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# **Appendix I – Alternative Evaluation Framework**

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## Appendix I – Alternative Evaluation Framework

### Summary of Evaluation

The State requested that the TAAA Team conduct a secondary evaluation of the alternatives using an approach that would be less “comparative” in nature, while still using the criteria and weightings established by the CWS/CMS Management Committee<sup>1</sup>. Accordingly, the TAAA Team developed an alternative evaluation framework that emphasized the degree to which each alternative compares to the specific evaluation criteria, regardless of how the alternatives compare to one another. For example, for the criteria of cost, this evaluation model takes into account the variances in the Total Cost of Ownership (TCO) for each alternative and assigns corresponding points. Using this approach, the State is able to gain better insight into “how much” better or worse each alternative compares to the defined criteria. The benefits of the separate evaluation are:

- **Confirmed the Evaluation Results from the Comparative Evaluation Framework** – Alternative 3 was confirmed as the best alternative for the future SACWIS solution. Out of a total of 1000 points:
  - Alternative 3 received 867 points,
  - Alternative 2 received 646 points, and
  - Alternative 1 received 579 points.
  
- **Compared Alternatives Independently Against Criteria** – While the original evaluation framework incorporates the State’s criteria and priorities for selection of an alternative, this approach ranks each alternative against one another in terms of the capability of each alternative to meet those criteria. The alternative evaluation approach compares the alternatives to each criteria across a measurable spectrum:
  - 1 = Excellent
  - 2 = Above Average
  - 3 = Acceptable
  - 4 = Marginally Acceptable
  - 5 = Unacceptable

This approach provides greater sensitivity to “how well” or “how poorly” each alternative compared to each criteria and overall, independent of the performance of other alternatives.

- **Provides Objective Consideration of Alternative Costs** – Since the TCO analysis provides cost estimates for each alternative, this data can be used to provide an objective assessment of the cost variances between the alternatives that are not accounted for in the original evaluation framework.

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<sup>1</sup> Note: This evaluation approach is not discussed in the main body of the TAAA report and was conducted as a separate verification by the TAAA Team at the request of the State

Table 1 – CWS/CMS Alternative Evaluation Summary

Alternatives	Total Non-Cost Score	Total Cost Score	Raw Score
Alternative 1: Status Quo	383	196	579
Alternative 2: Evolve and Build	423	223	646
<b>Alternative 3: Replace</b>	<b>575</b>	<b>250</b>	<b>825</b>

## Evaluation Process

The evaluation process was similar to that established in the original evaluation, in that no changes were made to the criteria or priorities of the State. However, the TAAA Team conducted the separate evaluation based on independent judgment, our understanding of CWS/CMS needs and priorities, expert opinion. The table below provides an overview of the process, with key differences highlighted in italics.

Table 2 – Alternative Evaluation Process

Process	Description
Business Problem Identified and Decision Required	Federal, State and County stakeholders agree that a problem or decision is required concerning the future CWS/CMS automation
Gather and Evaluate Data	The TAAA Team conducted extensive data gathering and analysis, including the business, technical and financial data
Identify a Range of Alternative Solutions	The State defined the broad alternatives. The TAAA Team conducted extensive analysis of the alternatives, including development of alternative scenarios, roadmaps and TCO
Identify Criteria Against Which To Measure The Potential Solutions	The TAAA Team identified high-level business and technology drivers and requirements, which formed the basis for the definition of evaluation criteria. These criteria were validated in a series of workshops conducted with county and State stakeholders
Weight Criteria Categories To Represent Assessment Priorities	The TAAA Team conducted several workshops with county and State stakeholders and reached consensus on the weighting of the criteria categories (i.e., business, technical, risk, etc.)
Weight Individual Criteria In Order To Assign Actual Points Based on Each Alternatives Ability To Meet Each Criteria	The TAAA Team further decomposed the weightings of individual criteria (i.e., usability of system, scalability, etc.).
Assess Each Alternatives Ability To Meet the Defined Criteria Based on a Scale of 1-5, Where 1 = Unacceptable and 5 = Excellent	The TAAA Team used expert opinion to assess the capability of each alternative to meet the individual criteria, regardless of the performance of other alternatives to those criteria

Process	Description
Conduct a separate cost evaluation using the TCO of each alternative to assign points based on the weighting assigned to the cost criteria	The TAAA Team conducted a separate cost evaluation, similar in respects to the methods used by the State to evaluate costs in a competitive bid. For example, the low cost alternative received 100% of the cost points allowed, while higher cost alternatives received a decreasing number of cost points based on a simple ratio of Cost Points = Low Cost Alternative/Alternative X Cost
Create a Score For Each Alternative and Select Best Alternative	Following the allocation of cost and non-cost points (total of 1000 points available, select the alternative with the highest number of points

## Evaluation Categories and Criteria

As in the original evaluation framework, the criteria by which to measure potential solutions were developed and categorized within five major areas: Business, Technical, Total Cost of Ownership, Time, and Risk. The criteria define the critical functional and cost considerations that are used to differentiate the viability of the three alternatives to meet the currently established business needs. Please refer to Section 8 for a full description and definition of evaluation categories and criteria.

## Scoring Process

To ensure the best alternative was selected, using a measurable and consistent approach, the scoring process was performed in three phases.

- **Screening Process:** Each alternative was measured against the screening criteria. If all the screening criteria were met, the alternative passed and moved into the next scoring phase. If any of the screening criteria was not met, the alternative failed but was still scored. ***Each of the three alternatives met the screening criteria.***
- **Scoring Process:**
  - For the non-cost evaluation, each of the alternatives was compared to each criterion and points were allocated based on the weighting of each criteria and how well each alternative compared to the criteria. The total points available for the non-cost evaluation were 750 points (out of a 1000 total points). The table below illustrates the criteria and criteria weightings used for this analysis. As depicted, for each criteria category (i.e., business, technical, etc.), the criteria were prioritized by level of importance from high to low (with 1 being the highest priority and 3 being the lowest priority). Based on the criteria importance, the overall criterion weight was derived in order to establish scoring of alternatives and point allocations.

Table 3 – Non-Cost Criteria and Weights

	Category Weight (%)	Criteria Importance	Category Criteria Weight	Overall Criterion Weight (%)
<b>Business</b>	20%			
Accommodate missing SACWIS functionality		1	15.79%	3.16%
Accommodate additional program functions		1	15.79%	3.16%
Support outcome-based operations		1	15.79%	3.16%
Support Child Welfare Program strategy		1	15.79%	3.16%
Usability of the system on each architecture		1	15.79%	3.16%
Ability to enable mobility and remote system access		2	10.53%	2.11%
Ability to support business operations		2	10.53%	2.11%
			100.00%	
<b>Technical</b>	20%			
Serve as a single system of record		1	13.64%	2.73%
Function as a single integrated system		1	13.64%	2.73%
Be easily scaled to accommodate user, functionality, or system growth		3	4.55%	0.91%
Be easily managed and maintained (simplicity)		2	9.09%	1.82%
Provide support for core and non-core architecture		2	9.09%	1.82%
Provide flexibility and extensibility to accommodate changing needs		1	13.64%	2.73%
Provide architectural openness, such as non-proprietary frameworks and code		1	13.64%	2.73%
Easily integrate and interface via standardized means		2	9.09%	1.82%
Deliver new functionality (changes and enhancements) in a timely manner		1	13.64%	2.73%
			100.00%	
<b>Time</b>	15%			
The time to total benefit realization		2	50.00%	7.50%
The time to incremental delivery of benefits/functionality.		2	50.00%	7.50%
			100.00%	
<b>Risks</b>	20%			
Financial		1	23.08%	4.62%
Technical		2	15.38%	3.08%
Operational		2	15.38%	3.08%
Competitive procurement		1	23.08%	4.62%
Schedule		3	7.69%	1.54%
Implementation.		2	15.38%	3.08%
			100.00%	
<b>Total</b>	<b>75%</b>			<b>75%</b>

- For the cost evaluation, the TCO for each alternative was utilized to develop a ratio of alternative costs that were then used to allocate costs. The total points available for the cost evaluation were 250 points (out of a 1,000 total points). The cost calculations were structure according to the following table:

**Table 4 – Cost Criteria and Calculations**

Alternative	Alternative Cost	Cost Component Weighting	Component Calculation	Cost Points
1	\$1,487,990,241	25%	Alt 3 / Alt 1	Component Calculation X 250
2	\$1,306,741,661	25%	Alt 3 / Alt 2	Component Calculation X 250
3	\$1,166,562,861	25%	Alt 3 / Alt 3	Component Calculation X 250

### Scoring Results

As a result of the alternate evaluation process, Alternative 3 was confirmed as the best alternative for the future SACWIS solution. Out of a total of 1000 points:

- Alternative 3 received 825 points,
- Alternative 2 received 619 points, and
- Alternative 1 received 576 points.

The sections that follow document the results of the screening and scoring process that was applied.

### Screening Results

Of the evaluation criteria defined, several of these criteria were designated as screening criteria, that is the criteria “must be met or the alternative would not be selected”. These screening criteria were defined as pass / fail criteria that the alternative must meet in order to be considered viable. In some cases, screening criteria were also included as evaluation criteria in order to determine “how well” the alternatives performed against the criteria. The screening criteria are listed below:

**Table 5 – Screening Criteria**

Criteria	Alt 1	Alt 2	Alt 3
Ability to accommodate Adoptions	✓	✓	✓
Ability to accommodate Independent Living Program (ILP)	✓	✓	✓
Ability to generate reports of outcome data	✓	✓	✓
Ability to track cases using a variety of data elements	✓	✓	✓

Criteria	Alt 1	Alt 2	Alt 3
User Interface (help screens, user prompts, system navigation)	✓	✓	✓
Work flow	✓	✓	✓
Ability to provide access to data and simultaneous ensure the adequate security and confidentiality of the data	✓	✓	✓
Ability to store pictures	✓	✓	✓
Ability to provide remote access	✓	✓	✓
Ability to support PDA's and other mobile devices	✓	✓	✓
Enables County Workflow Flexibility	✓	✓	✓
Supports Common Program Practice	✓	✓	✓
Scalability	✓	✓	✓

### Scoring Results

For the non-cost evaluation the alternatives were compared to each criteria and rated in terms of “how well” each alternative met the specific criteria. The table below provides a visual representation of “how well” each alternative met the defined criteria, where 1 is “excellent” and 5 is “unacceptable”. Clearly, Alternative 3 performed the best against the criteria.

**Table 6 – Non-Cost Scoring Evaluation**

Scoring Description	Score	Visual
Excellent - This score represents an alternative that is optimal	1	●
Above Average	2	◐
Acceptable - This alternative supports the stated requirement	3	◑
Marginally Acceptable	4	◒
Unacceptable - The alternative will not - does not support this requirement at all.	5	○

Table 7 – Non-Cost Scoring Evaluation

Business	Alt 1	Alt 2	Alt 3
Accommodate missing SACMS functionality	●	●	●
Accommodate additional program functions	●	●	●
Support outcome-based operations	●	●	●
Support Child Welfare Program strategy	●	●	●
Usability of the system on each architecture	●	●	●
Ability to enable mobility and remote system access	●	●	●
Ability to support business operations	●	●	●
Technical			
Serve as a single system of record	●	●	●
Function as a single integrated system	●	●	●
Be easily scaled to accommodate user, functionality, or system growth	●	●	●
Be easily managed and maintained (simplicity)	●	○	●
Provide support for core and non-core architecture	●	●	●
Provide flexibility and extensibility to accommodate changing needs	●	●	●
Provide architectural openness, such as non-proprietary frameworks and code	○	●	●
Easily integrate and interface via standardized means	●	●	●
Deliver new functionality (changes and enhancements) in a timely manner	●	●	●
Time			
The time to total benefit realization	●	●	●
The time to incremental delivery of benefits/functionality	●	●	●
Risks			
Financial	●	●	●
Technical	●	●	●
Operational	●	●	●
Competitive procurement	○	●	●
Schedule	●	●	●
Implementation	●	●	●

The tables below provide the detailed assessment of each alternative against the specified criteria using the same scoring criteria on a scale of 1-5. As described in Section 1.2, each criterion was weighted based on the TAAA Team's understanding of State priorities, then normalized as a percentage of points associated with both category weight and criteria importance to arrive at a point score for each alternative, both at the individual criterion and in total for each alternative.

Table 8 – Alternative 1 Non-Cost Evaluation

			Alternative 1		
	Category Weight (%)	Criteria Importance	Alternative Score	Percentage Normalization Factor	Points
<b>Business</b>	20%				
Accommodate missing SACWIS functionality		1	3	5.00	15.79
Accommodate additional program functions		1	3	5.00	15.79
Support outcome-based operations		1	3	5.00	15.79
Support Child Welfare Program strategy		1	4	2.50	7.89
Usability of the system on each architecture		1	4	2.50	7.89
Ability to enable mobility and remote system access		2	3	5.00	10.53
Ability to support business operations		2	3	5.00	10.53
			Subtotal		84.21
<b>Technical</b>	20%				
Serve as a single system of record		1	3	5.00	13.64
Function as a single integrated system		1	1	10.00	27.27
Be easily scaled to accommodate user, functionality, or system growth		3	2	7.50	6.82
Be easily managed and maintained (simplicity)		2	4	2.50	4.55
Provide support for core and non-core architecture		2	4	2.50	4.55
Provide flexibility and extensibility to accommodate changing needs		1	3	5.00	13.64
Provide architectural openness, such as non-proprietary frameworks and code		1	5	0.00	0.00
Easily integrate and interface via standardized means		2	4	2.50	4.55
Deliver new functionality (changes and enhancements) in a timely manner		1	3	5.00	13.64
			Subtotal		88.64
<b>Time</b>	15%				
The time to total benefit realization		2	3	5.00	37.50
The time to incremental delivery of benefits/functionality.		2	3	5.00	37.50
			Subtotal		75.00
<b>Risks</b>	20%				
Financial		1	2	7.50	34.62
Technical		2	2	7.50	23.08
Operational		2	1	10.00	30.77
Competitive procurement		1	5	0.00	0.00
Schedule		3	1	10.00	15.38
Implementation.		2	1	10.00	30.77
			Subtotal		134.62
<b>Total</b>	<b>75%</b>		<b>Grand Total</b>		<b>382.46</b>

Table 9 – Alternative 2 Non-Cost Evaluation

	Category Weight (%)	Criteria Importance	Alternative Score	Percentage Normalization Factor	Points
<b>Business</b>	20%				
Accommodate missing SACWIS functionality		1	2	7.50	23.68
Accommodate additional program functions		1	2	7.50	23.68
Support outcome-based operations		1	2	7.50	23.68
Support Child Welfare Program strategy		1	2	7.50	23.68
Usability of the system on each architecture		1	3	5.00	15.79
Ability to enable mobility and remote system access		2	2	7.50	15.79
Ability to support business operations		2	2	7.50	15.79
			Subtotal		142.11
<b>Technical</b>	20%				
Serve as a single system of record		1	2	7.50	20.45
Function as a single integrated system		1	3	5.00	13.64
Be easily scaled to accommodate user, functionality, or system growth		3	2	7.50	6.82
Be easily managed and maintained (simplicity)		2	5	0.00	0.00
Provide support for core and non-core architecture		2	2	7.50	13.64
Provide flexibility and extensibility to accommodate changing needs		1	2	7.50	20.45
Provide architectural openness, such as non-proprietary frameworks and code		1	2	7.50	20.45
Easily integrate and interface via standardized means		2	3	5.00	9.09
Deliver new functionality (changes and enhancements) in a timely manner		1	2	7.50	20.45
			Subtotal		125.00
<b>Time</b>	15%				
The time to total benefit realization		2	4	2.50	18.75
The time to incremental delivery of benefits/functionality.		2	2	7.50	56.25
			Subtotal		75.00
<b>Risks</b>	20%				
Financial		1	3	5.00	23.08
Technical		2	4	2.50	7.69
Operational		2	4	2.50	7.69
Competitive procurement		1	3	5.00	23.08
Schedule		3	2	7.50	11.54
Implementation.		2	4	2.50	7.69
			Subtotal		80.77
<b>Total</b>	<b>75%</b>		<b>Grand Total</b>		<b>422.87</b>

Table 10 – Alternative 3 Non-Cost Evaluation

	Category Weight (%)	Criteria Importance	Alternative Score	Percentage Normalization Factor	Points
<b>Business</b>	20%				
Accommodate missing SACWIS functionality		1	1	10.00	31.58
Accommodate additional program functions		1	2	7.50	23.68
Support outcome-based operations		1	2	7.50	23.68
Support Child Welfare Program strategy		1	2	7.50	23.68
Usability of the system on each architecture		1	1	10.00	31.58
Ability to enable mobility and remote system access		2	1	10.00	21.05
Ability to support business operations		2	2	7.50	15.79
			Subtotal		171.05
<b>Technical</b>	20%				
Serve as a single system of record		1	1	10.00	27.27
Function as a single integrated system		1	1	10.00	27.27
Be easily scaled to accommodate user, functionality, or system growth		3	2	7.50	6.82
Be easily managed and maintained (simplicity)		2	2	7.50	13.64
Provide support for core and non-core architecture		2	2	7.50	13.64
Provide flexibility and extensibility to accommodate changing needs		1	1	10.00	27.27
Provide architectural openness, such as non-proprietary frameworks and code		1	1	10.00	27.27
Easily integrate and interface via standardized means		2	2	7.50	13.64
Deliver new functionality (changes and enhancements) in a timely manner		1	1	10.00	27.27
			Subtotal		184.09
<b>Time</b>	15%				
The time to total benefit realization		2	1	10.00	75.00
The time to incremental delivery of benefits/functionality.		2	3	5.00	37.50
			Subtotal		112.50
<b>Risks</b>	20%				
Financial		1	4	2.50	11.54
Technical		2	3	5.00	15.38
Operational		2	3	5.00	15.38
Competitive procurement		1	1	10.00	46.15
Schedule		3	4	2.50	3.85
Implementation.		2	3	5.00	15.38
			Subtotal		107.69
<b>Total</b>	<b>75%</b>		<b>Grand Total</b>		<b>575.34</b>

For the cost evaluation, a straightforward calculation based on Total Cost of Ownership (TCO) for each alternative was utilized to develop a ratio of alternative costs that were then used to allocate costs.

**Table 11 – Cost Criteria and Calculations**

Alternative	Alternative Cost	Cost Component Weighting	Component Calculation	Cost Points
1	\$1,487,990,241	25%	\$1,166,562,861 / \$1,487,990,241	<b>196</b>
2	\$1,306,741,661	25%	\$1,166,562,861 / \$1,306,741,661	<b>223</b>
3	\$1,166,562,861	25%	\$1,166,562,861 / \$1,166,562,861	<b>250</b>

As a result of both the non-cost and cost evaluation of the alternatives available to the State, Alternative 3 was confirmed as the best overall solution. The following table summarizes the result of this evaluation:

**Table 12 – Evaluation Summary**

Alternatives	Total Non-Cost Score	Total Cost Score	Raw Score
Alternative 1: Status Quo	383	196	579
Alternative 2: Evolve and Build	423	223	646
<b>Alternative 3: Replace</b>	<b>575</b>	<b>250</b>	<b>825</b>