020	August 25, 2020
Project Completion	August 28, 2020	September 8, 2020
Ongoing Support	August 25, 2020	Contract End Date

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
Hardware	\$0.00	
Software	\$0.00	
Implementation Services	\$78,000	Provided by MTW in the best and final offer (BAFO) document
Training	\$8,000	MTW training services
Project Management	\$6,000	MTW project management services
Other Contracted Professional Services	\$14,655	The State's contracted business analyst; Provided by the State in the IT ABC form
ADS EPMO Project Oversight	\$4,500	Provided by the State in the IT ABC form
ADS EPMO Project Manager	\$102,444	Provided by the State in the IT ABC form
ADS EPMO Business Analyst	\$51,404	Provided by the State in the IT ABC form
ADS Enterprise Architect	\$14,564	Provided by the State in the IT ABC form
ADS Security Staff	\$1,760	Provided by the State in the IT ABC form
Other ADS IT Labor	\$23,120	The State's integration team; Provided by the State in the IT ABC form
Independent Review	\$23,500	Independent review services provided by BerryDunn
Total One-Time Acquisition Costs	\$327,947	

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

BerryDunn worked with the AOE and ADS to validate the acquisition costs during stakeholder interviews and an updated IT ABC form, which will be routed 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?

The Child Nutrition management system market is small. States such as Colorado (2019), Mississippi, North Carolina (2006), and Virginia (2002) have Child Nutrition systems supported by Colyar. Dynamic Internet Solutions and Kyran Research Associates are other vendors in the market, providing Child Nutrition management systems to Utah (2006) and Nevada (2002) respectively. A comparison of what other states have paid to acquire a similar solution is as follows:

Table 5.2: Acquisition Cost Comparison

Vendor	State	Solution	Approx. Contract Value
Colyar	Mississippi	Web-based application and reimbursement system	\$1,733,900
Colyar	Colorado	Child Nutrition programs shared technology system	\$850,000
Colyar	North Carolina	Child nutrition claims and services system	\$399,000
Colyar	Virginia	Web-based system to manage claims processing for federal reimbursement	\$455,000
Dynamic Internet Solutions	Utah	Integrated system to support child nutrition programs	\$496,000
Kyran Research Associates	Nevada	Fully integrated, comprehensive, automated web-based application and claims processing replacement system	\$2,035,380

Source: GovWin IQ

Given the various years these example solutions were procured (going back as far as 2002) and the different scope components, a fair one-to-one comparison cannot be made. These examples do however show a range of costs for similar systems procured in various states.

BerryDunn compared the costs for Colyar’s child nutrition solution to the proposed costs of MTW’s solution, as financial information was readily available during this independent review. While MTW and Colyar had similar scores in evaluation areas such as Vendor Proposal/Solution and Vendor Demonstration; MTW outscored Colyar in Pricing, 112.50 to 46.88, respectively. Given that Vermont would be MTW’s first implementation of Harvest, there are significant cost savings that incentivize the State to pursue a contract with MTW.

According to the BAFO documentation, MTW’s implementation costs total approximately \$78,000 and includes the State’s top five wish list items plus 25 additional requirements. Colyar’s total implementation cost is approximately \$1,000,000 for the State’s top five wish list items only. Including all implementation services and annual fees for five years, MTW’s total cost is approximately \$787,000, while Colyar proposed a five-year total of

approximately \$2,900,000. The total MTW cost lies within the range of child nutrition systems procured in other states while Colyar's cost lies outside the upper range.

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

BerryDunn believes the low acquisition cost presents risk to the State because it does not provide enough incentive for holding MTW accountable to deliver all the necessary design, development, and implementation services. Please see Risk #7 in Attachment 2 for more information.

Additional Comments on Acquisition Costs:

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

MTW is proposing that Vermont be the first state to deploy version 1.0 of its Child Nutrition management system, Harvest. MTW's technical proposal explains that Harvest was built leveraging concepts from its other software products, but it has not reused any source code from existing products.

Vermont will be the lead in the expansion of Harvest as it moves beyond its initial releases. At this time, it is unclear how much additional development is required before the solution is operational and meets the minimum state and federal requirements.

2) Leverage shared services and cloud-based IT, taking advantage of IT economies of scale

Harvest is a SaaS solution, similar to the AOE's current GMS provided by MTW. The SaaS implementation will require no investment in infrastructure, equipment, network, or hardware by the State. MTW plans to initially host Harvest at its co-location facility in Overland, Kansas, with plans to move to an Azure-based cloud hosting solution at a later time.

3) Adapt the Vermont workforce to the evolving needs of state government

The State has programmatic need to undertake projects that will help them fulfill its mission. The Harvest solution may free up the time of CNP staff to do new tasks instead of entering data into multiple systems.

4) Apply enterprise architecture principles to drive digital transformation based on business needs

ADS has allocated an EA resource to the project team and a Vermont Enterprise Architecture Framework – Architecture Assessment was conducted for both proposed solutions. Both scores reflect a less than favorable adherence to the State's enterprise architecture principles. Given the small market for Child Nutrition management solutions, the State should not consider this a huge deficiency.

5) Couple IT with business process optimization, to improve overall productivity and customer service

The AOE has an opportunity to improve its business processes and productivity given the amount of development that is still required with MTW's Harvest solution. While there is risk with being the first State to implement a solution for administering federal and state programs, there is also opportunity.

6) Optimize IT investments via sound Project Management

During the vendor interview, MTW's Child Nutrition Practice Manager explained that the project manager will be allocated approximately 80 percent of the time during project initiation and will be reduced to 20 percent of the time during key project phases (e.g., design, testing). Given the immaturity of the Harvest solution, BerryDunn identified a risk related MTW's approach to project management, which can be found in Risk #3 in Attachment 2.

7) Manage data commensurate with risk

Data classifications stored and managed in a Child Nutrition management systems include PII and student education data, which are subject to strict security and privacy regulations such as the FERPA.

8) Incorporate metrics to measure outcomes

The AOE requires a solution that must include reports on program operations and performance indicators for all program sponsors and sites (e.g., percent of food and labor costs, percent of costs covered by federal reimbursement). MTW has indicated that its business intelligence software has the capabilities to track and measure outcomes, but they will need to discuss further during the discovery phase of the project.

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

The solution is based on Microsoft .NET technology with a Microsoft Structured Query Language (SQL) server database. The State has invested in Microsoft-based solutions previously, and ADS did not express any concerns with the underlying technical architecture of the Harvest solution.

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 Harvest solution is currently a proof of concept that requires a significant amount of development before it will meet the State and federal security requirements.

Based on the results of the vendor interview and BerryDunn's assessment of how the proposed solution is aligned with the State and federal security requirements, it was identified that MTW may not fully understand all the federal and State security requirements presenting risk of implementing a non-compliant solution. Please see Risk #5 in Attachment 2 for more information.

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

One of ADS' guiding principles is balancing the value of developing new capabilities with project risk and cost. BerryDunn recommends that the AOE and ADS use the information in this report to make an informed decision in order to adhere to balancing the value of developing a new Child Nutrition management system with the risks identified during this Independent Review.

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>

MTW has reported in its technical proposal, and during the vendor interview, that the solution complies with the necessary accessibility standards.

BerryDunn recommends that the State hold MTW accountable for providing the necessary test cases and or scenarios to help ensure compliance with the accessibility requirements.

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?

MTW maintains disaster recovery procedures and models for all hosted environments. Currently, backups are copied to facilities at another data center in the Kansas City area, and also another Disaster Recovery site in Utah, where MTW can provision environments within 24 hours in the event of a disaster at our primary data center. Backups are also regularly transmitted to our Development Centers, including one in Jefferson City, Missouri, approximately 150 miles away.

Based on the information available at the time of this review, BerryDunn believes MTW's approach to satisfying disaster recovery requirements is adequate.

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

The AOE requires the system to help ensure data for the CNPs are accurately stored and accessible for a minimum of six years. Permanent program agreements must be stored indefinitely, as they are legally binding documents. MTW's proposal confirms that the Harvest solution will meet the data retention needs accordingly.

The State should include data retention test cases during user acceptance testing (UAT) to help ensure the requirements are satisfied before go-live.

- 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?

It is not clear if MTW's proposed service-level agreements meet the State's needs, as the non-functional requirements (NFRs) did not articulate all service-level requirements, such as minimum uptime and system response time. Rather, the State's approach was to request bidders to propose post implementation services and service levels.

The AOE and ADS did not express any concerns with MTW's proposed post implementation services and service levels; however, if gaps are discovered during contract negotiations, those gaps should be resolved before contract execution.

- 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?

APIs do not currently exist, but MTW plans to customize its solution to interface with the following systems:

- OnBase – The State's document management system
- VISION – The State's financial management system
- GMS – The AOE's grants management system
- Food and Nutrition Services (FNS) National Disqualification List (NDL) – The federal system used to manage the Child and Adult Care Food Program disqualifications
- System for Award Management (SAM) – The federal system used to check whether entities can legally receive federal funds

Additional Comments on Architecture:

7 Assessment of Implementation Plan

1. The reality of the implementation timetable.

The actual implementation timeline is unknown. At the time of the RFP, the AOE was required to have an operational solution in place before the current contract with Colyar was set to expire (September 30, 2020). Now that the AOE has received approval from the State's PAT to extend the contract end date to September 30, 2021, MTW and the State have time to develop an implementation schedule that is feasible and meets the AOE's needs. A baseline IMS should be finalized before contract execution.

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 AOE project leadership stated that the AOE staff are ready for a new and enhanced solution. The CNP team has been frustrated with the current system and poor service level provided by Colyar. MTW has an existing relationship with the AOE and the Agency feels MTW is committed to providing a solution that meets its needs and will meet or exceed ongoing service-level agreements.

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

A. Project Management

In MTW's technical proposal, it provides the following project management deliverables:

- Project Governance Plan
- Project Management Schedule
- Risk Management Plan
- Issue Management Plan
- Change Control Management Plan
- Communication Management Plan

The list above does not align with the list of deliverables outlined in MTW's draft contract. BerryDunn recommends that the State require MTW to deliver the project management related deliverables outlined in Section 4.4 Major Deliverables of this report, as the deliverables are more aligned with the Project Management Body of Knowledge® (PMBOK®) standards and are more inclusive of the project management processes required for a large IT system project.

B. Training

MTW proposes to deliver Local Educational Agency (LEA) training sessions at up to four facilities across Vermont (secured by AOE). These facilities will allow LEA users to be trained in the Test Environment on using Harvest in hands-on sessions. Recordings of training sessions will also be available on the Harvest Logon page to system users.

The training plan will include the following:

- Who will be trained
- The size of training classes
- The format of the training
- Training schedule
- Training curriculum
- Definition of document management
- Training facility requirements and preparation for training sessions

BerryDunn recommends that training for all system users be conducted in a dedicated training environment and not in a testing environment.

C. Testing

According to MTW's technical proposal, the testing phase will involve AOE and potentially other stakeholders completing business processes (applications, claims, reports) within the Test environment, to help ensure that requirements are met, and also that Harvest is functioning as expected. Before UAT can be completed, MTW will deliver training to AOE users regarding how Harvest will work, so that expectations for the testing process are understood by all participants.

During UAT, MTW's helpdesk will begin tracking all reported issues, providing feedback regarding resolutions of those items. MTW will complete updates as needed, and migrate updates up to the Test environment frequently, until all testing issues are resolved and signed off by AOE.

D. Design

During the discovery phase of the project, MTW will demonstrate the Harvest functionality to the State and compare the functionality with the functional and non-functional requirements during a fit-gap analysis. MTW will draft and deliver a fit-gap analysis report to the AOE to confirm the customizations and configurations needed. After confirmed by the AOE, the requirements will be assigned to multiple sprints. The sprints will be developed and tested consistent with the priorities identified by the AOE.

E. Conversion (If Applicable)

MTW will create a data migration plan for data within the existing system. The conversion process will be completed early in the project so the MTW team can help ensure the final conversion, at the time the existing system is decommissioned, is complete and accurate.

Based on the SQL server backup, which the AOE will provide, MTW will develop a mapping process to bring Applications and Claims data across from the existing system, into the Harvest environments. MTW will also map uploaded files from LEAs into the document management utility within Harvest. After the data migration plan is approved by the AOE, MTW will execute a trial conversion into the Harvest Test environment, so that users can verify that the converted data is accessible as expected. After resolving any issues related to the migration and re-executing the conversion to help ensure the conversion process is complete, MTW will complete the conversion into the Harvest Production environment. Only the AOE users will have access to the Harvest Production environment, until the conversion is certified, and the system is ready for use by all users.

F. Implementation Planning

With each deployment, MTW will provide a document that details the contents of the updates within the release being installed. AOE will be provided recommendations on what and how to test the updates. In the event that the update does not function as desired, the prior build can be re-deployed to the Production environment (rolling back the prior update).

G. Implementation

MTW will closely monitor production activity during the initial applications and claims processes, to help ensure Harvest is performing to specifications.

The MTW Helpdesk will respond to requests for support consistent with the processes documented within the Service-Level Agreement. MTW proposes to work with the AOE program staff to quickly address any issues, and help ensure resolutions are deployed to production.

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 State currently has two project management resources assigned to the project. The lead project manager is extremely knowledgeable of the project background, potential risks and issues, and mitigation strategies required by the State.

BerryDunn recommends that the lead project manager be heavily actively involved in the project until the ADS EPMO and AOE feel that MTW is providing sufficient project

management and/or the State's deputy project manager is better positioned to play a larger role to help ensure project success.

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.

To conduct the cost-benefit analysis, BerryDunn used MTW's pricing summary and the most recent version of the IT ABC form, both of which the State provided.

BerryDunn validated each cost through the following methods:

- Maintenance Costs: BerryDunn verified the maintenance cost for Colyar in the draft contract amendment.
- Implementation Services: BerryDunn verified the one-time costs, totaling \$92,000, in MTW's BAFO response
- The cost for ADS contracted BA, project oversight, project management, security staff, other IT staff, and EA were verified in the most recent version of the IT ABC form and include:
 - ADS Contracted BA: \$14,655
 - ADS EPMO Project Oversight: \$4,500
 - ADS EPMO Project Management: \$102,444
 - ADS EA: \$14,564
 - ADS Security Staff: \$1,760
 - Other ADS IT Staff for Implementation: \$23,120

A detailed breakdown of these costs can be found in Attachment 1 – Life Cycle Cost-Benefit Analysis.

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

- The total implementation cost does not include the AOE resources allocated to the project.
- Costs for the Colyar contract do not extend past September 30, 2020.
- There is a five-year lifecycle with implementation services costs being incurred in Fiscal Year (FY) 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 AOE has secured federal funding from the USDA for acquisition costs and will continue to request federal funding each year for ongoing 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 – Implementation services include project management, system development, implementation/deployment, and training. These costs total \$92,000.

ADS Services – ADS services include business analysis, project oversight, project management, enterprise architecture, security analysis, and integration support. These costs total \$212,447.

Tangible Benefits:

Maintenance Costs: The ongoing annual costs will decrease with MTW’s Harvest solution. The estimated cost savings is approximately \$125,600 in year one, \$55,600 in year two and three, and \$48,100 in year four and five.

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 largest intangible benefit to the new solution is that the current solution will no longer be available and/or supported as of September 30, 2021. Without an IT system to administer the CNPs, the AOE would need to implement a manual, paper-based system for the day-to-day operations. Additional resources would be needed to help ensure the timely processing of applications and reimbursements in order for school food authorities and program sponsors to deliver services to Vermont’s eligible participants.

Other intangible benefits include the reduction of issues and inefficiencies that exist with the current system. The CNP team reported that the AOE users are not allowed to make changes to the “Internal Use Only” (e.g., AOE) section of applications that have been submitted by school food authorities and program sponsors. If a change needs to be made, the CNP team must contact the person that submitted the application, tell him/her what needs to be updated in the “Internal Use Only” section, and have him/her resubmit before the application can be processed. This is time consuming for the CNP team and the schools and programs responsible for

providing timely services to eligible participants. The AOE also reported that Colyar rolled out a system release without informing the CNP team. This update resulted in the incorrect financial disbursement of funds, which is against federal regulations.

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.

Given the immaturity of MTW's Harvest solution, it is difficult to determine if and when the AOE will be able to realize the projected intangible benefits. While the AOE will realize cost savings related to ongoing maintenance and operations (M&O) costs, it is not clear if there will be any other tangible benefits, such as day-to-day operational cost savings. BerryDunn recommends that the State fully assess all of the risks associated with executing a contract with a vendor that is new in the Child Nutrition management system market.

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 project team identified the need to update the IT ABC form, as the approved form did not include all of the implementation costs, specifically the cost for ADS staff. BerryDunn recommends that the project team use this Independent Report to revise the IT ABC form and route for review and approval.

Additional Comments on the Cost Benefit Analysis:

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.

Through the competitive bid process for the AOE’s Child Nutrition management System, the State evaluated two potential Child Nutrition solutions; Harvest (proposed by MTW) and the SaaS-based Child Nutrition Programs system (proposed by Colyar).

A team of business, financial, and technology representatives evaluated and scored various aspects of the vendors’ proposals, including Vendor Proposal/Solution (30%), Vendor Profile (10%), Professional Implementation Services (15%), Maintenance and Support Services (15%), Pricing (25%), and Vendor Demo (5%). The tables below reflect the points, scores, and totals for each of the Child Nutrition Claims Reimbursement proposals evaluated by the State.

Table 9.1: Harvest/MTW

Proposal Section	Points Average	Weighted Score
Vendor Profile	2.50	25.00
Vendor Proposal/Solution	3.13	93.75
Professional Implementation Services	3.00	45.00
Maintenance and Support Services	3.50	52.50
Pricing	4.50	112.50
Vendor Demonstration	3.38	16.88
Total	20.21	345.63

Table 9.2: SaaS Child Nutrition Program/Colyar

Proposal Section	Points Average	Weighted Score
Vendor Profile	3.63	36.25
Vendor Proposal/Solution	3.13	93.75
Professional Implementation Services	3.50	52.50
Maintenance and Support Services	2.75	41.25
Pricing	1.88	46.88
Vendor Demonstration	2.63	13.13
Total	17.52	283.75

During the stakeholder interviews, the AOE expressed that the current working relationship between the State and Colyar is poor and the State has noted there has been a lack of attention on the vendor's part to adequately address the State's needs. This has left the State without desired enhancements and with software updates that have caused the State difficulty in meeting USDA regulations for its programs. Colyar's solution is potentially unsustainable and currently does not fulfill the State's needs.

Given the limited vendors and solutions in the CNP market, BerryDunn believes that the competitive bid and proposal evaluation process was a sound approach to understanding the State's options for implementing a new Child Nutrition management system for the AOE.

10 Impact Analysis on Net Operating Costs

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

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

Table 10.1: Lifecycle Costs in Fiscal Year

Impact on Operating Costs	FY 2021	FY 2022	FY 2023	FY 2024	FY2025	5-Year Totals
Professional Services (Non-Software Costs)						
Current Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Projected Costs	\$115,500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$115,500.00
Software Acquisition, Maintenance, Support, and Licenses Costs						
Current Costs	\$205,600.00	\$205,600.00	\$205,600.00	\$205,600.00	\$205,600.00	\$1,028,000.00
Projected Costs	\$0.00	\$80,000.00	\$150,000.00	\$150,000.00	\$157,500.00	\$537,500.00
Other Costs (State Labor)						
Current Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Projected Costs	\$212,447.00	\$0.00	\$0.00	\$0.00	\$0.00	\$212,447.00
Baseline Annual Current Costs	\$205,600.00	\$205,600.00	\$205,600.00	\$205,600.00	\$205,600.00	\$1,028,000.00
Baseline Annual Projected Costs	\$327,947.00	\$80,000.00	\$150,000.00	\$150,000.00	\$157,500.00	\$865,447.00
Cumulative Current Costs	\$205,600.00	\$411,200.00	\$616,800.00	\$822,400.00	\$1,028,000.00	\$1,028,000.00
Cumulative Projected Costs	\$327,947.00	\$407,947.00	\$557,947.00	\$707,947.00	\$865,447.00	\$865,447.00
Net Impact on Professional Services	(\$115,500.00)	\$0.00	\$0.00	\$0.00	\$0.00	(\$115,500.00)
Net Impact on Software Acquisition, Maintenance, Support, and Licenses Costs	(\$6,847.00)	\$125,600.00	\$55,600.00	\$55,600.00	\$48,100.00	\$278,053.00
Net Impact on Operating Costs:	(\$122,347.00)	\$125,600.00	\$55,600.00	\$55,600.00	\$48,100.00	\$162,553.00

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

BerryDunn conducted an impact analysis on net operating costs using the costs validated and verified in acquisition cost assessment and cost benefit analysis.

The following calculations were used in performing the analysis:

- The projected FY 2021 costs for Professional Services includes:
 - MTW's implementation services: \$92,000
 - Independent Review Services: \$23,500
- The projected FY 2021 cost for Other Costs (State Labor) includes:
 - ADS Contracted BA: \$14,655
 - ADS EPMO Project Oversight: \$4,500
 - ADS EPMO Project Management: \$102,444
 - ADS EA: \$14,564
 - ADS Security Staff: \$1,760
 - Other ADS IT Staff for Implementation: \$23,120
- The current costs for Software Acquisition, Maintenance, Support, and Licenses Costs in FY 2021 is for the Colyar system.

Assumptions:

- The implementation costs will be paid for in FY 2021.
- Projected costs for Software Acquisition, Maintenance, Support, and Licenses Costs will not be incurred until FY 2022.

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.

The AOE confirmed that operating costs will be covered by federal funding from the USDA.

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

The projected break-even point for this IT project is at the end of year four.



Figure 10.1: Cumulative Current and Cumulative Projected Costs

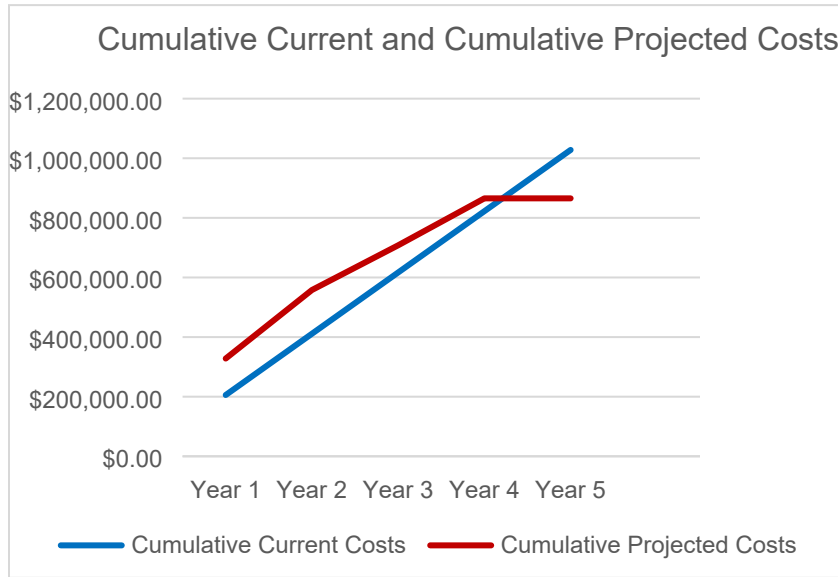
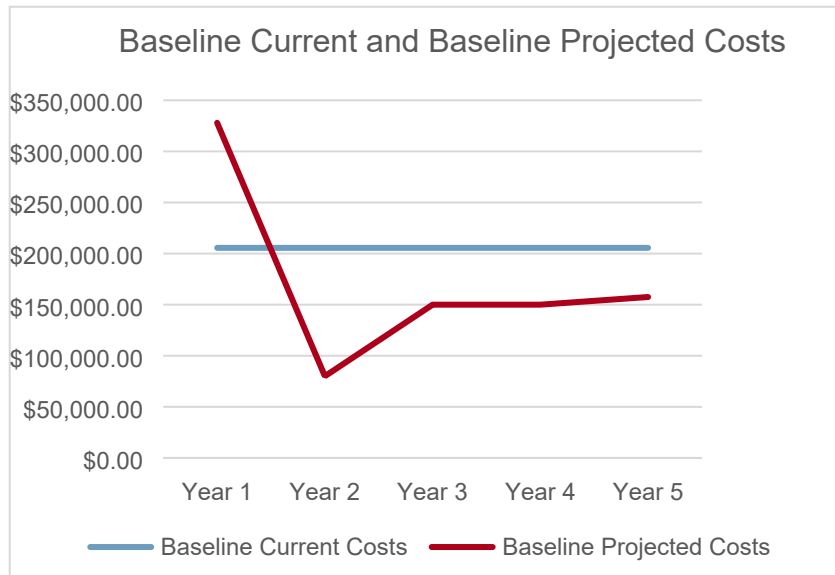


Figure 10.2: Baseline Current and Baseline Projected Costs



11 Security Assessment

BerryDunn requested that MTW provide written responses to the security questions outlined below.

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

Currently, Harvest supports its own authentication and role-based security. There is no current plan to integrate with a Vermont Active Directory, or other State of Vermont security control. However, if the state prefers to provide a single sign-on capability, MTW will modify Harvest to incorporate a single sign-on option. MTW has implemented single sign-on options for GMS clients. Supporting a single sign-on capability would require adding all Harvest users to Vermont's user authentication system.

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

Data stored within Child Nutrition management systems is sensitive to both FERPA, as well as the fact that information is either publicly available or available under Freedom of Information Act (FOIA) requests. To that end, MTW team members focus on whether privacy concerns would result in data needing to either be encrypted, or secure from reporting. MTW uses a User-Driven Data Classification policy, where team members identify if data stored or transmitted through Harvest is:

- Available to the public, or to FOIA requests,
- Contains PII, which would be restricted and/or encrypted,

MTW encrypts data at rest that can be used to identify an individual, group, or household. All data is encrypted during transport.

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

MTW communicates directly with client authorized contact when a breach is identified. If the breach is continuing, and MTW is unable to immediately contact the client authorized representative, MTW will disable access to the environment, or otherwise prevent the breach from continuing. When consulting with the client authorized representative, MTW will recommend courses of action to address the breach. Any such communications will be confirmed in writing. Additionally, MTW will work with the client to determine what was accessed during the breach, and a notification plan for impacted organizations. MTW will not make any contact with organizations, other than the direct client, without the written authorization of the direct client. Incident Response processes are detailed in Sections 4 and 5 of the MTW Service Level Agreement that was included in its RFP Response.

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

Yes, MTW has a risk management program. Based on MTW's previous experience working with the State of Vermont, MTW anticipates populating the Project Risk log that will be maintained on the AOE SharePoint site, to include a variety of Project Risks. Information Security risks will be included as a subgroup of risks within the log. MTW will present those risks to the AOE and ADS team members, and review the Risk Management Strategy to be employed to each of these risks.

Due to the PII being stored within Harvest, MTW anticipates several risks and strategies will be documented, reviewed, and regularly followed-up upon.

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

Based on the recommendations of ADS, MTW will implement the Advanced Encryption Standard-256 encryption algorithm for data encrypted at rest. This is the current default method supported by .NET Core 3.1, upon which Harvest is based. Secure sockets layer (SSL) certificates are employed on all Harvest websites using encryption for data in-transit that are at least at the minimum level required by the State.

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?

MTW uses Netsparker, a web application security solution, to provide automated security tests, including penetration tests. Items identified as a security risk are categorized by level of risk to help in prioritizing the necessary updates to the product. The most serious risks are handled first. Vulnerabilities are communicated directly to the Client Project Manager from the MTW Project Manager when discovered. They will be documented in the Issue and/or Risk Management logs on the AOE SharePoint site.

MTW also utilizes a vendor to continuously monitor the Production environments of all hosted clients. In the event of an environment disruption or intrusion, MTW is immediately notified, which in turn will result in the client being immediately notified. We will initially attempt to contact the client via phone with an email follow-up. In the event we cannot contact the primary contact, we will continue to contact authorized clients until we have successfully alerted the client.

7. How does the vendor determine their compliance model and how is their compliance assessed?

MTW utilizes two distinct compliance processes (models). Due to the fact that Harvest supports programs prescribed by the USDA, MTW reviews all proposed legislation that impacts programs administered under Harvest, as well as guidance issued that impacts these same programs. MTW proactively reviews this proposed legislation and guidance with clients, to help ensure that Harvest is appropriately configured to support any changes that are proposed. In the event that a State implemented state-specific legislation of guidance, MTW will work with that specific state to similarly help ensure that its Harvest

implementation includes necessary configurations. Compliance with such legislative and executive changes is assessed by a review with Harvest clients during regular project status meetings.

MTW also utilizes internal development compliance processes. Any code changes to the Harvest product are attached to unique work items. This enables us to effectively test and deploy customizations, and to review updates to help ensure compliance with our internal development standards. Any data updates are completed through the development of a script that is similarly assigned a unique work item number. Executed scripts are retained in a log for review in the event their history/effects needs to be reviewed. The MTW project manager is responsible for helping to ensure that these compliance processes are adhered to, and training new project team members on these and other processes.

Additional Comments on the Security Assessment:

Please see Risk #5 in Attachment 2 for risk of the proposed solution not meeting State and federal security requirements.

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 MTW's Harvest solution.

Table 13.1: Lifecycle Analysis

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
	FY 2021	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Configuration/Implementation	\$78,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$78,000.00
Software/Licenses	\$0.00	\$205,600.00	\$80,000.00	\$150,000.00	\$150,000.00	\$157,500.00	\$743,100.00
Other Professional Services							
Project Management	\$6,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,000.00
LEA Training	\$4,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,000.00
SEA Training	\$4,000.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,000.00
State Labor Costs							
Other Contracted Professional Services	\$14,655.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,655.00
ADS EP MO Project Oversight	\$4,500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,500.00
ADS EP MO Project Manager	\$102,444.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$102,444.00
ADS EP MO BA	\$51,404.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$51,404.00
ADS EA	\$14,564.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,564.00
ADS Security Staff	\$1,760.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,760.00

Description	Initial Implementation	Maintenance	Maintenance	Maintenance	Maintenance	Maintenance	
	FY 2021	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	Total
Other ADS IT Labor	\$23,120.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23,120.00
Totals							
Initial Implementation Cost	\$304,447.00						\$304,447.00
BerryDunn IR	\$23,500.00						\$23,500.00
Total Implementation	\$327,947.00						\$327,947.00
Total Lifecycle Operating Costs		\$205,600.00	\$80,000.00	\$150,000.00	\$150,000.00	\$157,500.00	\$743,100.00
Total Lifecycle Costs to be Paid with Federal Funds	\$327,947.00	\$205,600.00	\$80,000.00	\$150,000.00	\$150,000.00	\$157,500.00	\$1,071,047.00

14 Attachment 2 – Risk Register

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

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
1	High	High	High
Source of Risk: BerryDunn, Project			
<p>Risk Description: There is risk of procuring a new solution that does not meet the federal requirements and/or business needs due to the vendor’s lack of experience with implementing a child nutrition management system.</p> <p>In the past, the ADS has communicated to BerryDunn that Vermont is generally reluctant to invest in “cutting- or bleeding-edge technologies” not previously implemented for state government agencies. MTW is proposing that Vermont be the first state to implement its new child nutrition management system, Harvest. Harvest is currently a proof-of-concept and requires a significant amount of development before it can be operational for any of the State’s CNPs. MTW has been working with one internal subject matter expert (SME) in developing its Harvest solution; however, its SME’s prior experience is limited to only a few of the CNPs that are currently managed at the AOE.</p> <p>The State has requested that MTW propose an additional SME in order to strengthen its internal CNP subject matter expertise for Vermont’s implementation. During the vendor interview, MTW confirmed they are moving forward with hiring a candidate, but the candidate’s professional experience is more technical with limited CNP policy and operations experience.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
1	High	High	High
<p>MTW's lack of understanding Vermont's CNPs and lack of experience with implementing a child management system presents risk to the project scope.</p>			
<p>State's Planned Risk Strategy: Mitigate</p>			
<p>State's Planned Risk Response:</p> <ol style="list-style-type: none"> 1. The AOE has executed a contract amendment with Colyar to extend the current system through September 30, 2021, allowing for a more realistic implementation schedule. 2. The Program had initial approval (pre-COVID-19) to hire a Limited Service Position with available grant funds which would free up existing SMEs to help with implementation. The AOE has received approval (exemption from hiring freeze) from Secretary Young to hire for this position. The AOE is already aware of at least one qualified and interested candidate. 3. The extended timeline and freeing up of staff from items 1 and 2 will allow the staff more time to work directly with MTW on questions that arise during design and implementation. 			
<p>Timing of Risk Response:</p> <ol style="list-style-type: none"> 1. Complete. 2. Currently in progress. 3. Will occur during project design and implementation. 			
<p>Reviewer's Assessment of State's Planned Response: The State's response is sufficient; however, if the State decides to enter into a contract with MTW, BerryDunn recommends that the ADS EP MO continue to closely monitor this risk to help ensure that it does not become an issue.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
2	High	High	High
<p>Source of Risk: BerryDunn, Project</p>			
<p>Risk Description: There is risk of delays in the project schedule due to limitations on the AOE resources.</p> <p>It is unclear how much time the AOE's resources are required to allocate for each phase of the project. Based on the immaturity of the Harvest solution and limited CNP subject matter expertise within the MTW project team, it is likely that the demand for the AOE's resources will be fairly significant throughout the entire implementation.</p> <p>The State confirmed that the CNP team is currently over-allocated addressing other priorities, such as responding to the COVID-19 pandemic, while supporting the day-to-day operations. If the AOE cannot provide the necessary State resources for key activities (e.g., design sessions, user acceptance testing), the project schedule could be negatively impacted and delay the overall implementation.</p>			
<p>State's Planned Risk Strategy: Mitigate</p>			
<p>State's Planned Risk Response:</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
2	High	High	High
<ol style="list-style-type: none"> 1. AOE has executed a contract amendment with Colyar to extend the current system through September 30, 2021, allowing for a more realistic implementation schedule. 2. The Program had initial approval (pre-COVID-19) to hire a Limited Service Position with available grant funds which would free up existing SMEs to help with implementation. The AOE has received approval (exemption from hiring freeze) from Secretary Young to hire for this position. The AOE is already aware of at least one qualified and interested candidate. 			
Timing of Risk Response: <ol style="list-style-type: none"> 1. Complete. 2. Currently in progress. 			
Reviewer's Assessment of State's Planned Response: The State's response is sufficient; however, if the State decides to enter into a contract with MTW, BerryDunn recommends that the ADS EPMO continue to closely monitor this risk to help ensure that it does not become an issue.			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
3	High	High	High
Source of Risk: BerryDunn, Project			
Risk Description: There is risk of project delays and unfulfilled obligations by MTW due to the lack of appropriate allocation of a project manager. MTW is only planning on allocating 20 percent of the project manager's time during critical project phases, such as design and testing. Given the immaturity of the Harvest solution, this initial implementation is a considerably large and complex project that should be managed accordingly. BerryDunn believes that only 20 percent of the MTW project manager's time during critical project phases may also require the ADS EPMO to play a larger role than currently planned. Without strong MTW project management, the project could experience difficulties with completing the required tasks on time and within the contractual terms and conditions.			
State's Planned Risk Strategy: Mitigate			
State's Planned Risk Response: The AOE will negotiate with the vendor to increase PM support to 90-100% of the PM's time during design and user acceptance phases. The AOE understands this may add additional cost to the contract for PM time and has targeted additional USDA funding and funds from canceled conferences (due to COVID-19) to allocate towards increased fees, if necessary.			
Timing of Risk Response: The AOE to begin negotiations with MTW the week of May 4, 2020.			
Reviewer's Assessment of State's Planned Response: The State's response and timing are acceptable.			

Risk #: 4	Risk Likelihood/Probability: Medium	Risk Impact: High	Overall Risk Rating: High
Source of Risk: BerryDunn			
<p>Risk Description: There is risk the AOE may not have a new solution before the contract with Colyar expires.</p> <p>In the RFP, the AOE asked vendors to propose a project schedule with a go-live date prior to September 30, 2020 (the Colyar contract expiration date). During stakeholder interviews, both the State and MTW agreed that the timeline in MTW's technical proposal is not realistic, especially given the delay in finalizing and executing the contract.</p> <p>While the State and MTW confirmed that they need to work together to revise the timeline before the execution of the contract, the actual implementation timeline is unknown at this time, presenting a risk of implementation extending beyond Colyar's contract expiration date.</p>			
State's Planned Risk Strategy: Mitigate			
<p>State's Planned Risk Response:</p> <ol style="list-style-type: none"> 1. AOE has executed a contract amendment with Colyar to extend the current system through September 30, 2021, allowing for a more realistic implementation schedule. 2. The Program had initial approval (pre-COVID-19) to hire a Limited Service Position with available grant funds which would free up existing SMEs to help with implementation. The AOE has received approval (exemption from hiring freeze) from Secretary Young to hire for this position. The AOE is already aware of at least one qualified and interested candidate. This will free up existing SMEs to spend more time on the project, helping to ensure implementation stays on track. 3. Vendor and AOE have discussed a phased approach to implementation, where existing system functionality will be implemented in phase I and enhancements will be covered in phase II. The IMS will be broken down into these two phases to help assure that necessary functionality to match existing functionality is done first. 			
<p>Timing of Risk Response:</p> <ol style="list-style-type: none"> 1. Completed. 2. Currently in progress. 3. Conceptual discussions have been held and the IMS planning will begin with contract negotiations the week of May 4, 2020. 			
<p>Reviewer's Assessment of State's Planned Response: This risk is reflective of a point-in-time (BerryDunn's stakeholder interviews) and portrays information that is potentially outdated; therefore, the State's planned response and timings are acceptable. BerryDunn suggests that strategic decisions regarding the IMS be made prior to contract execution to help ensure the MTW contract reflects an accurate scope, schedule, and cost.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
5	Medium	High	High
Source of Risk: BerryDunn, Project			
<p>Risk Description: There is risk that Vermont’s implementation of Harvest will not fully address the applicable federal and State security requirements.</p> <p>While conducting a stakeholder interview with ADS, the State’s security analyst expressed potential concerns regarding MTW’s approach to meeting the security requirements included in the RFP and the requirements in the State’s Attachment D: Information Technology System Implementation Terms and Conditions (which is required in all IT contracts). With an effort to streamline the process for resolving BerryDunn and ADS’ outstanding security questions, the State’s security analyst participated in the vendor interview conducted as part of this Independent Review. The discussion during the vendor interview did resolve some, but not all, of BerryDunn’s questions, so MTW provided written responses for inclusion in this Independent Review Report. Within the responses, MTW stated that it anticipates risks regarding the security requirements related to storing and managing PII.</p> <p>Based on the results of the vendor interview and BerryDunn’s assessment of how the proposed solution is aligned with the State’s expectations, it was identified that MTW may not fully understand all the federal and State security requirements.</p>			
State’s Planned Risk Strategy: Mitigate			
<p>State’s Planned Risk Response: The State will mitigate this risk by requiring the vendor to provide documentation, such as Incident Response plans and third-party assessments showing compliance with industry best practices. The State will also require a third-party penetration test to verify that the solution is secure. Should the vendor meet all the requirements of Attachment D in the contract, then the risk of security issues will be greatly reduced. The project will also generally increase the involvement of ADS Security staff to review and participate in the system development.</p>			
Timing of Risk Response: The AOE to begin negotiations with MTW the week of May 4, 2020.			
<p>Reviewer’s Assessment of State’s Planned Response: BerryDunn feels the State should strengthen its mitigation strategy by requiring MTW to include all the necessary test cases and scenarios to help ensure adherence to all applicable federal and State security requirements. This may result in the need for the ADS security division to play a larger role in the implementation than currently planned, in turn increasing the implementation costs.</p> <p>ADS should also consider using NuHarbor security consulting services to perform a third-party security assessment before the system goes live to help ensure security requirements are satisfied.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
6	Low	High	Medium
Source of Risk: BerryDunn			
<p>Risk Description: If Colyar does not agree to an extension of the current contract, the AOE is at risk of not having an IT system to administer their CNPs.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
6	Low	High	Medium
<p>While the AOE has obtained approval for extending the current contract, Colyar may not agree to continue providing the AOE the current system and/or support after September 30, 2020. In the absence of an IT system, the AOE would need to implement a manual, paper-based system until a new IT system is operational. Additional resources would be needed to help ensure the timely processing of applications and reimbursements in order for school food authorities and program sponsors to deliver services to Vermont's eligible participants.</p>			
<p>State's Planned Risk Strategy: Mitigate</p>			
<p>State's Planned Risk Response: Since this risk was identified, Colyar has signed a contract amendment to extend the current contract through September 30, 2021.</p>			
<p>Timing of Risk Response: Completed</p>			
<p>Reviewer's Assessment of State's Planned Response: This risk is reflective of a point-in-time (BerryDunn's stakeholder interviews) and portrays information that is outdated; therefore, the State's planned response and timing are acceptable.</p>			

Risk #:	Risk Likelihood/Probability:	Risk Impact:	Overall Risk Rating:
7	Low	High	Medium
<p>Source of Risk: BerryDunn, Project</p>			
<p>Risk Description: The extremely low implementation cost does not provide enough incentive for holding MTW accountable to deliver all the necessary design, development, and implementation services, presenting risk of project delays and unfulfilled obligations by MTW. MTW has proposed a payment schedule tied to milestones (referred to as deliverables in the document reviewed by BerryDunn), which is one approach to help ensure the vendor is making progress in achieving the agreed upon milestones. However, given the total implementation cost is less than \$100,000, the State does not have a way for holding MTW accountable for delivering a solution that meets all the federal and State requirements within the agreed upon timeline.</p>			
<p>State's Planned Risk Strategy: Mitigate</p>			
<p>State's Planned Risk Response: The Program is investigating the potential to add a Performance Bond to the contract. CNP has used these in previous contracts with food suppliers for the program. The Program is checking with AOE contracting and finance to determine feasibility and potential amount for the bond. ADS is also checking with procurement to see if these have been used in IT contracts. If deemed acceptable, the Program will incorporate this into contract negotiations.</p>			
<p>Timing of Risk Response: Currently in progress for background information. The Attorney General's Office (AGO) and Risk Management are reviewing the feasibility of requiring a Performance Bond for the MTW contract. Assumed inclusion into contract negotiations starting the week of May 4, 2020.</p>			

Risk #: 7	Risk Likelihood/Probability: Low	Risk Impact: High	Overall Risk Rating: Medium
<p>Reviewer's Assessment of State's Planned Response: The approach of requiring a performance bond for holding MTW accountable to delivering all the necessary DDI services is a sound approach to mitigating the risk.</p> <p>However, if a performance bond is not a viable option, the State may want to consider pursuing the option of withholding or reducing M&O costs (as a financial penalty) if system issues are identified and not resolved post go-live.</p>			