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STATE OF RHODE ISLAND

DEPARTMENT OF HUMAN SERVICES
OFFICE OF CHILD SUPPORT SERVICES

INRHODES CSE REPLACEMENT FEASIBILITY STUDY

RECOMMENDATIONS REPORT

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Revision History

REV.	DATE	SUMMARY OF CHANGES
1.0	12/11/2015	Initial Deliverable
1.1	12/17/2015	Semi-final version for OCSS approval (after incorporating feedback from and following the Walk-through session held on 12/15/2015)
1.2	1/28/2016	Final version for OCSS approval (after incorporating additional IES vendor costs provided by the State/Deloitte Consulting)

Agreements and Sign-off

This document (version 1.2 of the Feasibility Study Recommendations Report) has been reviewed by the OCCS team and the undersigned signature represents OCSS' agreement with its contents.

Name	Signature / Date
For RI:	
• Sharon Santilli, Associate Director DHS-OCSS	
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For SymbioSys	
• Darrell Gates, Project Manager	
• Arvind Ranade, Contract Manager	

1 EXECUTIVE SUMMARY

1.1 RECOMMENDATIONS

After a careful study of the current operating environment and automation support at OCSS; soliciting and articulating OCSS's current and future business needs; and conducting an in-depth analysis of all available options, including Cost-Benefits, the Feasibility Study Team recommends that:

1. The replacement of the CSE functionality of InRHODES should be initiated at the earliest as continuing to maintain the status quo is technically, functionally, and economically untenable.
2. A new CSE system should be built ground up to the exacting specifications of the State and fully leveraging the reusable assets of the State's new IES system RI Bridges. This option is referred to as '*Custom Build*'[1] . *'Custom Build'* is recommended as the preferred replacement option because it would provide OCSS with the best functional fit, maximize automation, and would fully align with the State's stated objective of leveraging the reusable assets of its new Integrated Eligibility System (IES) – RI Bridges.
3. OCSS assembles and assigns to this modernization project a team of seasoned OCSS personnel with extensive knowledge of the State's IV-D Program to ensure that the new solution fully encapsulates OCSS's vast institutional business knowledge.
4. OCSS conducts a thorough planning exercise, and puts in place a proper Project Governance Structure before the project initiation.

The remainder of this document summarizes the methodology followed, aspects examined, and scoring techniques. It also expands on the recommendations presented above.

Additionally, this report is supported by the following detailed reports:

1. Alternatives Selection Report
2. Feasibility and Alternatives Analysis Report
3. Cost-Benefit Analysis Report

[1] *Custom Build* – a new system built ground up to the exacting specifications of the State and fully leverages the reusable assets of the State's new IES system RI Bridges

1.2 METHODOLOGY

The key goal of the InRHODES CSE Replacement Feasibility Study is to recommend the most feasible and effective alternative, which will provide continued high quality automation support to Rhode Island's Child Support Enforcement Program.

The methodology followed in executing this project comprised of the following steps:

1. Identify the business requirements which must be met by the *future CSE replacement solution*. A total of 1,359 business requirements were identified— 1,246 functional requirements, and 113 technical requirements
2. Perform a macro level analysis of all plausible alternatives to select the two (2) most viable alternatives, in addition to the status quo, which should be examined in greater detail
3. Perform a detailed Feasibility and Alternatives Analysis—including: Gap, SWOT and Risk Analysis—for each of the three (3) identified alternatives; and develop time and effort estimates to bridge these gaps
4. Perform a detailed Cost-Benefit Analysis for each of the three alternatives
5. Develop weighted criteria to select an alternative, which best meets the objectives of *future CSE replacement solution*, and provides the best value
6. Draft the Implementation Advanced Planning Document (IAPD) for the implementation of the *future CSE replacement solution*
7. Draft the RFP and Evaluation Criteria for the procurement of services to implement the *future CSE replacement solution*
8. Conduct project close-out activities

1.3 BUSINESS DRIVERS AND OBJECTIVES

Making smart use of technology and maximizing automation, to ensure efficient and effective delivery of Child Support Services, are the primary business drivers for the CSE modernization effort in Rhode Island.

Through these efforts, the State of Rhode Island seeks to acquire:

1. An integrated CSE solution that best leverages the re-usable technology assets, and investments, which have been made on behalf of other human services programs
2. A contemporary CSE solution that provides the best value at the lowest cost
3. An intelligent CSE solution that maximizes automation, so that the staff can focus on value added activities
4. A user-friendly CSE solution that enables easy access to services, and promotes the use of self service
5. A consolidated CSE solution that creates a single record/account for a given customer, across all human services programs
6. An innovative CSE solution that takes advantage of the best practices in the industry and employs the best concepts, technologies, tools and solutions
7. An effective CSE solution that enables the OCSS to achieve and exceed federal performance standards and receive the highest federal performance incentive dollars.

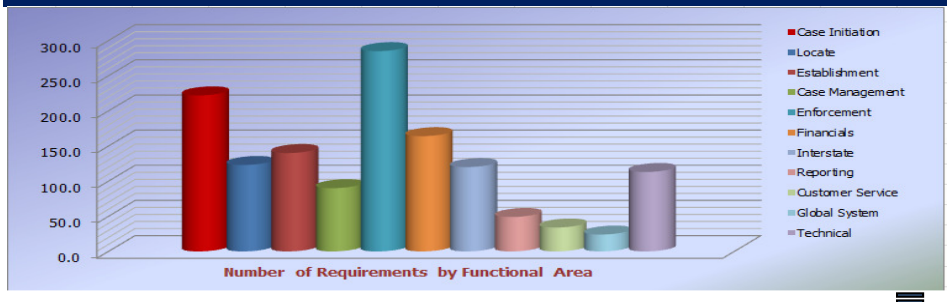
1.4 SUMMARY OF FINDINGS

The recommendations presented in this report are grounded in the findings of the Feasibility Study. Presented below is a synopsis of those findings:

Step 1: Articulate Functional & Technical Requirements that must be met

One thousand three hundred fifty-nine (1,359) Business Requirements were identified under eight (8) core functional categories, two (2) general functional categories, and one (1) technical category.

1,359 Business Requirements identified → *1,246 functional* & *113 Technical*



Step 2: Determine the three most viable alternatives

In addition to the mandated Status Quo, the two (2) most viable *future CSE replacement alternatives* were selected through: (a) research of other state CSE systems; (b) macro level Strength, Weakness, Risk Analyses; and (c) facilitated stakeholder discussions and consensus.

Stakeholder Consensus decision	
Option 1	Maintain Status Quo (mandatory)
Option 2	Transfer and Adapt NJKiDS
Option 3	Custom-build a New System

Step 3: Perform Alternatives Analysis

The following is a summary of the findings of the Alternatives Analysis.

Alternative	Functional Gap Score	Technical Gap Score	Business Fit	Implementation Timeframe	Cost of Dev. & Implementation	Risk Score
Status Quo	3.3 *(medium gap)*	2.8 *(medium gap)*	Fair	NA	NA	248
Adapt NJKiDS	1.8 *(small gap)*	1.3 *(very small gap)*	Good	41 Months	$46,790,310	234
Custom Build	None	None	Excellent	40 months	$47,306,747	216

The summary above depicts the ability of each alternative to meet the functional, technical, and business needs of the OCSS; the level of risk connected to the alternative; and, the cost (confined exclusively to contractor services for solution design, development, and implementation) and number of months it is expected to take to implement the alternative.

From the summary above, the Custom Build alternative is the only alternative that can fully meet all of the functional and technical requirements desired by the OCSS. The Custom Build alternative is also the least risky of the alternatives evaluated, and it provides the OCSS with the best overall business fit. Although the cost of the development of Custom Build alternative is

slightly higher than the Adapt NJKiDS alternative, the Custom Build alternative has a slightly shorter implementation timeframe. The differences between these two (2) alternatives in regard to DDI costs and implementation timeframe are so insignificant that, for all practical purposes, they are equivalent in these two (2) areas.

Step 4: Perform Cost-Benefit Analysis

The following is a summary of findings of the Cost-Benefit Analysis.

Alternative	Present Value of Cumulative Benefits	Present Value of Cumulative Costs	Present Value of Net Benefits	Benefit-to-Cost Ratio	Breakeven Year
Status Quo	NA	$ 16,904,432	NA	NA	NA
Adapt NJKiDS	$100,382,785	$ 65,598,616	$ 34,784,169	1.696	FFY2023
Custom Build	$100,382,785	$ 59,184,801	$ 41,197,984	1.530	FFY2023

The costs and benefits depicted in the above summary cover all non-recurring and recurring costs associated with the alternative over a twelve (12) year period of time. The costs and the benefits of each alternative are expressed in terms of their "present value"[2]. This allows the conversion of benefits and costs occurring at different times in the future to their current (i.e. present) value, reflecting the time-value of money. Present value calculations equalize the comparison of alternatives when expenses are distributed unequally over time.

From the summary above, the Custom Build alternative provides a better return on investment and results in lower cumulative costs and higher net benefits. While each alternative breaks even in FFY 2023, the Custom Build alternative results in an $8.5 million higher net benefit in FFY 2023 than the Adapt NJKiDS alternative.

[2] Source: Department of Health and Human Services/Administration for Children and *Families Feasibility, Alternatives, and Cost/Benefit Analysis Guide*- July 1993

1.5 Evaluation Criteria and the Best Scoring Alternative

Members of the Management Steering Committee, in consultation with the Feasibility Study Team, proposed the following set of criteria, and their respective % Rank (weightage), for evaluation of the 3 most viable alternatives. The criteria and % rank were subsequently submitted to the federal OCSE for review and approval. The OCSE promptly reviewed and approved the criteria and % rank shown below:

Functional Fit	Technical Fit	Risk Score	Total Cost	Return on Investment	Implementation Time Frame
30%	10%	25%	25%	5%	5%

The methodology and scoring approach used to evaluate each alternative can be found in Section 3.2 of this report.

The resultant *Rank Scores* (after applying the above criteria to each alternative) are as presented below:

	Functional (30%)			Technical (10%)			Cost (25%)		Risk (25%)		ROI (5%)		Time (5%)		Total Score & Rank	
	Gap Score	Gap %	Rank Score	Gap Score	Gap %	Rank Score	Present value of Cumulative Costs	Rank Score	Risk Score	Rank Score	ROI	Rank Score	Impl Time	Rank Score	Cumulative Rank Score	Overall Rank
Status Quo	3.3	58	2.61	2.8	44	1.14	$16,904,432	25.00	248	21.77	0.00	0.00	-	-	**50.52**	**3**
Adapt NJKiDS	1.8	17	8.82	1.3	9.5	5.26	$65,598,616	6.44	234	23.08	1.53	4.51	41	4.88	**52.99**	**2**
Custom Build	1	5	30.00	1	5	10.00	$59,184,801	7.14	216	25.00	1.696	5.00	40	5.00	**82.14**	**1**

Custom Build offers the best overall score and ranking of the viable alternatives.

Note - The Gap Score shown above is arrived at by using the following Gap Assessment Scale,

Gap 5	*Very large Gap*	The alternative satisfies 10% or less of this requirement.
Gap 4	*Large Gap*	The alternative satisfies about 25% of this requirement.
Gap 3	*Medium Gap*	The alternative satisfies about 50% of this requirement.
Gap 2	*Small Gap*	The alternative satisfies about 80% of this requirement.
Gap 1	*Almost no Gap*	The alternative provides 95% or more of this requirement.

2 OVERVIEW OF FINDINGS

For over 25 years, the automation support to State of Rhode Island's IV-D Program has been provided by the State's legacy eligibility system InRHODES. In addition to Child Support Case Management, InRHODES supports the State's administration of Medicaid, and five (5) other Human Services Programs—SNAP, TANF (RI Works), Child Care, General Public Assistance, and State Supplemental Payments.

In March 2010, the passage of the Affordable Care Act and the Health Care and Education Reconciliation Act (together referred to as ACA), provided the states with the opportunity to replace existing eligibility systems with new systems that supported the ACA requirements.

Rhode Island swiftly moved to avail of this opportunity. As a part of its Unified Health Infrastructure Project (UHIP), the State embarked on building the Health Insurance Exchange (HIX), and **RI Bridges**—the State's new Integrated Eligibility System (IES).

The State is pursuing an ambitious plan to implement UHIP technology program in two phases:

PHASE 1 – By October 2013, RI Bridges was implemented with core HIX functionalities, and MAGI based Medicaid eligibility.

PHASE 2 – By July 2016, RI Bridges will include functionalities for non MAGI based Medicaid, and all other Human Services Programs (excluding Child Support).

Implementation of UHIP began in January 2012. Phase 1 was competed as planned. Phase 2 is currently underway.

This situation, however, presents one significant challenge for the State – Once the functionalities for Medicaid, and all other Human Services Programs, are integrated into the new RI Bridges system, Child Support will be the only remaining Program still using InRHODES. As a result, it will become difficult and expensive for the State to continue maintaining the InRHODES legacy system and the mainframe.

The State has, therefore, decided to explore its replacement options for the Child Support Enforcement components of InRHODES, and instituted a full Feasibility Study. The primary objective of the Feasibility Study is to evaluate and select an alternative that will ensure continued, uninterrupted and steadily increasing levels of technology support to Rhode Island's Child Support program, over the next decade and beyond.

The recommendations presented in this report are grounded in the findings of the *Feasibility Study*. The following subsections present: (1) a synopsis of the analysis performed for each *Feasibility Study* component and task; and (2) more details on the various steps followed by the FS team.

2.1 STEP 1: REQUIREMENTS DEFINITION

The InRHODES CSE Feasibility Study & Alternatives Analysis relies on a clear and consistent understanding of the business requirements that any *future CSE replacement solution* must meet.

A comprehensive set of Business Requirements for the *future CSE replacement solution* has been developed through studying available documentation, attending functional presentations demonstrating the use of InRHODES, soliciting feedback from users of InRHODES through surveys, and holding information-gathering and brainstorming sessions with OCSS stakeholder teams.

Information gathering and brainstorming sessions were conducted with individuals who perform or oversee the activities in each of the 7 distinct functional areas, and who are intimately familiar with the activities associated with the four (4) common functional areas.

Observation sessions were also held with a number of caseworkers in each of the functional units to gain a better understanding of how these individuals use InRHODES to accomplish their daily duties. These sessions gathered information on the shortcomings of the current system, and the additional functions and features the users would like to see in the new replacement solution.

Special information gathering sessions were also conducted with OCSS Attorneys, who represent the OCSS in establishment and enforcement matters before the R.I. Family Court. Another special information gathering session was held with representatives from the RI Department of the Treasury and the RI Department of Accounts and Control. These individuals offered constructive criticism regarding the recurring financial reconciliation issues encountered when interfacing with the InRHODES system.

Area	# Requirements
Case Initiation	222
Locate	123
Establishment	140
Case Management	90
Enforcement	285
Financial	159
Interstate	120
Reporting	49
Customer Service	34
Global	24
Technical and Security	113
Total	**1,359**

The resultant 'to be' business requirements set comprises of the 1,359 functional and technical requirements that must be met by any *future CSE replacement solution*. Functional Requirements were compiled for each core functional area.

Individual business requirements are associated with representative business rules (where relevant) that could change over time.

These requirements formed the basis for an objective assessment of: (a) the gaps that each viable alternative must bridge; and (b) the effort required to bridge the gaps and implement the solution offered by each alternative. In addition, the business requirements will be included in the *Procurement RFP* for implementation of the *future CSE replacement solution*.

2.2 STEP 2: SELECT THE THREE MOST VIABLE ALTERNATIVES

A broad spectrum of alternatives, both existing and theoretical, could potentially help meet the business objectives of the CSE replacement initiative. The Federal Office of Child Support Enforcement's (OCSE) Feasibility Study *guidelines* direct the study to narrow this universe to 3 or 4 of the potentially most viable and realistic alternatives. The federal guidelines further stipulate that maintaining status quo (*Status Quo*), and transferring another CSE system (*Transfer System*), must be included in this select group of the 3 or 4 most viable and realistic alternatives.

Based upon a review of the modernization approaches adopted by other states, as well as that of the modernization strategies adopted by other businesses within RI DHS, the study team shortlisted the following alternatives that could potentially help meet OCSS business objectives:

1. Do Nothing (Maintain Status Quo).
2. Replace InRHODES CSE with a
    a. Transfer System: *Adapt a suitable CSE system from another state*
    b. New Custom-built Solution
    c. COTS: *Implement configured Framework/ERP Solution*
    d. Hybrid Solution: *Bring together best-of-the-breed components from other state systems to create a new cohesive CSE solution*
3. Migrate existing InRHODES CSE system to a new platform
4. Extend the State's new IES (RI Bridges) to cover CSE functionality

The process of selection of the two most viable alternatives, namely, Transfer System and Custom Build, is described in more details in a separate report titled 'Alternatives Selection Report'. A summary of this process is presented in section 2.2.1 and 2.2.2 below.

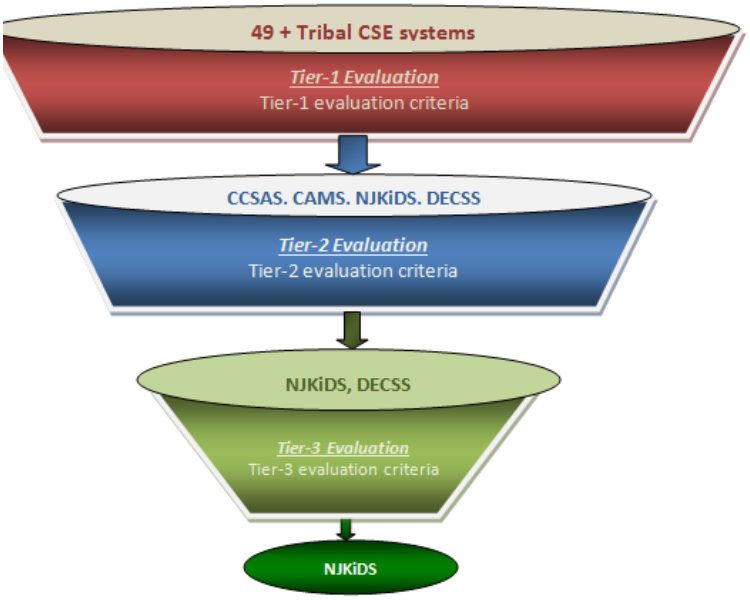
2.2.1 Selection of Transfer System

There are about 50 Child Support Enforcement (CSE) systems (49 state/territory/district systems plus the Model Tribal System) which qualify as potential transfer systems.

Since performing a detailed evaluation of all of these systems is impractical, the RI FS team narrowed this universe of potential transfer systems by applying a set of apposite criteria in three tiers to identify the most viable potential transfer system.

The 3-tier filtering system was put to use as follows:

- A set of criteria was defined for each of the three evaluation tiers.
- The criteria defined for each evaluation tier identified the 'Must Have' system characteristics or attributes that a CSE system must have in order for it to qualify for the next tier.
- The Tier-3 evaluation of led to the selection of the transfer system.



The three-tier filtration and selection process was carried out as follows:

Tier 1 Criteria & Selection

a) *Certification*: The system must be FSA88 and PRWORA Certified.
b) *Technology Platform*: The system is either based on a contemporary technology platform and toolset, or has undergone major technology upgrade - i.e., moved to a contemporary technology platform and toolset within the last 3 to 5 years.

The following four state systems, and the model Tribal Child Support Enforcement system, met Tier 1 criteria, and were selected for Tier 2 evaluation:

1. California-CCSAS
2. Delaware – DECSS
3. Florida – CAMS
4. New Jersey – NJKiDS
5. Model Tribal System –MTCSE

Tier 2 Criteria & Selection

a) *Capacity*: The system must currently be supporting a case load of between 40,000 to 400,000 cases (approximately 80% to 800% of RI's current active case load).

Rationale ~ the system, at the minimum, must be capable of supporting RI's current and potential future total caseload (active and inactive/closed cases) in order to effectively support business operations. At the other end of the spectrum, the system also should not be designed and built to handle very large caseload spread across wide geographical area—this avoids having to deal with complex structures and high costs of maintenance.

b) *Technology Platform Support*: The system must be built on a widely supported and generic technology platform.

Rationale ~ from a long-term maintenance and resource availability/cost perspective, it is greatly advantageous if the system is built on widely supported generic technology platforms, rather than proprietary platforms or frameworks.

The following two state systems met Tier 2 criteria and hence were selected for Tier 3 evaluation process:

1. Delaware – DECSS
2. New Jersey – NJKiDS

At this stage, the following three (3) vendors were invited to present their solution(s), in an all-day session attended by all OCSS stakeholders.

1. Protech Solutions, Inc. (NJKiDS)
2. Xerox (DECSS)
3. Deloitte Consulting (Next Gen) – Not a Transfer System candidate

Tier 3 Criteria & Selection

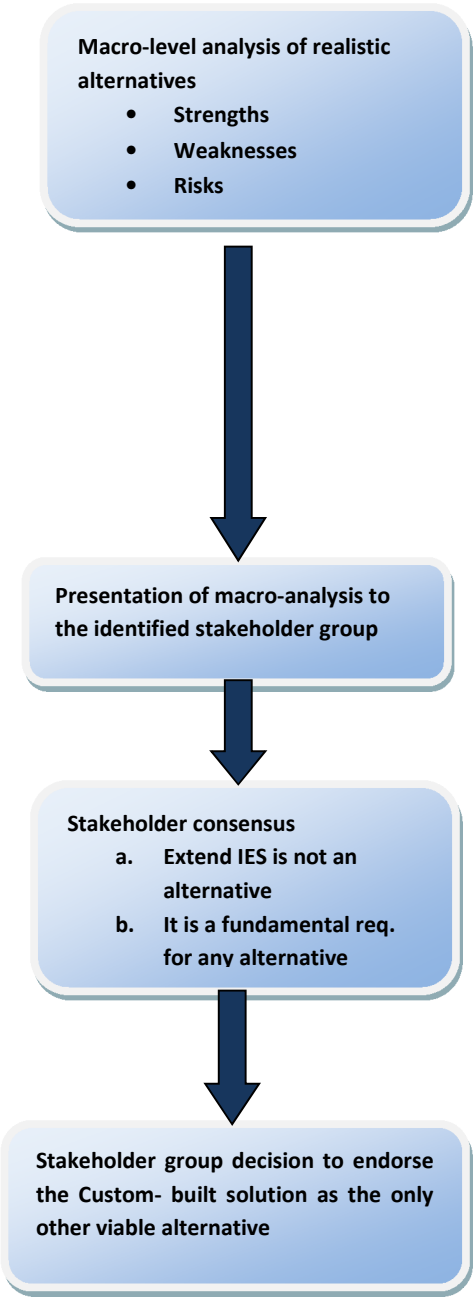
a) *Tight Integration with the Court System.* The RI IV-D program follows a highly judicial process, and hence a tight integration of the CSE system with the RI Family Court System is critical for OCSS operations.

b) *Availability of Performance-driven tools* to aid knowledge workers and the management alike to improve productivity and gain efficiencies, and to improve the overall program performance. Given the severity of the human resource constraints within OCSS, it is imperative for the RI IV-D Program to avail itself of performance-driven productivity (automation) tools.

After a careful reading of NJ's and DE's responses to the OCSS questionnaire, follow-up telephonic discussions, and the information gathered during the vendor presentations, the RI stakeholders reached a consensus that although DECSS (DE) is an excellent solution developed using newer technologies, NJKiDS (NJ) offered more solid integration with the Family Court system, and offered superior Business Intelligence (BI)/productivity tools/ Dashboards. NJKiDS also offered a greater potential to leverage the State's existing IES technology investments.

As a result, the InRHODES CSE FS team selected New Jersey's **NJKiDS** as the most suitable transfer system for further evaluation during the downstream Alternatives Analysis phase.

2.2.2 Selection of other Alternatives



- Macro-level analysis was performed to identify the strengths, weaknesses, and risks associated with each of the realistic alternatives *(other than Status-quo and Transfer System)* enumerated earlier in this Section.
- To recap, these alternatives are:

Replace InRHODES CSE with	a) New custom-built solution b) COTS Framework or ERP solution c) Hybrid Solution
Migrate InRHODES CSE	Migrate the current CSE components of InRHODES system to a modern contemporary platform
Extend the IES	Extend the functionality within the new IES that is being built to satisfy the requirements of the ACA to support the functionality of the CSE program.

- The macro-level analysis was followed by an interactive facilitated session with the identified stakeholder group, where in each of the alternatives was presented to the participants along with their respective strengths, weaknesses and risks.
- At the end of the presentation of this macro-level analysis, the stakeholders group was asked to identify those alternatives that they did not think would be suitable for OCSS. The stakeholder group determined that *Extending the IES* was not actually an alternative. Rather, **leveraging the technology investment in IES is a fundamental requirement** for any viable CSE modernization alternative.
- Given that leveraging the assets and functionalities of the IES was now a prerequisite for any CSE modernization alternative, the group determined that a custom-built solution would enable the most potential reuse of IES assets, and pose less risk than the other alternatives considered.

Consequently, Custom Build was selected as the only 'other' alternative *(in addition to the mandatory alternatives i.e. Status-quo and Transfer System)* that would be evaluated in detail during the *Alternatives Analysis* and *Cost-Benefit Analysis* phases.

2.3 STEP 3: FEASIBILITY & ALTERNATIVES ANALYSIS

Feasibility & Alternatives Analysis comprised of detailed assessment of the three (3) viable *future CSE replacement* alternatives. A uniform set of methodologies, templates and measurement techniques were employed to perform SWOT analysis, Gap Analysis, Risk Assessment, and Sizing estimates, as applicable, for each of the identified viable alternatives. The data, on which the analyses are based, was drawn through various facilitated discussion sessions, as well as consensus-based scoring sessions with functional and technical stakeholders.

Presented in the following subsections is a synopsis of the key aspects of the analyses performed for each of the three viable alternatives.

2.3.1 Alternative 1: Maintain Status Quo

InRHODES has been continually evolving to support operational and programmatic needs of the State's IV-D Program.

Therefore, Maintaining Status Quo means a continuation of automation support using InRHODES, while investing in enhancements and further maintenance of the entire application suite, to satisfy the needs of the IV-D program.

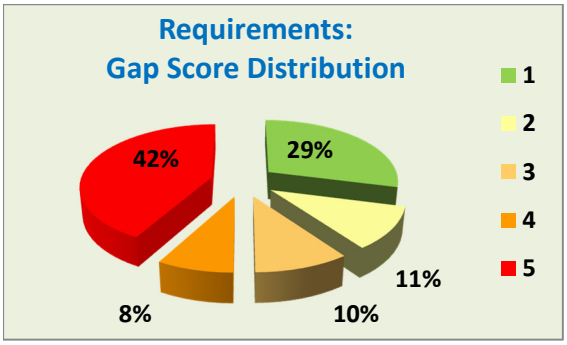
The salient findings of the SWOT Analysis for the *Status Quo* are presented on the following page:

Strengths	Weaknesses
• Extremely reliable - high availability, accuracy, response time, data quality • Single source of record • Federally certified • Fully automated enforcement remedies • InRHODES is familiar and users are accustomed to its functionality • Established operational and technical processes • Includes a web-based user interface and connection to the Voice Response Unit • Interacts well with the State Disbursement Unit and the agency's banking institution	• Very high total cost of ownership • Obsolete technologies, dated architecture and outdated user interfaces • Over-dependence on staff-initiated, manual processes and tasks • Insufficient audit trails • Inability to reconcile financial transactions against the State Accounting System, and to provide details to explain financial variances • Alerts are not performance driven • Unintuitive navigation • No integration with contemporary tools and technologies – scheduling, electronic messaging, dashboards, business intelligence, forms creation, etc. • Inhibits agency efficiency and effectiveness
Opportunities	**Threats**
• Integration with Family Court E-file system	• Significant financial exposure for solely supporting the InRHODES infrastructure • Total failure of this mission-critical application suite due to total reliance on antiquated tools and technology • Decreasing pool of available skilled resources to support InRHODES and its technology components • Potential loss of federal incentive dollars

The computed aggregate gap scores (between InRHODES CSE and the stated requirements) were:

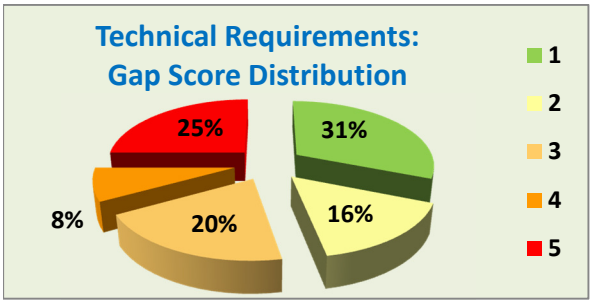
Functional Gap Score	3.3	*An average of about 57.5% of the functional requirements not met*
Technical Gap Score	2.8	*An average of about 44.0% of the technical requirements not met*

In general, InRHODES fails to meet many of the identified requirements. The key gaps pertain to the absence of: (a) self-service features; (b) intelligent navigational features; (c) contemporary case management features and tools; (d) automation within the Interstate functional area; (e) detailed financial reports to assist in reconciliation; (f) automated scheduling tools; (g) an effective alerts system; and (h) enhanced search, match and lookup capabilities.



In other words, most InRHODES shortcomings are in areas where *automation support paradigms* have been redefined by contemporary technologies.

There is a medium gap with respect to the *Technical requirements*. InRHODES meets only 35 of the 113 technical requirements that were scored. The key technology gaps pertain to the need for a contemporary, web-based, multi-tiered automated system, to support the Child Support Program.



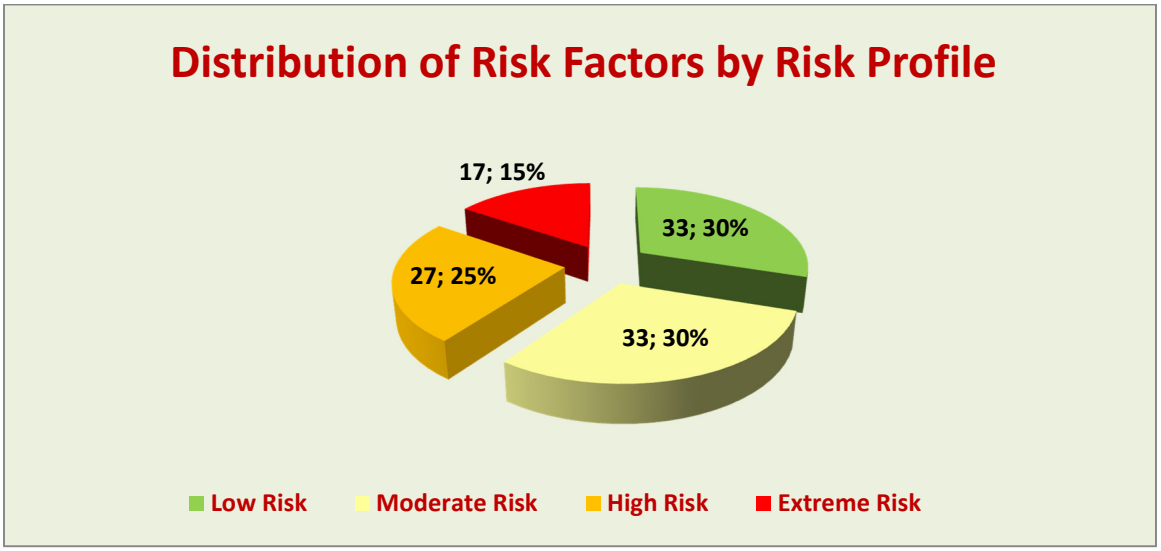
The overall risk profile for this alternative is '*High to Extreme*'.

The three (3) risk categories with the highest risk profile pertain to: (1) *Organizational Factors,* (2) *Business Case Factors*, and (3) *Solution & Implementation Factors*.

The elevated risk profile of all these categories is primarily due to the fact that InRHODES is an antiquated system that fails to meet the current needs of the OCSS; the shortage of staff within the OCSS and the need for increased automation to improve staff efficiency; and the significant financial exposure to the OCSS when it is the sole user of InRHODES.

The distribution of risk factors by risk

profile indicates a fairly equitable distribution of Low and moderate risk factors, and a high number of High and Extreme risk factors. This broad risk profile is due to the fact that, while the status quo meets the core needs of the OCSS, it is unable to deliver the level of automation desperately needed by the OCSS to enable staff to focus on value-added activities. Continuing with the Status Quo will expose the OCSS to ever increasing risks as support for its outdated technology platforms are discontinued, and skilled resources to maintain and operate its legacy components become scarce.



With 33 low risks, 33 moderate risks, 27 high risks and 17 extreme risks, the aggregate *risk score* for this alternative is 248.

Note – The mitigation strategies for the identified risks are delineated in the 'Feasibility and Alternatives Analysis Report'.

2.3.2 Alternative 2: Adapt NJKiDS

NJKiDS was selected as the most viable Transfer System for the *future CSE replacement solution*. *Adapt NJKiDS* refers to the alternative of transferring NJKiDS system and adapting it to meet Rhode Island's CSE needs and fully leverage the reusable assets of the State's new IES system RI Bridges.

NJKiDS is a contemporary n-tiered application that is built on the modern and proven J2EE platform and follows industry best practices. NJKiDS was certified by the OCSE in July 2010.

As a modernization solution for RI, the alternative of *Adapting NJKiDS* would provide the RI OCSS with many of the features and functionality it desires in a new system.

However, the transfer of any large complex system to another State does have some inherent risks – some of which are compounded by the fundamental RI requirement to leverage the assets of RI IES.

The salient findings of the SWOT Analysis for the *Adapt NJKiDS* alternative are presented in the table below:

Strengths	Weaknesses
• Fully functioning modern system • Federally certified • Built on proven & contemporary platforms • Technology stack is identical to that used by RI Bridges • Fully satisfies many of the requirements identified as a priority by OCSS • The availability of core functionality will minimize the risk of errors and omissions typically associated with building components afresh • Code base is available free of charge • Provides detailed financial reporting • Integrated Business Intelligence portal • The lack of integrated features for activities such as scheduling, electronic document imaging, and case intake will eliminate the need to remove these particular features from NJKiDS and therefore reduce the overall modification effort	• Lacks an integrated citizen-facing web-based component • Over-dependence on staff-initiated, manual processes and tasks • Lacks worker-based performance monitoring and reporting features • The lack of database referential integrity • Lacks automated scheduling facilities • Lacks rules-based tools and functions • Incorporates custom coding specific to NJ's needs and requirements • Lacks functionality to refer Service of Process requests to appropriate constables • Lacks functionality to accept/process referrals from the Child Care Assistance Program • Lacks functionality to monitor and track the emancipation age of the youngest child • Lacks IV-A – IV-D referral functionality • 9 year old technology

Opportunities	Threats

• The ability to implement a modern Child Support Enforcement system
• The ability to benefit from the experiences and lessons learned by NJ and other States who successfully modernize the delivery of services under the Child Support Program.
• The ability to implement a proven system without the burden of building every component afresh
• The ability to introduce modern technological advancements such as:
  ○ Electronic messaging
  ○ Continuous Locate activities
  ○ On-demand performance reports and queries
  ○ Real-time Case Management Tools
  ○ Business partner portals
• Mature contemporary technologies offer cheaper and mainstream computing
	• OCSS may face challenges to dedicate adequate number of staff to the modernization project
	• The cost to modify NJKiDS will be higher as a result of the need to leverage the common assets of the IES
	• The Cost of maintenance and support of NJKiDS would be the sole responsibility of OCSS as these costs cannot be shared amongst the other DHS programs.
	• Existing bugs or defects will be inherited by RI
	• The modification of system functionality and the removal of integrated components that duplicate the assets leveraged through the IES could destabilize the system
	• Loss of federal certification if the system changes result in a failure to meet all of the identified federal requirements

As a modernization solution for RI, the alternative of *Adapting NJKiDS* would provide the RI OCSS with many of the features and functionality it desires in a new system. The transfer of any large complex system to another State does, however, have some inherent risks – some of which are compounded by the fundamental RI requirement to leverage the assets of the RI IES.

There are significant differences between the organization structures and processes employed by New Jersey and Rhode Island in the delivery of Child Support services. In NJ, the program is supervised centrally by the state and administered through the individual counties. Distinct offices/agencies within a county are responsible for different aspects of program administration. In RI, the program is supervised and administered centrally, within one location, by the State. There are no field offices delivering child support services in the State of RI.

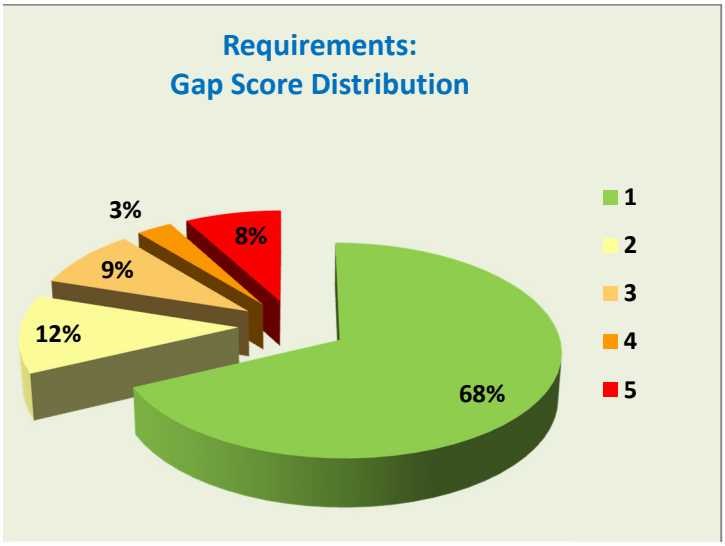
The **Gap Assessment** for this alternative was based on an onsite evaluation visit, follow-up Q&A and web sessions, detailed responses to the State Survey Questionnaire, and a study of pertinent material provided by New Jersey.
The computed aggregate gap scores (between NJKiDS and OCSS's stated requirements) were:

Functional Gap Score	1.8	*An average of about 17% of the functional requirements not met*
Technical Gap Score	1.3	*An average of about 9.5% of the technical requirements not met*

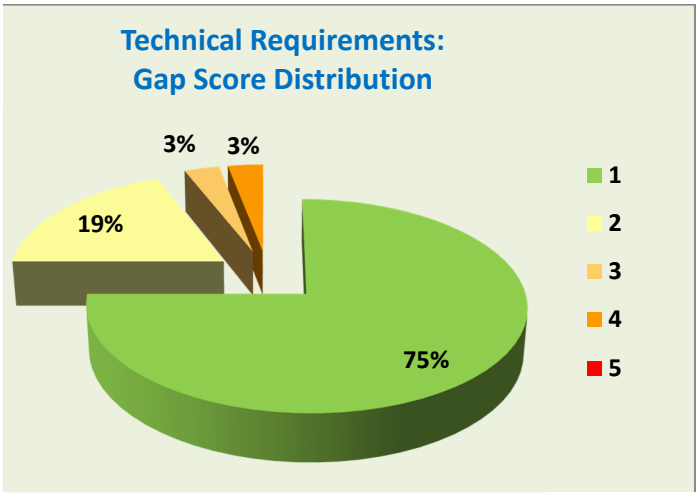
In general, NJKiDS meets most of the standard operational requirements of the RI OCSS. However, it is missing the following key functionality:

- IV-A – IV-D Interface
- Self Service
- CCAP Functionality
- Automated Scheduling
- Data De-dup measures
- Service of Process
- Emancipation
- Worker-based Performance Reporting

In addition, within each of the core functional areas, there are significant gaps between the level of functional automation desired by RI, and the level of automation that currently exists within NJKiDS.

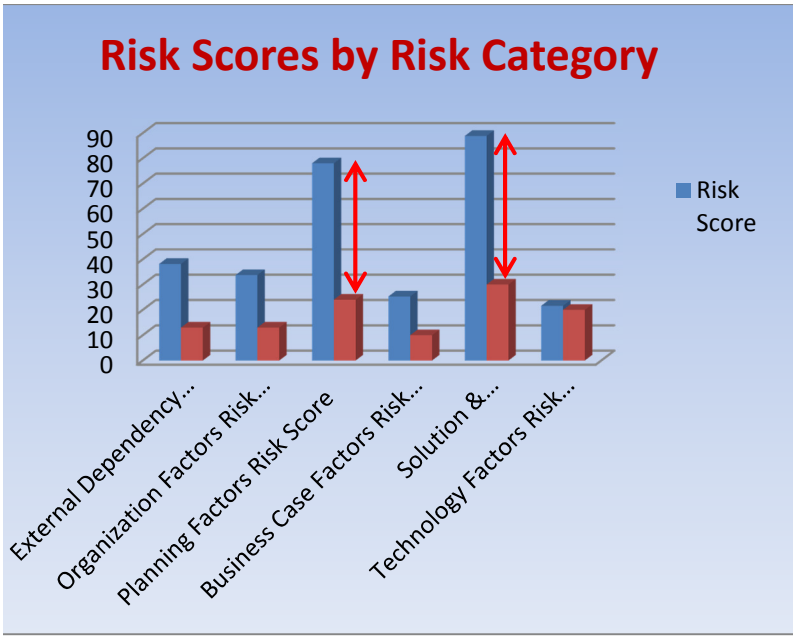


Due to the significant shortage of staff in the RI OCSS, any *future CSE replacement solution* must automatically initiate next case actions on behalf of a case worker, where possible. As the system exists today in NJ, the majority of next case actions are referred to a caseworker for review and approval before the system initiates an action.

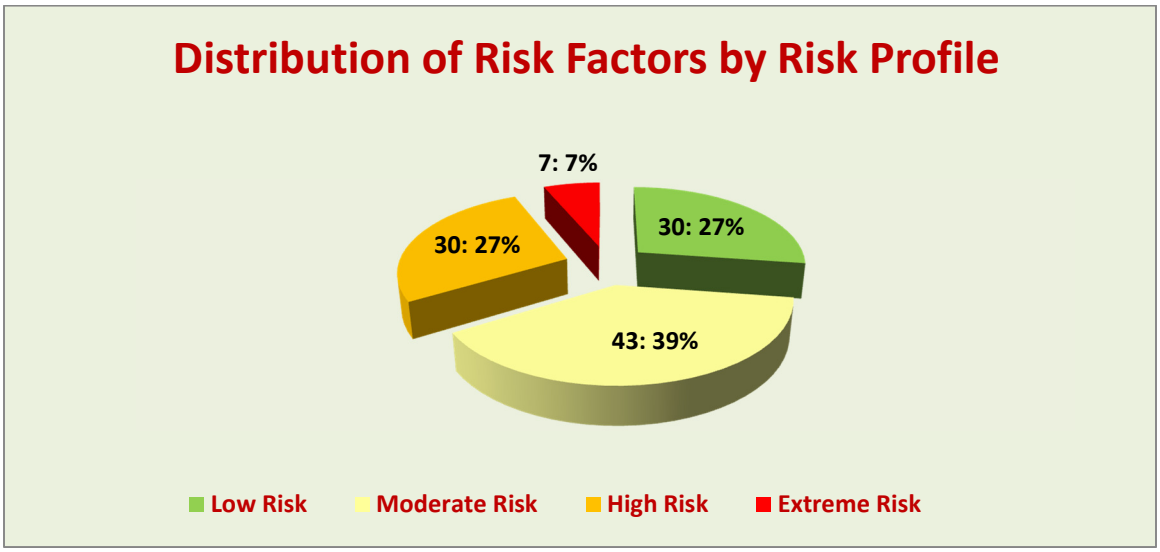


NJKiDS satisfies most of the RI *Technical* requirements. The key technology gap pertains to the presence of custom-built components within NJKiDS, which duplicate the components of the IES system that any *future CSE replacement solution* must leverage. This will require the removal of many of these components from NJKiDS which could compromise the integrity of the system and increase risks. NJKiDS includes good load balancing and failover mechanisms, and it follows a very thorough and well thought through Disaster Recovery Plan. **The overall risk profile** for this alternative is '*High to Extreme*'.

The two risk factors with the highest risk profile pertain to: (a) *Planning and Execution*; and (b) *Solution and Implementation*. The most notable risks associated with the *Adapt NJKiDS* alternative stem from the prerequisite to modify NJKiDS to not only meet the identified requirements of RI, but to also remove integral components of the system to prevent duplication of IES functionalities.



The distribution of risk factors by risk profile indicates the potential for exposure to a large number of moderate and high-risk profile factors. On the one hand, there is virtually no investment in obtaining the code base of NJKiDS, and the availability of core functionality will minimize the risk of errors and omissions - typically associated with building components afresh. On the other hand, the staffing challenges within the OCSS, and the extensive modifications that must be made to satisfy RI requirements and eliminate any functional redundancy between the IES and NJKiDS ultimately increase the overall risk of this alternative.



With 30 low risks, 43 moderate risks, 30 high risks and 7 extreme risks, the aggregate *risk score* for this alternative is 234.

Note – The mitigation strategies for the identified risks are delineated in the 'Feasibility and Alternatives Analysis Report'.

The *Adapt NJKiDS* **effort is estimated** to take about **41 months** from requirements through rollout, and need about **2503 person months** of effort.

The non-recurring and recurring costs associated with the Adapt NJKiDS alternative are shown on the following page. These cost computations are based on a team composition of 90% contract staff at an average rate of $125 per hour and 10% state staff at $44 per hour.

SymbioSys Solutions, Inc.

Cost Projections for Adapt NJKIDS

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Non-Recurring Costs	$ -	$ 2,184,134	$ 16,862,854	$19,957,035	$ 20,971,733	$ 5,769,845	$ -	$ -	$ -	$ -	$ -	$ -	$ 65,745,601
Recurring Costs	$ -	$ -	$ -	$ -	$ -	$ 1,606,057	$ 3,479,607	$ 3,579,050	$ 3,681,378	$ 5,435,890	$ 3,895,027	$ 4,013,382	$ 25,690,391
Total Projected New Build Costs	**$ -**	**$ 2,184,134**	**$ 16,862,854**	**$19,957,035**	**$ 20,971,733**	**$ 7,375,902**	**$ 3,479,607**	**$ 3,579,050**	**$ 3,681,378**	**$ 5,435,890**	**$ 3,895,027**	**$ 4,013,382**	**$ 91,435,992**
Present Value Factor	0.9667	0.9035	0.8444	0.7892	0.7376	0.6893	0.6442	0.6021	0.5626	0.5258	0.4914	0.4593	
Total Present Value Cost	$ -	$ 1,973,365	$ 14,238,994	$15,750,092	$ 15,468,750	$ 5,084,209	$ 2,241,563	$ 2,154,946	$ 2,071,143	$ 2,858,191	$ 1,914,016	$ 1,843,346	$ 65,598,616
Cumulative Total Projected Costs	**$ -**	**$ 1,973,365**	**$ 16,212,359**	**$31,962,451**	**$ 47,431,201**	**$52,515,410**	**$54,756,973**	**$ 56,911,920**	**$ 58,983,063**	**$ 61,841,254**	**$ 63,755,270**	**$ 65,598,616**	**$ 65,598,616**

Non-recurring Cost Projections for Adapt NJKIDS

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Staff Augmentation	$ -	$ 49,680	$ 298,080	$ 298,080	$ 298,080	$ 74,520	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,018,440
Hardware Purchase[1]	$ -	$ -	$ 99,928	$ -	$ 299,784		$ -	$ -	$ -	$ -	$ -	$ -	$ 399,712
Software Purchase[2]	$ -	$ -	$ 238,305	$ -	$ 714,915	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 953,219
Application Dev. & Implementation	$ -	$ 1,882,454	$ 11,294,725	$11,294,725	$ 11,294,725	$ 2,823,681	$ -		$ -	$ -	$ -		$ 38,590,310
Conversion	$ -	$ -	$ 2,733,333	$ 2,733,333	$ 2,733,333	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,200,000
Rollout and Warranty Support	$ -	$ -	$ -	$ -	$ -	$ 1,206,320	$ -		$ -	$ -	$ -	$ -	$ 1,206,320
PMO/IV&V/QA *(included in Impl cost)*	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Training	$ -	$ -	$ -	$ -	$ -	$ 257,600	$ -	$ -	$ -	$ -	$ -	$ -	$ 257,600
IES Vendor	$ -	$ 252,000	$ 2,198,483	$ 5,630,897	$ 5,630,897	$ 1,407,724	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,120,000
Total Projected Non-Recurring Costs	$ -	$ 2,184,134	$ 16,862,854	$19,957,035	$ 20,971,733	$ 5,769,845	$ -	$ -	$ -	$ -	$ -	$ -	$ 65,745,601

Recurring Cost Projections for NJKIDS

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Direct Personnel - DOIT	$ -	$ -	$ -	$ -	$ -	$ 232,886	$ 316,725	$ 323,059	$ 329,520	$ 336,111	$ 342,833	$ 356,546	$ 2,237,681
Contractor Services	$ -	$ -	$ -	$ -	$ -	$ 1,163,960	$ 2,877,309	$ 2,963,628	$ 3,052,537	$ 3,144,113	$ 3,238,437	$ 3,335,590	$ 19,775,574
Hardware/Software - Local	$ -	$ -	$ -	$ -	$ -	$ 66,410	$ 91,203	$ 93,939	$ 96,757	$ 99,659	$ 102,649	$ 105,729	$ 656,345
Server Costs - Central	$ -	$ -	$ -	$ -	$ -	$ 12,078	$ 16,587	$ 17,085	$ 17,597	$ 505,372	$ 18,669	$ 19,229	$ 606,617
Software - Central	$ -	$ -	$ -	$ -	$ -	$ 130,723	$ 177,784	$ 181,339	$ 184,966	$ 1,350,635	$ 192,439	$ 196,288	$ 2,414,174
Total Projected Recurring Costs	$ -	$ -	$ -	$ -	$ -	$ 1,606,057	$ 3,479,607	$ 3,579,050	$ 3,681,378	$ 5,435,890	$ 3,895,027	$ 4,013,382	$ 25,690,391

FFY 2024 Recurring Cost Server Costs - Central and Software - Central reflect upgrade of hardware and software

The total one-time costs to implement the *Adapt NJKiDS* solution for the State of RI is projected to be $65,745,601.The specific costs which comprise this figure can be found in the table on the previous page (for details refer to the section entitled *Non-recurring Costs Projections for Adapt NJKiDS).* No economic growth factors were applied to these one-time costs given the fact that the contract awarded to implement a new CSE solution will be based on a firm fixed price from the beginning of the project through the four (4) month rollout period following system implementation.

The total projected cost for the *Adapt NJKiDS* alternative, over the twelve (12) year period used for this Feasibility Study totals $91,435,992.[3] This sum is reached by adding the one-time costs of $65,745,601 to the projected recurring costs of $25,690,391.[4]

[3] The present value of the total cost of $91,435,992 is $65,598,616. The present value was used to equitably evaluate each alternative.

[4] The recurring costs commence during FFY 2020 and do include annual economic growth factors.

2.3.3 Alternative 3: Custom Build

As a modernization solution for RI, the *Custom Build* alternative provides the State of RI with an opportunity to build a new system that completely meets its identified needs, while at the same time taking advantage of existing ready-to-use functionality within the IES, at little cost to the Child Support Program. This is an attractive and obvious advantage of this alternative.

The success of this alternative is heavily reliant on producing detailed requirements specifications and business rule definitions, which cover the breadth and depth of each requirement that must be satisfied to implement an ***excellent-fit*** solution. Therefore, the ability to draw upon, validate, and articulate the intricate details of OCSS's institutional knowledge and wisdom are key to the success of this alternative.

A Gap Analysis was not performed for the *Custom Build* alternative, because, by its nature, it is expected to meet all of RI's identified requirements.

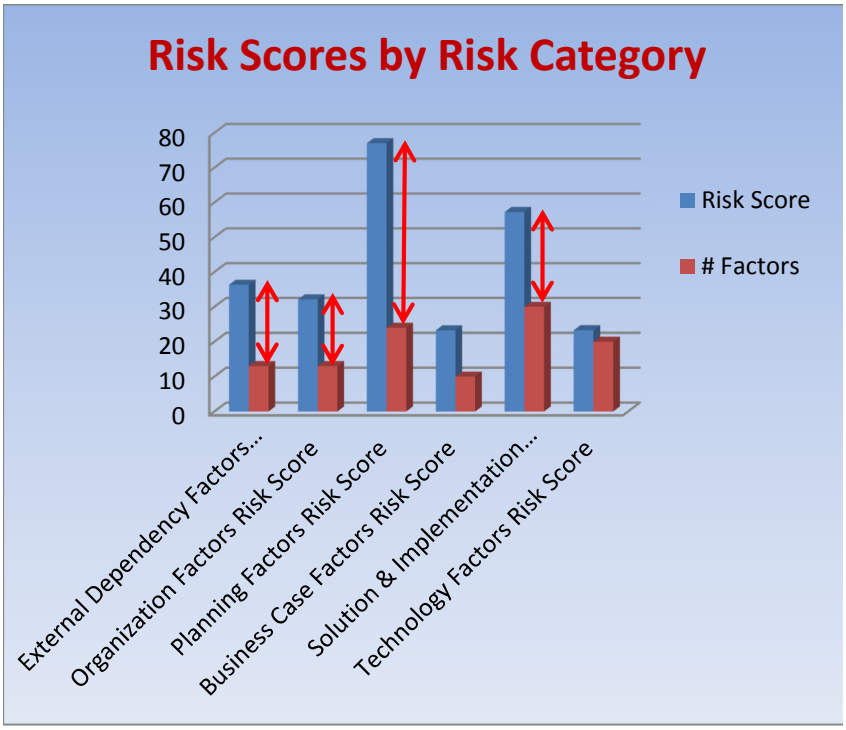
The salient findings of the SWOT Analysis for *Custom Build* are presented on the next page:

Strengths	Weaknesses
• Satisfies all identified requirements • Fully meets all business objectives • Fully integrates with other Human Services Programs contained in IES • Leverages IES assets and functionality at a substantially reduced cost • Avoids inheriting the constraints or flaws typical of transferred solutions • Increased system longevity, scalability and enhancibility • Universal access to all state HS programs with one password & a single sign-on. • Data conversion efforts benefit from the experience of data conversion for other HS programs in IES	• Does not leverage any existing core CSE solution components • Extremely resource intensive • Prone to errors and omissions • Requires rigorous and extensive testing, and longer parallel run periods • The final product may fail to achieve federal certification status • Critical dependency and reliance on the IES • Increased exposure to escalating project costs
Opportunities	**Threats**

• The ability to leverage existing IES technology, functionality and best practices at substantial savings
• Improved information sharing amongst business partners
• Lower M & O costs
• Lower total cost of ownership
• Improved customer service and access to services
• Improved agency performance and efficiency
• Improved employee morale and acceptance towards change
• The ability to introduce modern technological advancements such as:
  ○ Electronic messaging
  ○ Continuous Locate activities
  ○ On-demand performance reports and queries
  ○ Real-time Case Management Tools
  ○ Business partner portals
	• The new system experiences prolonged instability in production
	• Prolonged project timelines
	• Loss of enhanced federal funding opportunities
	• Functional degradation
	• Single point of failure
	• Project completion is driven by factors other than project need
	• OCSS may face challenges to dedicate adequate number of staff to the modernization project

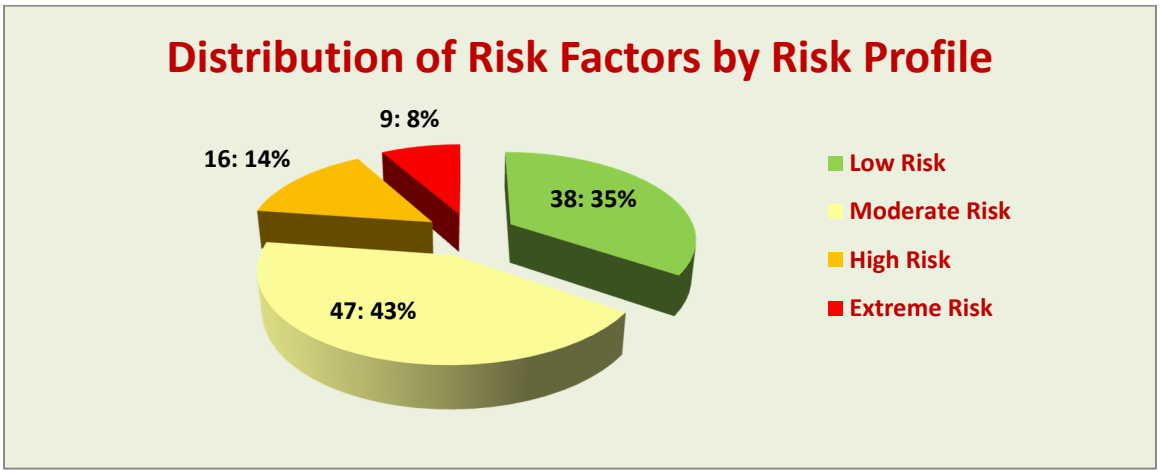
The overall risk profile for this alternative is '*High to Extreme*'.

The 2 risk categories with a large number of risk factors with a *High* or *Extreme* risk profile pertain to: (a) *Planning and Execution;* and (b) *Solution & Implementation.*



The most notable risk factors that are specific to the *Custom Build* alternative stem from: (1) the potential for errors and omissions in undertaking a project of this magnitude from the ground up; (2) the tendency to under-estimate the amount of time and effort that is typically required for a custom-built solution; (3) the effect that limited OCSS staffing levels could have on the quantity and quality of State time expended on the project; (4) unrealistic project schedules; and (5) the inter-dependencies between the IES and the CSE solution.

The distribution of risk factors by risk profile indicates the potential for exposure to a large number of moderate and high risk factors, as well as several extreme risk factors.



With 38 low risks, 47 moderate risks, 16 high risks and 9 extreme risks, the aggregate *risk score* for this alternative is 216.

Note – The mitigation strategies for the identified risks are delineated in the 'Feasibility and Alternatives Analysis Report'.

In general, a custom-built solution, if it is done correctly, will offer high rewards throughout the life of the system.

If this alternative is pursued, it is prudent to be cognizant of the poor general track record (significant execution risks, cost overruns, etc.) associated with custom build solutions, and to take the required precautions to avoid the typical pitfalls. Thorough requirements analysis, planning, project management, and quality assurance measures, are imperative to the success of this alternative.

The *Custom Build* effort is estimated to take about **40 months** from requirements through roll-out and need about **2530 person months** of effort. These estimates are inclusive of data conversion activities.

The non-recurring and recurring costs associated with the Custom Build alternative are shown on the following page. These cost computations are based on a team composition of 90% contract staff at an average rate of $125 per hour and 10% state staff at $44 per hour.

Cost Projections for Custom Build

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Non-Recurring Costs	$ -	$ 2,100,627	$ 15,948,502	$16,976,126	$ 17,990,824	$ 3,837,719	$ -	$ -	$ -	$ -	$ -	$ -	$ 56,853,798
Recurring Costs	$ -	$ -	$ -	$ -	$ -	$ 1,903,387	$ 3,511,365	$ 3,611,761	$ 3,715,070	$ 5,470,592	$ 3,930,770	$ 4,050,197	$ 26,193,142
Total Projected New Build Costs	**$ -**	**$ 2,100,627**	**$ 15,948,502**	**$16,976,126**	**$ 17,990,824**	**$ 5,741,106**	**$ 3,511,365**	**$ 3,611,761**	**$ 3,715,070**	**$ 5,470,592**	**$ 3,930,770**	**$ 4,050,197**	**$ 83,046,940**
Present Value Factor	0.9667	0.9035	0.8444	0.7892	0.7376	0.6893	0.6442	0.6021	0.5626	0.5258	0.4914	0.4593	
Total Present Value Cost	$ -	$ 1,897,917	$ 13,466,915	$13,397,559	$ 13,270,032	$ 3,957,344	$ 2,262,021	$ 2,174,641	$ 2,090,098	$ 2,876,437	$ 1,931,581	$ 1,860,256	$ 59,184,801
Cumulative Total Projected Costs	**$ -**	**$ 1,897,917**	**$ 15,364,832**	**$28,762,390**	**$ 42,032,422**	**$45,989,766**	**$48,251,788**	**$ 50,426,429**	**$ 52,516,527**	**$ 55,392,964**	**$ 57,324,545**	**$ 59,184,801**	**$ 59,184,801**

Non-recurring Cost Projections for Custom Build

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Staff Augmentation	$ -	$ 49,680	$ 298,080	$ 298,080	$ 298,080	$ 49,680	$ -	$ -	$ -	$ -	$ -	$ -	$ 993,600
Hardware Purchase	$ -	$ -	$ 99,928	$ -	$ 299,784	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 399,712
Software Purchase	$ -	$ -	$ 238,305	$ -	$ 714,915	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 953,219
Application Dev. & Implementation	$ -	$ 1,955,337	$ 11,732,024	$11,732,024	$ 11,732,024	$ 1,955,337	$ -	$ -	$ -	$ -	$ -	$ -	$ 39,106,747
Conversion	$ -	$ -	$ 2,733,333	$ 2,733,333	$ 2,733,333	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 8,200,000
Rollout	$ -	$ -	$ -	$ -	$ -	$ 1,206,320	$ -	$ -	$ -	$ -	$ -	$ -	$ 1,206,320
Project Management/QA/IV & V services	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Training	$ -	$ -	$ -	$ -	$ -	$ 257,600	$ -	$ -	$ -	$ -	$ -	$ -	$ 257,600
IES Vendor	$ -	$ 95,610	$ 846,831	$ 2,212,689	$ 2,212,689	$ 368,781	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,736,600
Total Projected Non-Recurring Costs	$ -	$ 2,100,627	$ 15,948,502	$16,976,126	$ 17,990,824	$ 3,837,719	$ -	$ -	$ -	$ -	$ -	$ -	$ 56,853,798

Recurring Cost Projections for Custom Build

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
Direct Personnel - DOIT	$ -	$ -	$ -	$ -	$ -	$ 258,762	$ 316,725	$ 323,059	$ 329,520	$ 336,111	$ 342,833	$ 356,546	$ 2,263,557
Contractor Services	$ -	$ -	$ -	$ -	$ -	$ 1,412,168	$ 2,909,067	$ 2,996,339	$ 3,086,229	$ 3,178,816	$ 3,274,180	$ 3,372,405	$ 20,229,203
Hardware/Software - Local	$ -	$ -	$ -	$ -	$ -	$ 73,788	$ 91,203	$ 93,939	$ 96,757	$ 99,659	$ 102,649	$ 105,729	$ 663,724
Server Costs-Central	$ -	$ -	$ -	$ -	$ -	$ 13,420	$ 16,587	$ 17,085	$ 17,597	$ 505,372	$ 18,669	$ 19,229	$ 607,959
Software - Central	$ -	$ -	$ -	$ -	$ -	$ 145,248	$ 177,784	$ 181,339	$ 184,966	$ 1,350,635	$ 192,439	$ 196,288	$ 2,428,698
Total Projected Recurring Costs	$ -	$ -	$ -	$ -	$ -	$ 1,903,387	$ 3,511,365	$ 3,611,761	$ 3,715,070	$ 5,470,592	$ 3,930,770	$ 4,050,197	$ 26,193,142

FFY 2024 Recurring Cost Server Costs - Central and Software - Central reflect upgrade of hardware and software

The total one-time costs to implement the Custom Build solution for the State of RI is projected to be $56,853,798.The specific costs which comprise this figure can be found in the table on the previous page (for details please refer to the section entitled *Non-recurring Costs Projections for Custom Build).* No economic growth factors were applied to these one-time costs given the fact that the contract awarded to implement a new CSE solution will be based on a firm fixed price from the beginning of the project through the four (4) month rollout period following system implementation.

The total projected cost for the Custom Build alternative, over the twelve (12) year period used for this Feasibility Study totals $83,046,940[5]. This sum is reached by adding the one-time costs of $56,853,798 to the projected recurring costs of $26,193,142.[6]

[5] The present value of the total cost of $83,046,940 is $59,184,801. The present value was used to equitably evaluate each alternative.

[6] The recurring costs commence during FFY 2020 and do include annual economic growth factors

2.4 STEP 4: COST BENEFIT ANALYSIS

Cost Benefit Analysis (CBA) provides an analytical framework to uniformly and objectively evaluate the financial metrics (costs and benefits) pertaining to the alternatives under consideration. It was performed based on the federal OCSE's guidelines for conducting Cost-Benefit Analyses for Child Support Enforcement System replacement projects.

Historic cost data pertaining to the different aspects of maintaining InRHODES was gathered by reviewing previous APDUs, and through discussions with the OCSS Principle Finance Officer. Cost data pertaining to the future solution environment was estimated based on the infrastructure and other environment costs incurred for the IES implementation.

Assumptions

- **12-year measurement period from FFY 2015 until FFY 2026**
- **FFY 2014 used as the base year for cost data.**
- **A present value factor of 7% will be applied to all benefits and costs.**
- **The recurring cost categories include growth factors while the non-recurring costs do not unless noted otherwise.**
- **All *CSE Replacement alternatives* to fully realize all quantitative benefits once implemented.**
- **Efficiencies gained will be channeled towards increasing collections**
- **Project will commence August 2016. All required funding approvals (federal and state) will have been obtained, and RFP written, released, and evaluated and a vendor selected.**
- **The project team composition will be 90% contractor staff and 10% state staff**

Quantitative Benefits Summary

- 12 *Productivity* gains benefits leading to **40.6 FTE gains**
- 6 *Faster Throughput* gains
  - CI sped up by **3 days**
  - Locate sped up by **12.7 days**
  - Establishment sped up by **30.2 days**
  - Enforcement sped up by **5.9 days**
  - Interstate sped up by **0.5 days**
  - Interfaces sped up by **0.1 days**
- Direct Cost savings of **$162,351**

Quantitative Benefits have been measured based on how they will translate into either (a) increased collections (from productivity gains or shorter elapsed times), or (b) direct cost savings. Input from OCSS staff, the results of a mini time study, review of historic federal workload data, and InRHODES queries, provided the metrics to quantify benefits.

Productivity gains were translated into increased collections by computing the increased collections that would potentially result from channeling freed up resources to perform activities that could increase collection.

Discount factors were applied to account for (a) the sum of fragmented FTE gains, not being the same as an equivalent number of fully productive FTE, and (b) diminishing returns; because the addition of FTEs will not proportionately increase collections.

Elapsed day gains were translated into the increased collection, which could be realized by shortening the length of time it takes to make a case a paying case.

Qualitative Benefits Analysis included identifying 12 qualitative benefits and measuring the effectiveness of each alternative in impacting key factors such as Program Accountability, Delivery of Services, Program Effectiveness, Performance Measure, Efficiency Gains and System Maintainability.

Alternative	# of Benefits by Extent of Impact		
	Medium	High	Very High
New Build	1	2	9
Adapt NJKiDS	2	6	4

Assigning the values:
1: to *Medium* rating
2: to *High* rating
3: to *Very High rating*

The resultant Score is:
Custom Build: 32
Adapt NJKiDS: 24

Presented below is a summary of the key financial metrics for each of the alternatives.

METRIC	Status Quo	Custom Build	Adapt NJKiDS
Present Value of Cumulative Benefits	NA	$100,382,785	$100,382,785
Present Value of Cumulative Costs	$16,904,432	$59,184,801	$65,598,616
Present Value of Net Benefits	NA	$41,197,984	$34,784,169
Benefit to Cost Ratio	--	1.696	1.530
Breakeven Year	NA	FFY 2023	FFY 2023

Some noteworthy points about the CBA comparison are:

Benefits

- The present value benefits resulting from *Custom Build* and *Adapt NJKiDS* have the same dollar value of about $100,382,785 million. This benefit amount is the cumulative benefits for FFY 2020 through FFY 2026. These benefits are equal because: (a) the analysis assumes that all alternatives would meet 100% of functional requirements articulated in the *Requirements Document*; and (b) both alternatives have nearly identical implementation schedules, and therefore start realizing benefits at the same time.

Costs

- *Custom Build* has the highest present value costs of the 2 alternatives. The cumulative present value cost for *Custom Build* alternative is $59,184,801 as compared to $65,598,616 for *Adapt NJKiDS*.

Net Benefits

- Both alternatives have positive present value net benefits over the CBA time horizon.
- The net benefits derived from Custom Build are $41,197,984 while the net benefits derived from *Adapt NJKiDS* are somewhat less at $34,784,169.

Benefits to Cost Ratio

- *Custom Build* results in the highest *Benefit to Cost* ratio of 1.696 versus 1.530 for *Adapt NJKiDS.* The *Benefit to Cost* ratio represents the dollar value of the return that can be expected on each dollar that is invested in respective alternative.

Breakeven Year

- *Both the Custom Build and Adapt NJKiDS* alternatives break even in FFY 2023. The breakeven point occur when, during the CBA time horizon, the cumulative investment in the project will be fully offset by the cumulative benefits that have been accrued.
- The breakeven point is determined using **actual or current** value benefits instead of the present value of benefits.
- While each alternative breaks even in FFY 2023, the *Custom Build* alternative results in an $8.5 million higher net benefit in FFY 2023 than the *Adapt NJKiDS* alternative.

Qualitative Benefits

- Although both *CSE Replacement* alternatives will provide a number of qualitative benefits, the measure of effectiveness of these qualitative benefits is the highest with the Custom *Build* alternative.

The above findings suggest that:

- Given the age, approaching technology-obsolescence of InRHODES, and the planned full implementation of IES for DHS, any portion of the $16,904,432 *Status Quo* cost (over the CBA time horizon) that can be avoided, and channeled into one of the *CSE Replacement Alternatives*, will yield greater returns for OCSS.
- *The Custom Build alternative provides a better return on investment, a larger net benefit during the break-even year, and lower costs to implement and maintain throughout the twelve (12) year period used in this Feasibility Study*.

All financial indicators show the *Custom Build* alternative as the more financially beneficial option for the State of RI.

3 SELECTION OF BEST-VALUE ALTERNATIVE

The following subsections describe the evaluation of the three (3) viable alternatives based on a set of predefined criteria to select the alternative that offers the best value to the State, and meets its business objectives.

3.1 EVALUATION CRITERIA

The Management Steering Committee, in consultation with the Feasibility Study Team, and other stake holders, arrived at the following set of criteria and their respective % Rank (maximum points) for the evaluation of the three (3) select alternatives.

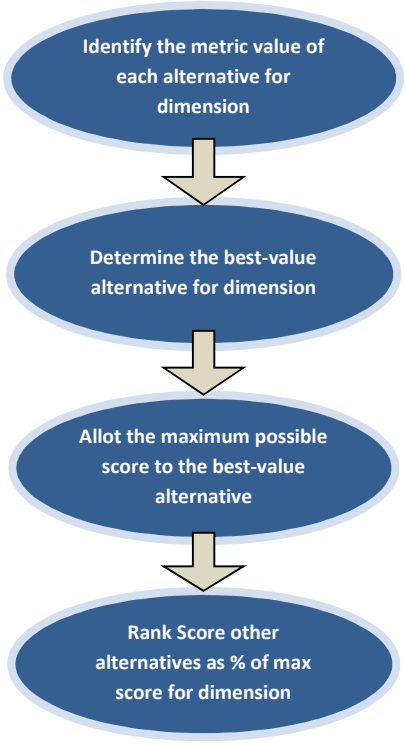
Criterion	Description	Rank (%)
Functional Fit	Meets all the 'Must Have' functional requirements documented in the Requirements Document	30%
Technical Fit	Meets all the 'Must Have' technical requirements documented in the Requirements Document	10%
Risk	Consolidated score of risks associated with the initiative: ➢ Project Execution Risks ➢ Technology Risks ➢ Quality Risks ➢ Organizational Risks including system acceptance ➢ Change Management Risks ➢ Funding Risks ➢ Federal Certification Risk	25%
Cost	Cumulative Cost – includes cost pertaining to: ➢ Planning ➢ Design/Development/Implementation ➢ QA/IV&V, if applicable ➢ Hardware & Software licensing ➢ 7years of system operations	25%
ROI	Ratio of cumulative benefits to cumulative costs	5%
Implementation Time frame	The length of time it will take to design, develop, and implement the *future CSE replacement solution*	5%

The State submitted the above evaluation criteria for Federal OCSE review and approval. OCSE promptly reviewed and approved the evaluation criteria.

3.2 METHODOLOGY AND SCORING OF ALTERNATIVES

Each alternative was evaluated based on its rank score for each of the six dimensions (*Functional Fit, Technical Fit, Risk, Cost, ROI and Implementation Time Frame*) identified as ranking criteria (presented in section 3.1 above).

For each dimension, the rank score for each alternative was determined as follows:



1. Identify the relevant metric value for each alternative from either the *Feasibility & Alternatives Analysis Report* or the *Cost Benefit Analysis Report* (as appropriate).
2. Determine the best-value alternative for that dimension.
   - For the dimensions (a) functional fit, (b) technical fit, (c) risk and (d) cost, the lowest value metric provides best value
   - For the ROI dimension, the highest value metric provides best value
3. Allot the maximum possible score (for the dimension) to the best value alternative.
4. Determine the rank score, for the other three alternatives, as a percentage of the maximum possible score. The % score is determined as:
   - Proportion of best-value metric divided by the metric for the alternative, *for the functional fit, technical fit, risk, and cost, dimensions*
   - Proportion of metric for the alternative divided by the best-value metric, *for the ROI dimension*

The resultant *Rank Scores* for each alternative for each dimension are as presented below:

	Functional (30%)			Technical (10%)			Cost (25%)		Risk (25%)		ROI (5%)		Time (5%)		Total Score & Rank	
	Gap Score	Gap %	Rank Score	Gap Score	Gap %	Rank Score	Present value of Cumulative Costs	Rank Score	Risk Score	Rank Score	ROI	Rank Score	Impl Time	Rank Score	Cumulative Rank Score	Overall Rank
Status Quo	3.3	58	2.61	2.8	44	1.14	$16,904,432	25.00	248	21.77	0.00	0.00	-	-	**50.52**	**3**
Adapt NJKiDS	1.8	17	8.82	1.3	9.5	5.26	$65,598,616	6.44	234	23.08	1.53	4.51	41	4.88	**52.99**	**2**
Custom Build	1	5	30.00	1	5	10.00	$59,184,801	7.14	216	25.00	1.696	5.00	40	5.00	**82.14**	**1**

Custom Build offers the best overall score and ranking of the three viable alternatives.

The above Rank Scoring was performed in the spreadsheet accompanying this report.

The key aspects the Rank Scoring for each dimension are presented below:

1. Functional Rank Score is based on the Functional Gap % with the maximum possible score being assigned to the alternative(s) with the smallest Gap %.

   The Gap % for each alternative has been derived from the Gap Score for the alternative.

   The overall gap rating for each alternative has been translated into the corresponding Gap % using the Gap Scoring Guideline (reproduced at the right), which was consistently used to gap rate each requirement.

Gap Score:	1	2	3	4	5
Gap %:	5	20	50	75	90

GAP SCALE

   As an example, a gap score of 1.4 has been translated to a gap rate of 11% as follows:

   Gap % = 5 + (1.4 – 1) * (20 – 5)

   Difference between Gap percentages corresponding to the Gap Scores on either side of 1.4

   Gap percentage corresponding to the Gap Score that is just less than 1.4 on the Gap Scale

   Difference between 1.4 and the Gap Score (on the Gap Scale) that is just less than 1.4

2. Technical Rank Score is based on the Technical Gap % with the maximum possible score being assigned to the alternative(s) with the smallest Gap %.

   The Gap % for each alternative has been derived from the Gap Score for the alternative, using the same technique that was employed for determining the functional Gap %. Please refer to the example provided above for details.

3. The Risk Rank Score for each alternative has been computed as the weighted sum of the number of risks within each risk profile for the alternative.

   Risk Rank Score for an alternative =
   (# of Low risks * 1) + (# of Mod risks * 2) +
   (# of High risks * 3) + (# of Ext risks * 4)

   The weights assigned to each risk profile are:

   1 ➔ Low Risk 2 ➔ Moderate Risk 3➔ High Risk 4➔ Extreme Risk

4. The Cost Rank Score has been computed by assigning the maximum possible score to the alternative(s) with the lowest present value of cumulative cost, over the entire cost-benefit time horizon. This present value of cumulative cost was computed as part of the detailed Cost-Benefit Analysis.

5. The ROI Rank Score has been computed by assigning the maximum possible score to the alternative(s) with the highest Return on Investment (computed as part of the detailed Cost-Benefit Analysis).
6. The Implementation Time Frame Rank Score has been computed by assigning the maximum score possible to the alternative(s) with the shortest implementation duration.

3.3 CONCLUSIONS

As can be seen from the discussions 3.2 above, the ***Custom Build*** alternative offers the highest cumulative score based on the weighted evaluation criteria, and thus provides best value to the State.

When the above results are considered in conjunction with the Feasibility and Alternatives Analysis, and Cost Benefit Analysis, it is clear that while this alternative costs marginally more, it offers a near perfect technical and functional fit, with the lowest risk factors. Additionally, this alternative will fully leverage the State's technology investments in IES (RI Bridges) implementation, and more cohesively integrate with it.

4 RECOMMENDATIONS

The following are the Study Team's specific *recommendations* for the *future CSE replacement solution* initiative. These recommendations are built on the findings of this Feasibility Study.

1. The replacement of the CSE functionality of InRHODES should be initiated at the earliest because continuing to maintain the status quo is technically, functionally, and economically untenable.

   Over the last ten years, the RI OCSS has seen its workforce shrink to nearly half its size despite maintaining a relatively stable caseload of 57,000 cases throughout this period. Although the OCSS has been able to achieve steady increases in collections received in each year of the last 6 federal fiscal years, its overall performance in the five federal performance areas has been inconsistent with some marginal improvements. RI currently ranks well below the national average in most of the key federal performance areas.

   Although some of the State's difficulty in achieving the desired level of performance is due to the limited number of staff supporting the Child Support Program, the primary obstacle in the way of RI achieving performance improvement is its current automated system, known as InRHODES. InRHODES is a 25+ year old legacy system that is based on outdated technology that is inflexible and lacks the level of automation needed by the OCSS in 2015. System navigation within InRHODES is cumbersome and unintuitive; system messages and alerts are overwhelming (and consequently overlooked); system actions are predominantly manually driven by staff, and system reports are difficult to retrieve.

   Maintaining InRHODES also exposes the OCSS to serious financial and operational risks. The eventual migration of every other DHS program to the new IES will shift the entire cost of maintaining and supporting InRHODES exclusively to the OCSS. The OCSS will simply not be able to sustain this level of cost increase, nor should it try to. InRHODES has reached the point of technological obsolescence and will soon reach a point of unsustainability as hardware and software becomes unsupportable and skilled technical resources eventually leave the labor force.

   In order to achieve performance improvements, the RI OCSS must have a contemporary, state-of-the-art system that exploits automation and refocuses staff toward value-added activities. Therefore, it is the recommendation of the Study Team that the OCSS initiate replacement of the InRHODES application.

2. A new CSE system should be built ground up to the exacting specifications of the State and fully leverage the reusable assets of the State's new IES system RI Bridges. This option, referred to as '*Custom Build*', is recommended as the preferred replacement option because it would provide OCSS with the best functional fit, maximize automation, and would fully align with the State's stated objective of leveraging the reusable assets of its new Integrated Eligibility System (IES) – RI Bridges.

The ranking scores based on the predefined evaluation criteria indicate that the Custom Build alternative earns the highest cumulative scores and will thus provide the best value to the State. The Custom Build alternative is expected to satisfy 100% of the functional and technical requirements identified by RI.

Additionally, this is the only alternative that will fully meet *all* of OCSS's stated business objectives. The *Custom Build* alternative will enable the OCSS to maximize the reuse of existing IES assets and functionality, and place the OCSS in a better position to fully exploit the investments that have been made in this new integrated system for the benefit of the Child Support Program.

Adapting NJKiDS is a viable but not a recommended option for the RI OCSS

While Adapting NJKiDS would provide RI with a ready-made system, there are significant fundamental differences between RI's vision for the future CSE replacement solution and the solution developed for NJ. For instance, by design, the NJ DHS chose to limit the amount of automation performed by the system and preferred to instead require staff to review and approve system recommended actions. The shortage of staff in RI necessitates a solution that maximizes automation and relieves staff of many of the functions that are manually reviewed in NJ. Moreover, RI requires access to case data at the worker level in order to assess in real time the status of cases and identify those in need of attention. NJKiDS does not provide information to this level of granularity.

While the NJKiDS base code is available at no cost to RI, there is substantial cost to modifying the solution to meet RI's needs.

The greatest risk associated with Adapting NJKiDS for RI stems from the prerequisite to maximize the reuse of IES assets. In order to accomplish this, the assets or functionality within NJKiDS that duplicates the assets or functionality of the IES will have to be removed. As many of these "common" assets are ingrained or hard coded within NJKiDS, the removal of these components could significantly affect the integrity of the system and expose the OCSS to greater risk in adopting the NJ solution.

On the basis of the above analysis, the Study Team recommends that the State adopts and pursues the Custom Build alternative for replacing InRHODES.

3. OCSS must assemble and assign, to this modernization project, a team of seasoned OCSS personnel with extensive knowledge of the State's IV-D Program to ensure that the new solution fully encapsulates OCSS's vast institutional business knowledge.

   In order for the State's modernization effort to be successful, the State needs to assume as much ownership of the design, development and implementation efforts as the contractor does. Undertaking a modernization effort of this size and magnitude will require the dedication of at least six (6) knowledgeable and experienced full-time equivalent (FTE) positions. With only 69 FTE positions currently assigned to the OCSS, it will be challenging to shift six (6) key FTEs from programmatic activities to the modernization effort.

   Unless replacements for these key personnel are secured before undertaking this project, the agency could be constantly forced to balance the needs of the program against those of the project.

   It is strongly recommended, therefore, that the OCSS establish a plan to augment its staffing throughout the course of this project.

   There are several staffing solutions, such as hiring and training temporary workers in advance of the need, or requiring the Quality Assurance vendor to supplement State labor resources with CSE professionals who can work alongside the State's project resources. Deciding how best to augment staffing will be a critical action item for the OCSS and the State of RI to consider.

4. OCSS conducts a thorough planning exercise, and puts in place a proper Project Governance Structure before the project initiation

   Custom Build requires thorough planning at the outset and proactive monitoring of project activities to ensure that this large and complex project does not fall short of expectations.

   Developing detailed plans that address resource needs, task assignments and dependencies is an essential element to any successful initiative. Identifying milestones and constantly monitoring progress against the detailed plan will better ensure the diligent use of time and resources, and ensure the State receives a solution that fully meets its needs and requirements. Establishing a Project Management Office (PMO) and formulating a proper and effective project governance structure in advance of undertaking this initiative will also ensure that requirements and project goals are not compromised.