

**State of Nevada**

**Division of Children and Family Services (DCFS)**

**Deliverable 3.5.3.6**  
**Alternatives Analysis**

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## Transmittal



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Dear Mr. Bokka and Mr. Milicevic,

On behalf of KPMG LLP (KPMG or Firm), I am pleased to submit the enclosed Deliverable Document for Deliverable 3.5.3.6 Alternatives Analysis.

Please do not hesitate to contact me at 404-556-8198 or [vrkrishnan@kpmg.com](mailto:vrkrishnan@kpmg.com) if I can provide any additional information or answer any questions.

Very truly yours,

KPMG LLP

A handwritten signature in blue ink, reading 'Venkat. R. Krishnan'. The signature is stylized with a long horizontal line extending from the end.

Venkat R Krishnan

Managing Director, State and Local Solutions

## Revision History

DATE	VERSION	DESCRIPTION	AUTHOR
11/8/2024	001	Deliverable drafted	KPMG
12/27/2024	002	Internal reviews and edits	KPMG
12/31/2024	1.0	Deliverable draft submitted to DCFS	KPMG

Modifications to the approved baseline version of this artifact must be made in accordance with the DCFS Artifact Management Standards.

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# Introduction

KPMG LLP (KPMG) has been retained by the State of Nevada Division of Child and Family Services (DCFS) to provide Alternatives Analysis that informs implementation decisions moving forward related to approach, solutions, and cost.

Having worked with DCFS to validate the vision for this modernization effort and design a future state that aligns with that, KPMG was well equipped to understand the research needs that will best serve DCFS to make informed decisions for its CCWIS journey. Not only will the research inform DCFS of broadly applicable information and considerations in any CCWIS modernization, but it will also incorporate the same for the unique needs of DCFS, to include its hybrid child welfare administrative structure and the inclusion of juvenile justice functionality.

This deliverable will first describe the national landscape as related to states' commitment to CCWIS modernization and the progress states have made toward CCWIS compliance. Next, market research will examine various procurement strategies which will be described along with examples of states' approaches used to better understand how state child welfare programs are approaching the modernization process. Then the analysis will take a closer look at five (5) states to elaborate their solutions currently in design or operation in more detail to explore their specific circumstances, and then interview results will also be shared for two (2) other states to articulate their considerations and choices throughout their modernization experience, including lessons learned. These states were chosen to offer a mix between operations size, administrative structure, and geographies. Finally, this deliverable will provide an understanding of the solution approaches available. An analysis will be presented throughout to articulate benefits and challenges for each component of the solution approach at hand, and how those impact the system implementation process and outcomes.

## Purpose of this Deliverable

The purpose of Deliverable 3.5.3.6, Alternatives Analysis, is to articulate and synthesize key aspects associated with large and complex modernization efforts such as the one that DCFS is embarking on. This deliverable summarizes key findings from the research conducted by KPMG on topics relevant to DCFS and the specifics of the UNITY Modernization effort. While this deliverable does not prescribe the path that DCFS should choose, it is meant to provide background information and data points that DCFS can consider in making informed decisions to an end goal of aligning the solution with DCFS' goals for modernization. Key underpinnings to understand the nature of each alternative and their alignment with DCFS needs are grounded in an analysis of the approaches in the current landscape for child welfare systems across the country. This will include the description of current state procurements, approaches to modernization, and CCWIS solutions.

To inform the research conducted for this deliverable, KPMG relied on its understanding of DCFS programmatic and IT modernization vision, its priorities, readiness to achieve that vision, as well as our understanding of the CCWIS scope and market and our collective experience of supporting implementation efforts in multiple states.

## Goals for this Deliverable

The primary goal of this Deliverable is to serve as an informational artifact for DCFS in its pursuit of the CCWIS modernization effort. It is the intention of this deliverable to present key market information that can maximize DCFS' potential to make informed decisions regarding subsequent steps in the UNITY Modernization, and particularly those related to procurement and implementation efforts.

This deliverable is intended to provide a high-level summary on the following:

1. CCWIS approaches and solutions across the country
2. CCWIS procurement strategies used in other states
3. Lessons learned from other CCWIS implementations
4. General guidelines for consideration with respect to each approach and how they may enhance, meet, or limit DCFS's ability to achieve its ambitious modernization goals.

# Executive Summary

The CCWIS modernization journey is an endeavor meant to propel data-driven decision-making to the forefront, bolster and enrich interagency collaboration, and ultimately, improve the lives of vulnerable children and families. This is no small feat but certainly aims at a deeply meaningful outcome.

The complexity of achieving these aims is significant. It is likely impossible to overstate the criticality, then, of a thoroughly vetted plan to address every phase of the process. Planning is essential to align a solution approach with CCWIS requirements and DCFS goals, and to do so within the timeline and budget desired. This deliverable presents research findings most central in preparing DCFS to do just that.

The most important aspect in driving towards a successful implementation is a clearly defined vision and goals at the outset. This is the center around which everything else is built, and the most central element that anchors all other decisions moving forward. Overlooking this aspect leaves the project more vulnerable to risks such as misaligned procurement approach, disjointedness between the vendor and DCFS, a solution approach that does not accomplish the goals, stakeholder dissatisfaction, and a timeline and cost that exceeds the state's expectations.

We know this because these issues and more have presented themselves across the CCWIS landscape for states that have been already focused on the CCWIS modernization. There is quite significant information available from which to draw conclusions since nationally, 48 state jurisdictions are in different stages of their CCWIS modernizations with goals to drive toward compliance. And, while the Administration for Children and Families (ACF) reported in October 2024 that no solutions so far were fully operational, KPMG has knowledge that at least four (4) states have operational systems including Maine, Delaware, Idaho, and West Virginia. Further, ACF reports that seven (7) states are in Development and Operations (Dev-Ops), another 18 are in development, and ten (10) are in planning or development.

From the experiences of states in some stage of CCWIS modernization, from research, and from KPMG's participation in and knowledge of the industry, we crystalized the following lessons learned to guide DCFS in their planning informed by others' challenges:

## 1. Strategic Intent

- a. Refine the mission and vision shaped by agreed upon priorities; set clear goals. Be bold and innovate in defining a future vision to energize the organization.
- b. Create clear linkage between the vision and how modernized UNITY needs to support it. Assure that DCFS has programmatic alignment not only as an entity, but also between the future operations envisioned and the functionality necessary to achieve it.
- c. Define clear and measurable goals for the UNITY Modernization effort.
- d. Consider strategic drivers when deciding on expanding the scope of the core system or adding other modules. Deploy a structured and comprehensive planning process across all functionalities included in scope to determine feasibility, cost implications, strategic benefits, implementation solutions and approaches and most appropriate procurement strategies.

## **2. Project Management Planning**

- a. Secure dedicated staff, making sure to include subject matter experts on the state side and the vendor side as much as possible.
- b. Identify a strong leader (or leaders) who fully grasps the vision for the project, their role in supporting the larger DCFS' vision and who can be involved day to day in keeping the project on track. Key is empowering this/these leader(s) to make timely decisions to realize project goal attainment, programmatically as well as cost and timeliness.
- c. Include a robust Organizational Change Management (OCM) plan which is strategically scheduled to start early and to support throughout.
- d. Engage a third-party technical advisory vendor or project consultant. This offers support in assuring that the vendor and state teams are on track.

## **3. CCWIS Readiness Planning**

- a. Spend ample time in the planning process, assessing readiness, making or preparing for desired programmatic or business process changes, cleaning data, standing up data governance, and laying the baseline for OCM.
- b. Develop a clear and thorough data conversion and data quality plan early.
- c. Prioritize planning for the inclusion of Family First Prevention Services Act (FFPSA) and associated functionality.
- d. Consolidate a comprehensive list of all interfaces, reports, analytics, forms used that will continue to be used. Think strategically through the operational and functionality changes desired for each of them.
- e. Confirm scope of the CCWIS project and make well-informed decisions as to what is included and hold firm as to what is not included.

## **4. Procurement**

- a. Engage third-party input on the procurement
- b. Keep open lines of communication between DCFS and the vendor community before and after procurement.
- c. Partner with the Procurement division to ensure that the procurement process reflects the specific needs and requirements of the program alongside the alignment with procurement policies and procedures that the Procurement department is responsible to enforce and offer guidance on.

## **5. Vendor Evaluation and Selection**

- a. Develop evaluation criteria before procurement.
- b. Employ a diverse vendor evaluation committee that includes both technical and program expertise.
- c. Conduct vendor demonstrations to observe the solution offered.

## **6. Solution Approach**

- a. Review the priorities and guiding principles developed in DCFS's vision and goals to help guide these decisions.
- b. Weigh the benefits and challenges carefully.
- c. Identify the best deployment strategy, keeping in mind that recently, several states have begun with a phased approach but later changed to Big Bang.



- d. Evaluate the health and capability of your Legacy system to understand what it can support to help inform this decision.

## **7. Implementation**

- a. Be aggressive in identifying and managing risk. It is believed in the industry that, “the single biggest risk to any project is the failure to identify and manage risk honestly and effectively.”<sup>30</sup>
- b. Avoid the temptation to be overly aggressive in planning timelines.
- c. Deploy strong vendor management strategies and ensure vendors deliver to contract and Service Level Agreements (SLAs).

Leveraging its understanding of the current CCWIS market and lessons learned, DCFS should first refine its CCWIS vision and goals as shaped by aligned priorities across stakeholders and within the organization. Then DCFS should carefully consider and plan the procurement strategy and solution approach best suited to meet its goals. Procurement strategies should allow for DCFS to attract well-suited vendors, open communication from beginning to end, include vendor demonstrations, and have a well-defined evaluation process.

Solution approaches must be determined by carefully considering the four (4) Key Elements comprising a solution approach: Infrastructure, Software, Deployment, and Service Model. These choices are made simpler by using an aligned, clearly defined vision and goals shaped by agreed upon priorities. With those underpinnings, reviewing the benefits and challenges associated with the varying options in each of the four Key Elements, DCFS can more easily follow a path of decisions to arrive at the best solution approach for Nevada.

# Approach

The approach for this deliverable was to conduct reviews of multiple sources, leveraging a multitude of techniques and tools that allow for painting a comprehensive overview of the market, solutions and experiences that others had in focusing on similar modernization scope.

In addressing the ask for this deliverable, we conducted a review of status of the CCWIS modernization efforts on the national landscape, followed by a review of the current procurement strategies seen in the market. To ground our findings, we discuss selected real-world examples of what states are doing with respect to:

- procurement strategies by highlighting key experiences from three (3) states and
- solution approach by highlighting key experiences in five (5) states.

Additionally, we conducted targeted interviews with two (2) states to obtain deeper insights into their experiences and lessons learned.

## Approach for Conducting the Federal Scan

KPMG conducted a scan of the national landscape of states' commitments and progress towards attaining CCWIS compliant systems, a comprehensive review of publicly available sources including:

1. CCWIS Status of Child Welfare Information Systems as published by ACF
2. Multiple CCWIS documents published by ACF
3. State documents and reports
4. Publicly available data on procurements (e.g., GovWin)
5. States communication and presentations at various conferences where CCWIS was discussed.

Information gathered through this research was crosschecked with information available through our KPMG collective experience and expertise in Child Welfare as well as via direct conversations that our larger team of Child Welfare experts have conducted with various states and jurisdictions across the country.

## Approach for Documenting Current Procurement Strategies

To provide an understanding of the procurement strategies on the market for states as they seek to accomplish CCWIS compliance, KPMG conducted a comprehensive review of publicly available data correlated with information available from GovWin. In addition, we drew from the knowledge and expertise of our KPMG Child Welfare subject matter professionals that have knowledge – at times firsthand – of procurement strategies deployed around the country.

To gain a more in-depth snapshot of vendor solicitation strategies in the country, we focused on analyzing four (4) procurements. In selecting these cases to highlight, we looked for a good mix of procurements aligned with states 1) currently in different stages of the CCWIS development; 2) that deployed different procurement strategies; and 3) that have one or more characteristics in common with Nevada DCFS. In conducting this in-depth analysis, KPMG considered whether states were state- or county-administered, the size of the child welfare population (by proxy of “number of youth in foster care”), and geography.

## Approach for Documenting State Approaches and Solutions

To provide a high-level assessment of states that have recently undergone or are undergoing a CCWIS modernization project, KPMG conducted research leveraging:

- industry resources (websites, articles)
- KPMG's direct experience from our work across the nation
- in-depth, direct interviews with states on their journey through CCWIS modernization.

### Rationale for Selecting States to Highlight

Starting with preliminary information gathered as part of the Federal Scanning effort, we reviewed a larger grouping of states and then narrowed that down based on multiple criteria amongst which:

- 1 Various approaches to their CCWIS solution and procurement (e.g., status quo versus procurement, open versus prescriptive procurement)
- 2 Far along enough in their CCWIS development to allow for a robust experience and lessons learned
- 3 have one or more characteristics in common with Nevada DCFS (size assessed by the number of youths in foster care as a proxy, geography, prioritized functionality, state- or county-administered).

## Approach for Documenting Current CCWIS Solutions

To understand current CCWIS solutions, KPMG conducted research in reputable industry resources (websites, articles). We again drew from the knowledge we have gained in our involvement in the child welfare domain as well as participation in national trade association forums and conferences including the Human Services IT Advisory Group (HISITAG), Child Welfare League of America (CWLA), the American Public Human Service Association (APHSA), and that APHSA Information Technology Solutions Management for Human Services (ISM).

## Approach for Documenting Modernization Lessons Learned

A well-rounded perspective is important when working to leverage other states' lessons learned from similar efforts. To provide that, KPMG synthesized lessons learned from research, interviews with selected states, and KPMG knowledge. The sources for each area include:

1. **The research.** KPMG conducted research in reputable industry resources (websites, articles).
2. **The interviews.** KPMG conducted in-depth interviews with 2 states at different progress points in their CCWIS journey, aiming at attaining lessons learned and the context surrounding them for a more thorough synthesis of the lesson learned, how it was learned, and the context surrounding it
3. **The KPMG knowledge base.** KPMG pulled from its extensive experience in the child welfare space to offer lessons learned as observed by KPMG and/or as reported to KPMG. Additionally, information was included that is KPMG-gathered knowledge gained in its involvement in the current market in child welfare domain as well as participation in national trade association forums and conferences including the Human Services IT Advisory Group (HISITAG), Child Welfare League of America (CWLA), the American Public Human Service

Association (APHSa), and that APHSa Information Technology Solutions Management for Human Services (ISM).

### **Approach for Documenting Interviews with States**

To provide an enriched understanding of what other states are doing to address CCWIS compliance in all phases (planning, procurement, approaches, development, design, lessons learned), KPMG conducted in-depth interviews with three states on their journey through CCWIS modernization.

The states prioritized for these in-depth interviews were selected based on multiple criteria that considered candidates that would offer insights into:

1. Various stages or progress points of CCWIS development
2. Different approaches to CCWIS
3. Approach and decisions made by states that have at least one characteristic in common with Nevada (i.e., geography, administration model, number of youths in foster care as a proxy for size).

The information learned from the interviews was then infused in its respective sections within this Deliverable. Those sections include:

- 1 State Approaches and Solutions
- 2 Modernized Lessons Learned

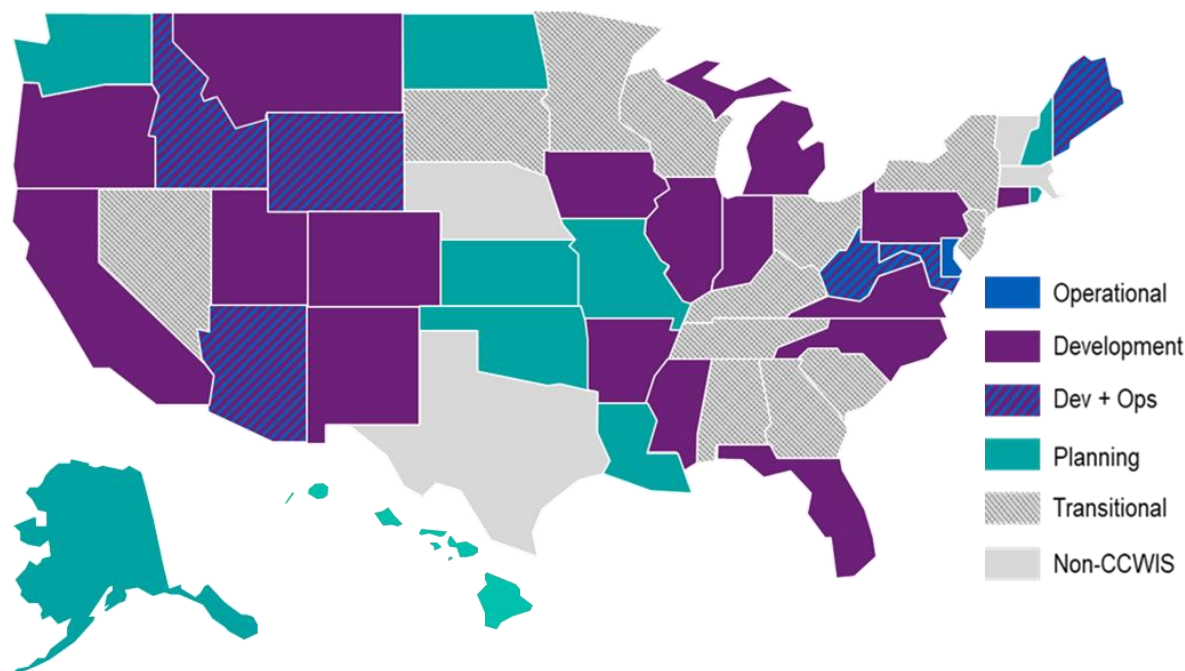
## Federal Scan Findings

The Comprehensive Child Welfare Information System (CCWIS) modernization has been a significant focus for many state and tribal child welfare agencies across the United States since it was first announced by the Administration for Children and Families (ACF) in 1993.

The initiative aims to replace or update the outdated monolithic Statewide Automated Child Welfare Information Systems (SACWIS) with modern, flexible, and interoperable systems that better support case management, data reporting, and overall child welfare practices. Another major goal of this initiative is to allow for interfaces between the various related state and federal systems. ACF continues to provide guidance, funding, and technical assistance to states transitioning to CCWIS to support their efforts to develop systems that meet federal requirements and enhance service delivery. The goal of CCWIS modernization is to improve outcomes for children and families in the child welfare system. Modernized systems aim to provide better case management tools, improve data-driven decision-making, and ensure compliance with federal and state regulations.

### CCWIS Status Across the Country

Many states are at various stages of planning, procurement, development and implementation of their CCWIS projects. Some states have gone live with their new systems or portions of new systems, while others are in the development or planning phases. The map below confirms that as of October 2024, 48 of the 52 state jurisdictions in the country have, minimally, declared their commitment to transition current child welfare information system to a CCWIS<sup>1</sup>.



Of the 48 states committed to CCWIS modernization, it is noteworthy that, according to ACF in October 2024, none are fully operational. Though, despite this ACF report, KPMG has

<sup>1</sup> CCWIS Status | The Administration for Children and Families, Accessed 10-1-24.

knowledge that at least four (4) states do have operational systems including Maine, Delaware, Idaho, and West Virginia. These states are known to be currently undergoing review for CCWIS compliance. With no state having already completed the CCWIS certification process, we can conclude that, to date, there is no known case of a fully certified CCWIS solution currently in production. Thus, also to date, there is no “tried and proven” “certification path” to serve as the “northern star” for states that are not so far down the road in their CCWIS journey.

Promising outcomes are ahead, with ACF reporting that seven (7) states are in Development and Operations (Dev-Ops), other 18 in development, and ten (10) in planning or development.

An important point to note is that ACF does not report on the progress of some states, mostly because these states are funding their CCWIS efforts from other (non-ACF) sources and grants (e.g., American Rescue Plan Act (ARPA) grants). One of the most notable examples is Tennessee (TN). ACF is reporting their New System Stage as “N/A”, which, by ACF’s definitions means that “the state or tribe does not plan to build a replacement system at this time”<sup>2</sup>. This contrasts with what KPMG knows, which is that Tennessee is currently in design and development of their CCWIS implementation.

Another important distinction to make is related to states that have chosen to modernize their existing SACWIS systems rather than going the acquisition route, often referred to as the “status quo approach”. Some of these states are New York, New Jersey, and Wisconsin. Such options are state driven and involve decisions around the state’s ability to conduct the necessary enhancements without ACF CCWIS funding support as well as state’s confidence in their technology and solutions, and their ability to sustain operations for years to come.

## **Beyond the Immediate ACF Guidelines**

### **1. Compliance is a goal, but should not be the only one**

As of this writing, several states have operational modernized child welfare systems, including Maine, Delaware, West Virginia and Idaho. To the best of our understanding through conversations with states and ACF, no state has yet been deemed by ACF to be a fully compliant CCWIS system. The process to become compliant is iterative and lengthy and, while compliance and the associated federal support is critical, it should not be the sole aim of any state’s child welfare modernization.

ACF provides guidance to states in various formats, and each state has an assigned specialist to support them through the process. States should utilize these supports, communicate with ACF as required, and follow ACF guidance and build modern systems that meet the needs of their staff, leadership, and the children, families, and communities they serve.

### **2. Data Sharing and Interoperability with a purpose**

The CCWIS rules put forth by ACF require states to include several interfaces between CCWIS, federal agencies, other related state agencies, and the provider community. Some of these interfaces were required with SACWIS systems, and states have already developed data sharing agreements. Others are new and those relationships and data sharing agreements will need to be developed and built for CCWIS. CCWIS interfaces put forward by ACF include:

- a. Required, if applicable

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<sup>2</sup> CCWIS Status | The Administration for Children and Families, Accessed 10-1-24.

- Systems generating the financial payments and claims for title IV-B and IV-E
- Systems operated by child welfare contributing agencies
- Each system used to calculate on or more components of title IV-E eligibility determinations
- Each system external to CCWIS used by Title IV-E agency staff to collect CCWIS data

b. Mandatory:

- Child abuse and neglect systems
- Systems operated under Title IV-A of the Act
- Systems to determine Medicaid eligibility
- Medicaid Management Information Systems
- Systems operated under Title IV-D of the Act
- Systems operated by the court(s) of competent jurisdictions over Title IV-E foster care, adoption, and guardianship programs
- Systems operated by the state or tribal education agency or school districts or both

c. Optional

- Social Security Administration, Law Enforcement, other state or tribal agencies.

### 3. Diverse Cost and Funding Models

Most states are modernizing their child welfare systems using a combination of federal IV-E dollars along with the required state match. At least one state (Tennessee) is using ARPA dollars to modernize. While modernizing child welfare systems will require states to make a large investment, if planned and built thoughtfully, it can result in savings through greater efficiencies and lower annual costs of ownership.

### 4. Technology and Infrastructure: decisions driven by state's needs and goals

Information on the technology stack, including what platforms, tools, and vendors other states are using, can be very helpful for states as they plan their own CCWIS journey. Learning about cloud-based solutions, mobile access, and integration capabilities can aid in choosing robust and scalable technologies.

ACF provides several tools to assist states to understand the myriad technology solutions on the market today and determine the best approach for their state child welfare agency. ACF does not dictate a particular solution. Rather states must decide first what is important to them and allow their goals and needs to guide them.

### 5. User Experience and Training more than “check the box”

The degree of user-friendliness for caseworkers and administrators as well as training programs, user support, and feedback mechanisms from caseworkers are critical aspects to consider. “A system’s value, usefulness, and success largely hinge on how

Strong User Experience (UX) design moves beyond compliance “box checking” and incorporates an understanding of the diverse individuals who interface directly with the system and the populations impacted by the system’s use. The goal of UX design is to implement user-friendly and easy to understand systems that promote effective child welfare practice.

*ACF: CCWIS UX guidance*



users experience it.”<sup>3</sup> An illustration of this is North Carolina’s CCWIS modernization, which started over from scratch after piloting a new system that was not widely accepted by its counties.

Additionally, considering diversity, equity, inclusion, and accessibility (DEIA) factors provides opportunities to better understand program needs and build innovative solutions”<sup>4</sup>.

KPMG’s involvement in the industry has shown that “Child welfare agencies are addressing disparities and inequities by deepening engagement with those with lived, experience, investing in concrete supports, and shifting service delivery upstream to meet the needs of children, families, and communities.”<sup>5</sup>

Also in that vein, ACF’s CCWIS guidance stresses both Human Centered Design (HCD) and engaging individuals with lived experience. Both elements can be built into the role of the system integrator and included in the RFP for that work. Alternatively, they can be led as a separate but aligned effort<sup>6</sup>.

With respect to training, states are also employing both training and Organizational Change Management (OCM) to help assure that child welfare staff and other users are well-acquainted with CCWIS functionality and are looking forward to using it, and that this all results in high user acceptance of new systems. ACF has been stressing the importance of OCM to states as a tool for smooth adoption<sup>7</sup>. “A well-planned OCM strategy is essential for a successful CCWIS transformation, enhancing user acceptance and ensuring that technology serves the real needs of children, families, and communities<sup>8</sup>.”

## **6. Data Quality and Management:**

Of great importance is maintaining data quality, integrity, and security. This means planning for methods for data entry, verification, and cleaning, as well as compliance with data privacy laws.

Not surprisingly, ACF places a strong emphasis on data quality, integrity, and security through its CCWIS guidance. Each state must develop, implement, and maintain a CCWIS data quality

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<sup>3</sup> <https://www.reginfo.gov/public/do/DownloadDocument?objectID=111697801>, Accessed 10-1-24.

<sup>4</sup> User Experience Self-Assessment Tool, OMB # 0970-0568, [https://www.acf.hhs.gov/sites/default/files/documents/cb/ccwis\\_user\\_experience\\_self\\_assessment\\_tool.docx](https://www.acf.hhs.gov/sites/default/files/documents/cb/ccwis_user_experience_self_assessment_tool.docx) Accessed 10-10-24.

<sup>5</sup> KPMG Point of View: Is resistance to change impeding child welfare systems modernization? <https://kpmg.com/kpmg-us/content/dam/kpmg/pdf/2024/child-welfare-system-modernization.pdf>, Accessed 11-1-24.

<sup>6</sup> Engaging Lived Experience to Strengthen Comprehensive Child Welfare Information Systems, Children’s Bureau Express, [Engaging Lived Experience to Strengthen Comprehensive Child Welfare Information Systems—March 2024 | Vol. 25, No. 2](#), Accessed 10-11-24.

<sup>7</sup> Comprehensive Child Welfare Information System News—December/January 2024 | Vol. 24, No. 10, Accessed 10-10-24.

<sup>8</sup> KPMG Point of View: Is resistance to change impeding child welfare systems modernization? <https://kpmg.com/kpmg-us/content/dam/kpmg/pdf/2024/child-welfare-system-modernization.pdf>, Accessed 11-1-24.



plan and include that plan in the Advance Planning Documents (APDs) submitted to ACF. The plans must include a strategy to promote data quality<sup>9</sup>.

Some states have failed early on to understand the importance of data quality to their modernization projects. This has resulted in delays and the need to later address data quality. In California on their most recent CCWIS project, the importance of accounting for data quality and management was not realized until well into the Software Development Lifecycle (SDLC). The project suffered timeline and cost setbacks as a result, while also having to assume the burden of data mapping and other data quality issues (most especially data conversion planning) simultaneous to the other activities underway on the SDLC. Other states, like Tennessee for example, identified its most urgent data quality issues prior to publishing the RFP for a System Integrator (SI). The state is now undertaking data clean-up while simultaneously putting in place a data governance structure to reduce future data quality issues.

## **7. Strong Project Management and Organization Change Management are key to success**

When considering challenges with implementation, it is important to think about project management practices, stakeholder engagement, and change management and avoid only considering aspects of the direct implementation itself. Lessons learned from other states' implementations, including common challenges and the strategies used to overcome them, are valuable in this realm.

California had two unsuccessful attempts at CCWIS modernization prior to their third and current effort, and ineffective project management was partly to blame. To solve for this, California created a third procurement, this time building in a specialized vendor to oversee project management as a sort of checks and balances, as well as a Product Value Services (PVS) vendor to support the flow of project management (amongst other responsibilities).

As previously described, North Carolina opted to start their CCWIS modernization over when the initial piloted system was poorly received by stakeholders and rejected. Again, this helps to underscore the importance of establishing and maintaining stakeholder engagement from the very beginning until the very end, and the importance of establishing an OCM to address change management needs with stakeholders throughout the CCWIS modernization.

## **8. Focus on Performance Metrics and Outcomes**

Insight into how other states measure the effectiveness and impact of their CCWIS on child welfare outcomes. This can include metrics, reporting tools, and processes for continuous improvement.

It has been reported by states who are operational or in dev-ops status that ACF is paying particular attention to measuring the effectiveness and impact of their CCWIS on child welfare outcomes. States in the early stages should pay particular attention to this measure, speak to their ACF representatives about measuring impact and effectiveness, and follow any new ACF guidance as it is issued.

During KPMG's interview with California, they emphasized the importance of choosing solutions that allow not only sophisticated data and reporting to enrich performance metrics and outcome

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<sup>9</sup> CCWIS Data Quality Plans, Children's Bureau, Jan. 29, 2019, [CCWIS Data Quality Plans Webinar](#), Accessed 10-10-24.

measures, but also that provide workers with assessment tools that are progress oriented. An example given was family and child visitation. California stressed the importance of selecting a solution that allows for a tool that each worker can use to assess family and child visitations in terms of attendance, participation, and quality of visit. Further, they suggested not only using this assessment information at the case level, but also using it in aggregate ways.

## **9. Know your policy and where there could be flexibilities**

Regulatory and policy considerations are front and center in terms of importance. Thinking about aligning CCWIS development with state statutes and regulations, Federal policy and requirements, and influencing policy through data insights is critical. Awareness of how states have navigated legal and policy landscapes can provide helpful direction.

Through our involvement in the industry, we are aware that states consistently state their need for flexible, responsive solutions that will allow them to be nimble in their system's adaptation to changes in policy (local, state, and Federal), as well as its downstream impacts to business needs, workflows, and reporting. In KPMG's interview with California, one of the primary recommendations they emphasized was to be sure to know the policy, to know what is a "must" and where there is discretion, and to know down to the field level where that policy is reflected in the system. To that end, California stressed the importance of making sure that the system is a true reflection of policy.

# Current Procurement Strategies

With most states committed to developing a CCWIS, it is important to understand the procurement and vendor solicitation strategies that states are deploying across the nation. We have included an analysis that looks into the procurement approaches taken by states that have chosen to enhance their SACWIS systems by soliciting outside support. Understanding what other states are doing and what has worked (or not worked) for them will benefit DCFS by identifying common approaches that child welfare programs employ in today's market amongst vendors. While Nevada is unique and does not need to follow in the path of any state, there will be takeaways and lessons learned by other states that might benefit Nevada in its modernization journey.

## Singularity versus Modularity<sup>10</sup>



Recently, most child welfare programs have opted to take the traditional procurement route (i.e., Tennessee, Florida, California), which entails issuing a singular procurement covering all aspects of the CCWIS solution. This path most often leads to a large, multi-million-dollar contract awarded to a single vendor. Benefits of this approach include leveraging the vendor's accumulated subject matter expertise, the various technical assets it brings, and the sophisticated delivery methodologies that reflect lessons learned over many years and complex projects.

Though, there are some challenges with the traditional, single procurement-single vendor approach. While a single vendor simplifies certain aspects, it also makes the success and failure of such large modernization efforts to rest on the shoulders of a single vendor. By staking every facet of a complex project on one vendor, the state may also expose itself to significant budget, timeline or scope related risk. While not necessarily causal, we have noticed that many large single-vendor projects have exceeded their budget or timeline. In addition, large firms, which tend to be risk-averse and legally sophisticated, may well have negotiated away contractual protections the state wished it had once a project gets into trouble. Some non-financial challenges are that a single vendor can stifle innovation and in addition to inhibiting new approaches, may also result in implementation approaches that are not fully aligned with the intention of the state.

An alternative to a single vendor is a modular approach, which focuses on multiple procurements and/or multiple vendors to develop and deliver non-comprehensive (individually) CCWIS functional areas called modules.

By having multiple vendors and modular areas of functionality, states can, in theory, optimize project design for agility and interoperability. This is because a selection of vendors with specific expertise is expected to lead to a higher quality and more efficient execution of each segment of

Our research revealed that at least some states have chosen to go the Singularity route though there are example of procurements that - at least initially, have started as Modular procurements (e.g., FL where dedicated procurement was conducted for first module: Intake).

<sup>10</sup> [Goals | Guideposts | Constraints / CCWIS |](#), Accessed 10-11-24.

the scope. A modular approach distributes risks across multiple vendors and might also help states avoid prolonged development efforts and vendor lock-in. It also allows for greater flexibility in project management as each scope item can be executed independently. Innovation may be improved, and risk is shared between multiple vendors.

As an alternative, we have seen procurement strategies that combine the “singularity” and the “modularity” aspect in one strategy where the state is issuing one RFP but that includes multiple scopes with the intention of making multiple awards. This approach streamlines the procurement process by leveraging economies of scale, reducing administrative overhead, and ensuring that the best-suited vendors are selected for different aspects of the work. Such an approach allows for specialized vendors to be selected for different aspects of the project, optimizing the quality and efficiency of work. It also distributes risk across multiple vendors, reducing dependency on a single supplier and mitigating the impact of potential performance issues.

### No RFI versus RFI



The pairing of Requests for Information (RFI) and Requests for Proposal (RFP) is one of the most common procurement strategies utilized.

The RFI is a document issued by the state to solicit information from vendors, usually early in the process and before the issuance of an RFP. It is part of an informational effort conducted by the state in order to understand available solutions, market capabilities, and, from there, inform any refinements that need to be made to project requirements. The primary benefit of investing time and effort into an RFI process is that it allows the state to develop a more targeted RFP process down the line by allowing for incorporation of key feedback and insights into the final RFP package. The RFI questions and responses received from the vendor community can be used to evaluate the feasibility of prospective vendors to meet CCWIS requirements and support the state’s business objectives during implementation and operation. The vendor responses can also be used to enhance the final version of the RFP procurement and supporting materials with the expectation that such enhancements lead to more relevant and informed proposals from vendors.

While coupling the RFP with and RFI conducted in the earlier phases is a common procurement strategy, it is also very common to omit the RFI process and simply proceed with the RFP. This strategy is deployed by states that already have a good understanding of the market and relationships with vendors. States in this situation might not see the benefit of going through a rigorous RFI process that requires time and effort to prepare, support, and evaluate.

### No Vendor Demo versus Vendor Demo



In parallel or in addition to the RFI effort, our research has shown that multiple states have conducted vendor demonstrations as part of the pre-RFP or the RFP vendor selection process. In our interviews with various states or from our direct experience on the market, all states that conducted these vendor/solution demos considered them to be instrumental to their understanding of the proposed solutions and an exercise in enhancing their own requirements, procurement documentation and greatly informing their vendor evaluation / scoring approaches.

Demos are a quick and quite comprehensive way for a state to get an understanding of the “art of the possible” for a modernized CCWIS. As reiterated in our Lessons Learned, states seem to credit the following best practices for their vendor demo effort success:

- Plan on a diverse (and consistent vendor to vendor) audience that includes a mix of actual users of the system, team leads, leadership, technical resources
- Provide an observation / scoring sheet that offers guidelines on what might be expected from each state participant.

The State of Florida conducted vendor demos prior to their CCWIS RFQ as well as vendor demos during the vendor selection process. The pre-RFQ demos were integrated into a “Vendor day” event open to entire vendor community. The demos conducted during the vendor selection process were limited to responding vendors and did not include a scripted ask from the state.

## Prescriptive versus Open Ended Procurement



A prescriptive procurement strategy refers to a detailed and specific plan designed to achieve optimal procurement outcomes by closely defining and directing the procurement activities of an organization using explicit recommendations and guidelines for actions to take to achieve desired objectives.

The open-ended procurement approach reflects a more flexible and adaptive approach, where specific guidelines and actions are not rigidly prescribed. It is characterized by its emphasis on responsiveness and innovation rather than strict adherence to a predefined set of actions.

## Procure versus Status Quo



### State Use Case: *Wisconsin*

State of **Wisconsin Department of Children and Families (DCF)** has approximately 7,000 children and youth in foster care and, similarly to Nevada, operates a hybrid child welfare system. Wisconsin DCF published an RFI on May 15, 2017 to solicit information to assist in an assessment of the feasibility of updating DCF's then-current SACWIS-compliant system, or transitioning to a new system to meet CCWIS rules. DCF expressed the desire to explore CCWIS rule-compliant technology options to facilitate their decision-making process. Ultimately, it was decided that Wisconsin would transition to CCWIS compliance. Notably, DCF published an RFI on April 17, 2018 for a Juvenile Justice system of record that would fully integrate with child welfare's SACWIS.

In the status quo procurement strategy, the state chooses not to procure a new system and, instead, is focused on making needed upgrades to its legacy/SACWIS system to bring it into CCWIS compliance. On this strategy, bringing the legacy/SACWIS system into CCWIS compliance is necessary to obtain Federal funding for this effort or for any part of the updated system use in future. In addition to Wisconsin, there are several other states including New Jersey, New York, and Colorado that have chosen to modernize their legacy/SACWIS systems rather than procure new.

### Non-Competitive versus Competitive Procurement



While a non-competitive procurement process (e.g., via a Master Service Agreement (MSA)) might accelerate and, at times, simplify the process there are other considerations that should not be overlooked. Procurements of CCWIS-related tools and systems need to follow federal procurement standards and guidelines including "maximum practical free and open competition regardless of whether the procurement is formally advertised or negotiated". As such, States looking for ACF funding to support CCWIS efforts, have a considerable incentive to deploy competitive procurements that might take longer, but are more aligned with the federal guidelines.

### No Juvenile Justice versus Support for JJ



When integrating Juvenile Justice (JJ) functionality into the CCWIS, there are several decisions that States need to consider and prepare for:

- 1 What kind of CCWIS – JJ integration is desired and to which degree
- 2 Scope of the JJ functionality that is decided to be integrated within CCWIS
  - Support for JJ Case Management + Prison Reap Elimination Act (PREA) only
  - Full JJ functionality (e.g., including facility and asset management).
- 3 Impact on cost and the business case

#### 4 Impact on funding streams / increase complexity of the funding applications.

States desiring to apply for ACF funding for CCWIS that includes scope for JJ (limited or full) should consider and plan for the financial implications of doing so. In part these are related to ACF providing a smaller percentage<sup>11</sup> of funding toward programs defined as non-CCWIS cost allocations (juvenile justice being one) and categorizes juvenile justice as child welfare related<sup>12</sup>.

#### Cost Allocation for non-CCWIS

Cost allocation regulations generally require that benefiting programs pay costs proportional to the benefits the programs receive (45 CFR 95.631). Therefore, there is either a diminished or no federal share (at least through the title IV-E program) for non-CCWIS eligible

As of now, we are not aware of any state that has or is working on embedding or fully integrating their CCWIS and JJ (full functionality). Though, at least two (2) states: Arkansas and Tennessee, are including limited JJ functionality in their CCWIS. Notably, Tennessee is currently drawing funding from ARPA, which, from the perspective of ACF funding of non-CCWIS does not have the same funding implications as it would if they were funded through ACF.

#### State Use Case: *Arkansas*

**Arkansas Department of Human Services**, a state-administered child welfare system with approximately 3,500 children and youth in foster care, published an RFP on April 6, 2020 for a complete replacement of their SACWIS legacy, CHRIS, with a CCWIS. At the time of the RFP, their legacy system had already been in use for almost 20 years. The total term of the contract was stated to be no more than 7 years.

While Arkansas' juvenile justice system has some functionality included in CHRIS, any functionality associated with juveniles placed in facilities was provided in a separate system outside of CHRIS. The state included OCM along with systems implementation in the scope of their RFP. The state did not prescribe a deployment plan. They did state a preference to host applications "in-house", and to "own and manage all of the network infrastructure but that they would be interested in hearing the vendor's perspective as to whether there is value in having a vendor-hosted solution instead."

Arkansas awarded a contract for a purpose-built solution in late 2020 and their CCWIS is reported to be in development.

## Other Procurement Strategies

### Stage Gate Process

The stage gate process is a project management approach that structures the CCWIS implementation into distinct phases, each with defined criteria and deliverables that must be approved by DCFS before advancing. This allows for payments to be tied to the successful completion of key milestones, mitigating risks and managing investments effectively.

#### **Benefits:**

**Milestone-Based Payments:** Payments are linked to major Development, Design, and Implementation (DDI) milestones ensuring accountability and high-quality deliverables.

**Risk Management:** Facilitates early identification and resolution of issues, reducing the risk of delays and cost overruns.

**Investment Control:** Enables structured funding aligned with project progress, optimizing state resources.

<sup>11</sup> [Technical Bulletin #5: CCWIS Cost Allocation](#), Accessed 10-11-24.

<sup>12</sup> [Technical Bulletin #5: CCWIS Cost Allocation](#), Accessed 10-11-24.



**Certification Review:** Possibly looking at way to tie final payments to achieving CCWIS certification, confirming system compliance and readiness.

### **Incorporate an Incentive based procurement strategy**

Incentive-based procurement is a strategy used to align the interests of DCFS and the supplier by tying compensation and rewards to the performance and achievement of predefined goals. This approach contrasts with traditional fixed-price or cost-plus contracts by encouraging suppliers to exceed basic contractual obligations and deliver superior performance.

**General Incentives:**

- Performance bonuses for meeting or exceeding targets.
- Cost-sharing arrangements where savings are split between DCFS and supplier.
- Price adjustments based on performance metrics.
- Longer contract durations or increased scope of work.

**Benefits:**

**Enhanced Performance:** Suppliers are motivated to exceed baseline performance metrics, leading to higher quality, innovation, and efficiency.

**Cost Savings:** Aligning supplier incentives with cost-saving measures can result in significant savings for DCFS.

**Risk Mitigation:** Tying a portion of the supplier's compensation to performance can help mitigate risks by aligning incentives with desired outcomes.

**Stronger Partnerships:** Encouraging collaboration and mutual success fosters stronger, more cooperative relationships between DCFS and suppliers.



# State Approaches and Solutions

## Selected State Approaches and Solutions

This section of the document will provide a high-level assessment of comparable states that have recently undergone or are undergoing a CCWIS modernization project. As part of this analysis, interviews with three of the highlighted states were conducted (Tennessee, Florida, California) and findings were included later in the document.

### Wisconsin

Wisconsin and Nevada are the only two jurisdictions in the country that have a hybrid administration. Furthermore, with 7,000 youth in care in a recent year, Wisconsin seems to be comparable in size. Lastly, Wisconsin published an RFI on April 17, 2018, for a Juvenile Justice system of record that would fully integrate with child welfare's SACWIS.

### Maine

Maine has a fully operational CCWIS, but it is not yet deemed to be federally compliant. While smaller in size than Nevada, the system in Maine, built on a Salesforce platform, within the desired timeline and budget.

### Tennessee

Tennessee contracted with Ernst & Young (EY) to obtain high-level requirements for a new system, including both Child Welfare and support for Juvenile Justice Case Management cases (including PREA). They then contracted with KPMG toward the end of requirements gathering for Project Management/Quality Assurance (PMQA) to keep the project on track and in alignment with goals and federal requirements. Soon after, in late 2023, Tennessee put out an RFP through National Association of State Procurement Officials (NASPO). They wanted a cloud infrastructure and a COTS software solution. A Salesforce solution was chosen, and the state is currently in design. In discussion with the selected vendor prior to contract finalization, Tennessee DCS pivoted from a phased deployment methodology to a Big Bang to avoid building interfaces between CCWIS and their fragile legacy system.

The modernized Tennessee system is anticipated to go-live in the late spring or summer of 2026, and is currently 5 months into implementation. One significant challenge for the Tennessee project is that they do not have dedicated staff members and subject matter experts. This causes delays in moving user stories forward, and inconsistency in information provided. Currently, there are some minor delays, but the project is close to its schedule.

Tennessee is building its solution using American Rescue Plan Act (ARPA) funds and, therefore, has not declared CCWIS or begun its associated federal reporting requirements. It is concurrently taking steps to keep its legacy system, Tennessee Family & Child Tracking System (TFACTS), fully operational and able to function as its CW system until such time when the new system is complete. The State is following federal CCWIS guidelines and utilizing all ACF CCWIS planning and development tools and fully intends for its modernized system to be CCWIS compliant when complete.

Topic	Nevada	Wisconsin	Maine	Tennessee	Florida	California
# of youth/ Children in Foster Care	5,000	7,000	2,500	9,500	22,000	46,000
Child Welfare Administration	Hybrid	Hybrid	County	State	County, with all but Intake & Investigations privatized	County
Geography	Southwest	Midwest	Northeast	South Central	Southeast	Southwest
Modernization Stage	Planning	Transitional	Ops	NA per ACF/ In development (de facto)	Dev/Ops	Dev
Solution/ Approach	TBD	Status Quo (modernizing Legacy/ SACWIS)	Open - ended	Open - ended	Open - ended	Prescriptive
Solution, Phasing	TBD	*	Salesforce, Big Bang	Salesforce, Big Bang, originally modular / phased.	Salesforce + Binti + GovConnect, Big Bang after 1 <sup>st</sup> and only module	Salesforce+ Service Cloud+ Government Cloud+ Experience Cloud+ Analytics Cloud including Tableau CRM and Tableau, and MuleSoft+CDI+Amazo n Web Services, Big Bang (after 2 failed attempts to set this project up as a Phased approach)

## Florida

Florida began its CCWIS modernization efforts in 2018 when it contracted with a vendor to conduct a gap analysis and identify the requirements that Florida needs to work on to become CCWIS compliant. In preparation for subsequent procurements, Florida organized a “Vendor Day” event which was open to all interested vendors. This was an opportunity for vendors to demonstrate their solutions and for the state’s stakeholders to learn more about the available options and inform their perspectives going into a procurement effort. After working on its readiness, Florida moved forward with issuing a Request for Qualifications (RFQ) to obtain vendor quotes for their CCWIS modernization.

Florida created clear evaluation criteria for stakeholders in the review committee to assess bidders’ fit with the agency vision and goals and made sure that this committee was diverse and represented skills from around the agency.

Florida determined at the onset that they wanted a modular approach for their CCWIS, meaning that modules would be divided by functional areas and then released for procurement one module at a time. As they launched their first module procurement, Florida made a conscious decision to not specify a platform preference for that module, thus leaving it open for all vendors to submit. Once the bids came in and went through the rigorous evaluation process set forward prior to the launch of the procurement effort, Florida opted to go with Salesforce and, in 2022, awarded the System Implementation (SI) role to Deloitte.

Once the agency moved into implementation, limitations were quickly discovered with the requirements gathered back 4 years before (about 2018). Apart from being a bit too high level, and at times, incorrect, by 2022 these requirements were already dated. The project forged ahead but fell behind schedule. One year into it, Florida decided to rebid the project, again as an open procurement but, this time, they decided to set the procurement up for the entire rest of the system and not as a modular (one module at a time) approach. This was a competitive procurement that was awarded, again, to Deloitte. With that, Florida is projected to have their entire CCWIS system on a Salesforce platform but, due to the historic approach, have a modular deployment approach for the first module and a big bang for the rest.

To keep the project on track, Florida decided to switch the Project Management Office (PMO) responsibilities away from a previous vendor and awarded that role to KPMG in November 2023. Understanding that the project needed a strong layer of strategic services around the System Implementation vendor, Florida decided to award other strategic services to a mix of vendors: Organization Change Management (OCM) and Requirements support to KPMG (starting January 2024) and IV&V to CGS Systems International, LLC.

The CCWIS implementation is currently in its third year in Florida and has a planned rollout date of June 2026. The project tracks on tracks on time currently.

## California

California is in its third attempt to replace its legacy system with CCWIS. In its 10<sup>th</sup> year now, California has decided to move towards a big bang approach for its third (current) attempt and away from a phased approach. Some of the reasons for abandoning the previous phased approaches had to do with cumbersome customizations and unfeasible approach for phasing

the functionality. The current CCWIS project is proving the most promising and is in Development with a planned go-live date in October 2026.

CA issued its CCWIS RFP on February 25, 2021, and work began with vendors in June 2021. Their new CCWIS is named CWS-CARES and utilizes Salesforce (including multiple Salesforce licensed products such as Service Cloud, Government Cloud, Experience Cloud, Analytics Cloud including Tableau CRM and Tableau, and MuleSoft) and CARES Data Infrastructure (CDI) hosted on Amazon Web Services (AWS) infrastructure.

Based on lessons learned, California undertook the Big Bang deployment methodology in their current CCWIS effort. To deliver their CCWIS, California solicited the services of four (4) different types of vendors:

### **1. Product Value Services (PVS)**

PVS vendor is focused on CARES Business Architecture (BA) and provides research, service design, user experience design, business (primarily rules) analysis and data science expertise to Product Delivery Teams (PDT) and fulfill two key responsibilities:

- Represent and advocate for the State's program goals for CARES; and
- Align the Product Roadmap with program goals (product value) and CARES Product Development Guiding Principles.

### **2. PaaS Systems Integrator (PaaS SI)**

The PaaS SI vendor is focused on CARES Solution Architecture and delivery. This vendor provides product strategy, architecture, engineering and (Salesforce-focused) design expertise to Project Delivery Team (PDT) and fulfill three key responsibilities:

- Primary system integrator delivering complete CCWIS, including both Salesforce and CDI components that work together architecturally, technically and functionally
- Deliver converted, cleansed data of sufficient quality to support the administration of Child Welfare through the lens of new CARES product features; and
- Set up, maintain and operate the CARES delivery pipeline (all environments), including both Salesforce and CDI components.

### **3. CARES Data Infrastructure (CDI) Services**

The CDI vendor provides data architecture and engineering expertise to PDTs and fulfills two primary responsibilities:

- Set up, maintain and operate the CDI as the data platform for CARES; and
- Use CDI-based tools to build selected CDI data services, including metric calculation logic, reports and data exchange APIs.

CDI is more than just a replica of Salesforce data or a conventional data warehouse; the CDI provides a set of managed data services, such as data quality monitoring, that are as important to the administration of child welfare as the user-facing features provided through the Salesforce platform. CDI communicates bi-directionally with Salesforce, in near real-time.

#### 4. Independent Advisor

The Independent Advisor uses data and insights to independently assess if the CWS-CARES project is on track to deliver a service that meets or exceeds CCWIS compliance, CWDS goals and user needs.

The RFP called out the desire for fundamental improvements which may include new mobile digital experiences, self-service capabilities for families and community partners, streamlined administrative workflows and an underlying domain (data) model that better supports program and practice improvement.

The CWS-CARES modernization is currently on time. However, when unforeseen slowdowns occurred, the scope ultimately had to be reduced to adhere to the timeline. As for the budget, it has ballooned to a total of \$1.7 billion dollars, which exceeds the planned budget. This is largely due to the first two attempts that ultimately failed.

### Modernization Lessons Learned

Leveraging lessons learned from other states' CCWIS projects allows DCFS the ability to benefit from that knowledge base. The Children's Bureau's (CB) consolidated lessons learned from CCWIS modernizations during several Technical Assistance Monitoring Reviews. The reviews occurred over a 3-year span and included 15 self-assessment tools provided to the participating agencies<sup>13</sup>.

This study looked at topics such as: Project Management, Governance, Modular Design, Program Needs, Design Standards, and Change Management. These areas were highlighted as supporting program goals and, in general, meeting quality standards. Some of the challenges identified included Data Quality, Modular Design, Design Standards, Efficient/ Economical/ Effective, Governance, and User Interface. These areas were called out as presenting barriers and risks to CCWIS compliance.

These are some of the lessons learned that resulted from that effort with additional commentary:

#### **1. States should have a clearly defined and aligned vision and goals for their CCWIS modernization, shaped by the needs and priorities they identified**

Having a clear and aligned vision and set of goals ensures that the planning and implementation process is purpose-driven, comprehensive and focused on achieving specific outcomes that meet the state's identified needs and priorities. This clarity helps in maintaining alignment among stakeholders, guiding decision-making, and ensuring that the modernization efforts are cohesive and directed towards measurable goals. It also mitigates the risk of scope creep by keeping the project focused on clearly defined objectives.

#### **2. States should spend necessary time in the planning process, assessing their readiness, making desired programmatic or business process changes, cleaning data, standing up data governance, and laying the baseline for Organization Change Management (OCM).**

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<sup>13</sup> [Lessons Learned: CCWIS Technical Assistance Monitoring Reviews Webinar | The Administration for Children and Families](#), Accessed 10-11-24.

Thorough planning is crucial for identifying potential challenges and areas requiring improvement. By assessing readiness, states can gauge their current capabilities and identify gaps. Programmatic and business process changes ensure that the CCWIS system supports updated and optimized workflows. Data cleaning and governance are critical for ensuring data accuracy, consistency, and reliability, which in turn supports better decision-making and service delivery. OCM lays the foundation for smooth transitions by preparing staff and stakeholders for changes and mitigating resistance.

**3. State should incorporate OCM from the start to include user voices in the development and increase user acceptance**

Incorporating OCM from the onset ensures that the voices of end-users are heard and considered throughout the development process. This participatory approach helps in designing a system that meets actual user needs, thereby increasing user acceptance and satisfaction. Early involvement of users in the process can identify potential challenges and areas for improvement, making adjustments easier and less costly. It also helps in building a sense of ownership and reduces resistance to change.

**4. States should develop a strong procurement strategy that is thoughtful, open, and competitive to solicit a better range of solutions for states to review and consider**

A well-developed procurement strategy ensures that states have access to a wide array of potential solutions, thereby increasing the likelihood of implementing a system that best fits their requirements. Openness and competitiveness in procurement encourage innovation and can result in better pricing and terms and a better fitted solution. A thoughtful approach also ensures that the procurement process aligns with the state's vision and goals, enhancing the chances of a successful implementation.

**5. States should develop evaluation criteria for vendor responses prior to procurement**

Having predefined evaluation criteria ensures a structured and objective assessment of vendor proposals. This prevents biases and helps in selecting the vendor that best meets the state's requirements. It also speeds up the procurement process by providing clear benchmarks against which all proposals can be evaluated. Moreover, transparent evaluation criteria can enhance vendor trust and ensure fair competition.

**6. States should work in coordination with their procurement division to align the strategic intent with procurement content, both underpinned by organization goals**

Close coordination with the procurement division ensures that the procurement process reflects the specific needs and requirements of the program alongside the alignment with procurement policies and procedures that the Procurement department is responsible to enforce and offer guidance on. This alignment is necessary for obtaining a system that supports the desired outcomes and workflows. It also helps in identifying and addressing potential conflicts or gaps early in the process, thereby reducing the risk of delays or mismatches between the procured system and program needs.

Aligning strategic intent with procurement content ensures coherence between what the organization aims to achieve, and the products or services being procured. This alignment guarantees that every aspect of the procurement process supports the overarching goals

and strategic direction of the organization. It also helps in maintaining focus and clarity throughout the implementation process, preventing deviations from the planned path.

**7. Consider go-live plan prior to procuring a vendor or during the contracting process.**

This decision, if made later, can result in significant changes to scope and timeline. While decisions made early can be later changed, states will be better able to mitigate risk by doing so earlier.

Considering the go-live plan early in the process helps in anticipating and planning for the necessary steps to deploy the system effectively. Decisions related to go-live impact the scope, timeline, and resource allocation, so addressing them early allows for better planning and risk management. It reduces the likelihood of unforeseen changes that can disrupt the timeline and scope of the project. Early planning also enables states to identify and mitigate potential risks, ensuring a smoother and more predictable implementation process.

The aspects outlined below were prioritized lessons learned that our interviewees in Florida and California discussed based on their specific project implementation and experience.

Florida Department of Children and Families		Ops/In development
Project start date: 2018		Anticipated Go Live (full scope) : June 2026
<p>Florida, a county-administered state, began its CCWIS modernization efforts in 2018 with requirements gathering. In 2022, they contracted with an SI vendor for implementation as well as KMPG for PMQA support and OCM, also adding requirements elaboration in 2024. CSG Systems International, LLC was brought on board in 2024 for IV&amp;V support. Notably, Florida had to publish a second procurement when the first effort fell behind schedule.</p> <p>They are using Salesforce on a cloud infrastructure, with COTS software GovConnect and Binti. They originally planned a phased deployment but changed to Big Bang.</p>		
<p><i>Prioritized Lessons Learned</i></p> <ol style="list-style-type: none"> <li>1. Take the procurement process very seriously. Research, consider, draft.</li> <li>2. Conduct vendor demonstrations to narrow the field.</li> <li>3. Do not overlook the importance of staffing plans in the solution.</li> <li>4. Work to avoid creating an overly aggressive schedule.</li> <li>5. Gain understanding of how including JJ in CCWIS impacts availability of Federal funding.</li> </ol>		



California Child Welfare Services	Implementation
<i>Project start date: 2021</i>	<i>Anticipated Go Live (full scope) October 2026</i>
California, a county administered state, has had 2 unsuccessful CCWIS attempts prior to their recent third effort beginning in 2021. They are currently implementing using Salesforce hosted on Amazon Web Services. They changed from a phased deployment to Big Bang, and contracted with KPMG for PVS support, Deloitte as their PaaS SI vendor, an IV&V provider, and a CARES Data Infrastructure support. To date, all efforts for CCWIS (including the first 2 attempts) have a total cost of \$1.7 billion.	
<i>Prioritized Lessons Learned</i> <ol style="list-style-type: none"> <li>1. Know policy, business practice, and the current system inside and out.</li> <li>2. Include dedicated subject matter experts at every stage on the client side and the vendor side.</li> <li>3. Plan early and thoroughly for data conversion.</li> <li>4. Create a human-centered system based on trauma informed practices</li> </ol>	

## Zoomed-in Experiences: Florida and California

### Interview with Florida



KPMG conducted an interview with two Florida Department of Children and Families project leaders, Cole Sousa (Chief Information Officer, Office of Information Technology Services), and James Cheatham (Director of Family & Community Services). During this time, Cole and James shared information about their CCWIS modernization in Florida.

When discussing procurement, they credited the State's solid and informed approach to be key for the state's successful procurement. They described doing a significant amount of research before writing their procurement documentation - an open-ended procurement that allowed a variety of vendors to put forward their most relevant offerings.

Prior to creating procurement documentation, Florida also conducted a well-attended "Vendor Day" to become more versed in the vendors and their solutions. During this event, multiple stakeholders had the opportunity to see demos of various products and ask relevant questions. It is believed this approach helped the procurement writing effort tremendously. Interviewees pointed out that including in these demos staff ranging from the field worker and all the way to the top leadership levels allowed the entire organization to be represented. In turn, such involvement created the opportunity for involved, quality feedback informed by multiple perspectives.

One of the most powerful points that our interviewees in Florida wanted to communicate was that every state should "take very seriously how they write the procurement. Every single word. Every single ask. Because all vendor proposals will echo how the procurement was

"Every word matters in your procurement as vendors will respond to mirror your procurement language and approach and will also hold you responsible to every single detail published in the procurement documentation."



written. And vendors will hold the state responsible for what was communicated or asked as part of the procurement process”.

Interviewees in Florida also pointed out that a lot of proposals might look similarly; a lot of vendors will state that they can certainly do what the state is asking for but that it is up to the state to understand what the product offers and whether they believe it can achieve the objectives the state was looking to accomplish.

Creating a strong “solution/vendor evaluation form” that members of the evaluation committee can leverage consistently and thoroughly was considered by interviewee as another key to their procurement success.

Interviewees also discussed why Florida, despite its habit of doing so, did not include in the CCWIS procurement details around platform preferences to encourage more competition.

Florida gave modularity and the phased approach a fair shot driven by a need to demonstrate gains, success and release functionality quicker rather than later. Our interviewees believed that such an approach allowed the state to build confidence with the legislature, internal and external stakeholders and show that they “can do it”. Though, a fragile legacy system that made it also very cumbersome and expensive to create the level of interfacing required to support a phased approach made the agency reconsider this approach. Apart from concerns around the fragility of their legacy systems and increased cost, the interviewees also cited increased complexities in managing parallel systems and in coordinating various pieces coherently across as reasons for switching to a big-bang approach.

Our interviewers also discussed the need to allow for more time for the various steps and phases of such a complex implementation. They mentioned that, if they had to do it over again, they would be less ambitious with deadlines.

“Having a bunch of talented people (project manager, PMO, SI vendor, IV&V) working together is not enough. They are all necessary, but not enough. You need someone at the top who is running everything and understands the vision and stays involved closely.

Another important point that our interviewees wanted to make was related to the need to have strong and knowledgeable project leadership on the state side. They discussed their experience where they had to constantly make decisions - at times key decisions within very short period of time (at times, hours) - and adjust daily to keep the project on track. In the

absence of this layer of strong and knowledgeable leadership, they believed it would have been difficult to keep the project on track or the results of the implementation would have been subpar.

Regarding Juvenile Justice, our interviewers stated that JJ is not part of their plans for CCWIS. They expressed concerns around complicating funding streams for system that intertwine the two since only one side of the functionality (CW) is on ACF’s roadmap to support via funds.

## Interview with California



KPMG interviewed Amber Presidio, Case Management Service Manager with California's Child Welfare System Branch. For over 2 ½ years, Amber has served on the California project as the lead for all Case Management Milestones. Prior to that, she served as the Courts Service Manager on the project. Her involvement extended beyond that of a Service Manager since Case Management comprised such a significant portion of the work in the modernization. She was involved in higher-level decision making with project wide impact. Amber's perspective is a hybrid of leadership considerations and functional considerations because of her uniquely positioned role. Right from the get-go, our interviewee emphasized the importance of having a clear understanding of current business practices, policies, and how the current system is being used. Not only does this help assure a Minimum Viable Product (MVP), but it makes it easier to identify where stakeholders and leadership want to innovate. She also stressed understanding clearly where there is discretion in policy and where there is not. This understanding eases decision making and helps to guide a better-informed system that reflects stakeholder and policy vision.

Another point of emphasis our interviewee made was around the necessity to have subject matter experts involved from the very beginning through to the very end, and to involve them in as many layers as possible. This holds true for the client side, but our interviewee also believes it was critical to have subject matter experts on the vendor teams, as well. She strongly believed that those that do work in the field should be heavily represented and included in the design and development alongside the voice of policy makers and experts. Similarly, our interviewee also advocated for having representation in the project from all levels within the Child Welfare structure so that all system users will have the opportunity to provide feedback from their perspective.

When asked what the biggest challenge has been so far on the project, she readily replied, "Data conversion". She adamantly advises any states planning CCWIS modernization effort to have a plan early for data conversion and take the time to understand every field and screen in their legacy system, and to map those fields to policy to understand clearly what exactly is required and what can be flexible.

Our interviewee also shared a few things that surprised her on the project. One was that she did not know that the vendor staff does not necessarily stay on the engagement until the end. This sometimes posed a knowledge transfer issue when vendor staff would roll off the project, and therefore a bit of a slowdown in productivity. She was also surprised by how long it takes for something to be built such as a user story. The last thing Amber mentioned as being surprising to her was that the process was less agile than expected, a bit influenced by how long it does take to build things.

In closing, our interviewee offered the following words of advice:

1. This is a system that impacts people's lives. "Data" is a person so be sure to center the system around the person.
2. Find ways to leverage the system to engage families with their workers.
3. Create a human-centered system to incorporate and reflect trauma informed principles (i.e., preserve and present information in such a way that CCWIS users do not have the need to ask families and children to repeat their traumatic history).

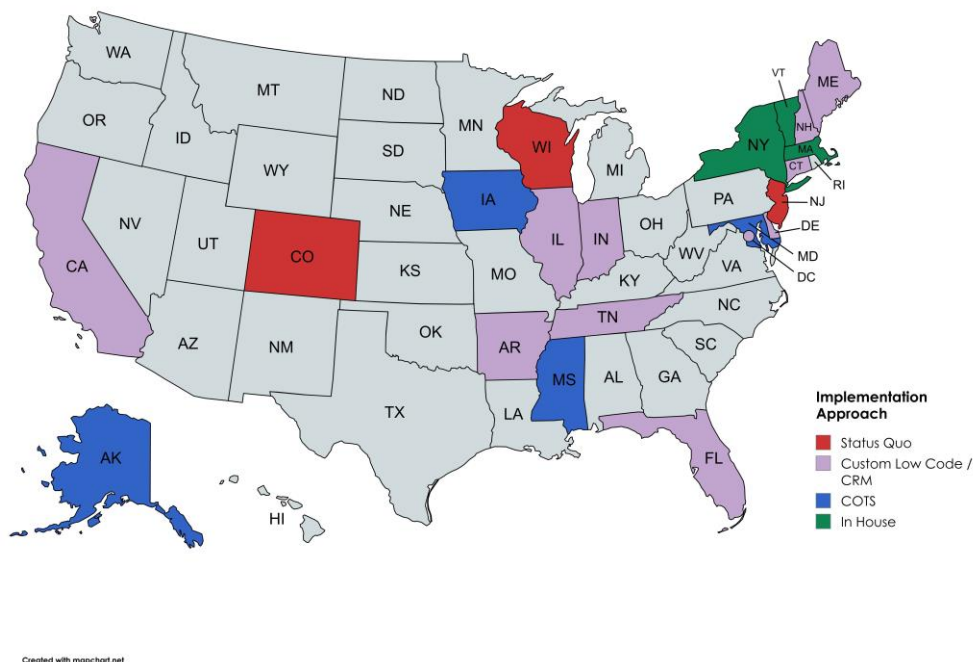
## Current CCWIS Solutions

Across the United States, 48 states are currently committed to CCWIS modernization for their Child Welfare programs. In moving towards that goal, states can take different paths, deploy different solutions and functionalities.

The definition of a "solution approach" in the context of CCWIS modernization encompasses the implementation of technologies, methodologies, and processes that enable a state or a tribal Child Welfare agency to meet their programmatic goals while complying with federal regulations. Thus, a solution represents a multitude of elements coming together to provide for the needs of the Child Welfare agency. There are multiple possible combinations of various solution components that states around the country might have considered, implemented or planned for and, in this case, one size certainly does not fit all. While these combinations of variables might lead to certain solution configurations specific to the respective geography, the specifics of the respective program, administrative structures, state environment, goals, priorities, there are some high-level solution trends that are important to be discussed and learn from.

As we are still rather early in the implementation timelines across the country, the stories that have been completed to a level where they can claim (or not) success are few. Only a handful of states—Maine, West Virginia, Delaware, and Idaho—have fully implemented CCWIS solutions. While ACF has not deemed any of these to be fully compliant yet, we believe that Delaware is closest to achieving that milestone.

### Good mix of solution approaches



According to our sources, as of 10/21/2024, 45 states have declared CCWIS with only four (4) states having operational systems pending ACF compliance. Most of the states find themselves in some stages of their CCWIS development cycle while 13 states are still in planning phase. While four (4) states have decided to continue with their existing applications, and three (3) states are looking to move towards compliance via in house efforts, most states seem to have opted for a low code custom solution.

While states have made these decisions based on their circumstances, goals and priorities, there are some commonly accepted characteristics, benefits and challenges with each of these approaches (see table).

Discussing the Juvenile Justice scope, we believe that there is no vendor to provide a CCWIS solution that fully offers “pre-built” / “out of the box” functionality in support of the JJ scope (Case Management only or full). Though there are states (e.g., TN) that are implementing JJ functionality within the CCWIS, this functionality is limited to the Case Management for shared CW-JJ cases & PREA and does not cover the entire JJ scope. Furthermore, we are not aware to date of vendors that offer custom/purpose-built solution to cover the entire JJ scope.

### **Deployment Strategies Trend Towards Big Bang**

A deployment strategy is a planned approach for how the system transitions from development to operational use, aiming to minimize disruptions, manage risks, optimize resource use, and ensure a smooth and successful rollout.

Though there are multiple deployment strategies, just two tend to be more known and popular: phased approach and big bang (see table).

Examples of successful implementations, including timelines, milestones, and tangible outcomes can provide a roadmap and motivate promising practice adoption.

Timelines for states vary widely as do costs. Maine has stated that they remained very close to both their original timeline as well as their original costs, with some added cost and time due to changes to the original scope that they very deliberately made. The large and complex county-administered state of California, at the other end of the spectrum, is far over both its anticipated timeline and budget. North Carolina, also a county-administered system, is now in a position to start over from scratch after piloting a new system that was not widely accepted by its counties. Indiana, four years into the build and ready to launch, is now doing a gap analysis and determining next steps forward.

## Solution Types and their Advantages and Disadvantages

Solution type	Description	Advantages	Disadvantages
<b>Status Quo</b>	<ul style="list-style-type: none"> <li>- continue with the existing system in use as-is or</li> <li>- make minimal changes to it.</li> </ul> <p>The basics are at the forefront, with emphasis on simply making necessary updates or fixes to allow continued functioning<sup>14</sup>.</p>	<ul style="list-style-type: none"> <li>• <b>Lower Immediate Costs.</b> Avoid significant upfront investments in new systems or technology.</li> <li>• <b>Operational Continuity.</b> Maintain established processes and minimize disruption to ops.</li> <li>• <b>Risk Mitigation.</b> Reduce the risk of project failure or unforeseen issues associated with major system changes.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Continuing Inefficiencies.</b> Persist with potentially outdated or inefficient systems and processes.</li> <li>• <b>Technical Debt.</b> Accumulate more technical debt over time, as legacy systems may require increasingly complex and costly maintenance.</li> <li>• <b>Missed Opportunities.</b> Lose out on benefits from modern technologies, such as enhanced data analytics, improved user interfaces, better interoperability, and increased scalability.</li> <li>• <b>Regulatory Challenges.</b> Struggle to keep up with evolving regulatory requirements and best practices in child welfare services.</li> </ul>
<b>COTS and MOTS</b>	<p>One of the most common no-code/low-code approaches is Commercial Off-The-Shelf (COTS). These refer to prebuilt, commercially available products that are designed to be used by multiple customers with little to no customization. COTS approaches are designed to meet general requirements common to many organizations.</p>	<ul style="list-style-type: none"> <li>• <b>Faster time-to-market</b></li> <li>• <b>Proven reliability and performance</b></li> <li>• <b>Economies of scale</b> lower the cost</li> <li>• <b>Ongoing updates</b> and feature enhancements by the vendor</li> </ul>	<ul style="list-style-type: none"> <li>• May not meet all specific needs or requirements</li> <li>• Potentially limited flexibility and customization</li> <li>• Possible vendor lock-in, the need for continuous vendor support</li> </ul>
	<p>Modified Off-The-Shelf (MOTS) is another common no-code/low-code approach. MOTS share all the aspects found in COTS but diverges in its offering of a customizable software that allows it to better fit the specific needs of an organization.</p>	<ul style="list-style-type: none"> <li>• <b>Balance</b> between customization and quicker deployment times</li> <li>• Software can be <b>better tailored</b> to meet specific business processes and requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Customizations can <b>introduce complexity and increase costs</b></li> <li>• <b>Ongoing support may be more complicated</b> due to the mix of off-the-shelf components and custom modifications</li> </ul>

<sup>14</sup> [A Roadmap for IT Modernization in Government.pdf](#), Accessed 10-1-24.

		<ul style="list-style-type: none"> <li>• <b>Leverage an existing, proven platform</b> as a base</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Potential challenges with future updates</b>, as customizations might need to be re-integrated</li> </ul>
<b>Custom</b>	<p>A custom software approach is tailored to specifically meet unique needs and requirements. This allows for agencies to address local policies, workflows, regulations, data collection, and reporting needs, alongside ensuring CCWIS compliance. Further, integration with existing systems is seamless, scalability and flexibility are both high, capable of evolving over time to accommodate changes in policy, practice, or technology. Allows for the creation of custom reports and analytics tools that support effective monitoring and decision-making specific to the agency's objectives.</p>	<ul style="list-style-type: none"> <li>• <b>Tailored Solutions</b> - designed specifically to meet unique needs and workflows, ensuring better alignment with local policies, practices, and regulations.</li> <li>• <b>Enhanced User Satisfaction.</b> By involving end-users in the design and development process, the system can be made more user-friendly and practical for caseworkers and other staff, leading to higher user adoption and satisfaction.</li> <li>• <b>Improved Efficiency.</b> Can streamline processes and reduce redundant data entries, resulting in more efficient operations and allowing staff to spend more time on direct service delivery.</li> <li>• <b>Better Data Quality and Reporting.</b> Tailored data collection and reporting tools can provide more accurate and relevant information for decision-making, compliance, and performance monitoring.</li> <li>• <b>Scalability and Flexibility.</b> Design a system that can evolve with changing needs, policies, and technology advancements, ensuring long-term viability.</li> <li>• <b>Competitive Advantage.</b> Agencies with well-customized systems may have an advantage in terms of accessing funding, meeting regulatory requirements, and achieving better outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Higher Initial Costs</b> as they need specialized resources and longer development times.</li> <li>• <b>Longer Implementation Time;</b> might delay the benefits realization and could be challenging if there are pressing ops. needs.</li> <li>• <b>Need for Specialized Expertise;</b> requires highly skilled IT professionals and project managers who understand both child welfare and complex system development.</li> <li>• <b>Maintenance and Upgrades.</b> Ongoing maintenance, updates, and enhancements of custom systems can be more complex and costly than pre-packaged solutions, requiring continuous investment in specialized IT help.</li> <li>• <b>Risk of Scope Creep.</b> Custom projects are at higher risk of scope creep, where additional features and changes requested during development can lead to delays, higher costs, and potential project management challenges.</li> <li>• <b>Dependency on Vendors.</b> Might create dependencies for ongoing support and future modifications, potentially leading to challenges if there are issues with vendor performance or continuity.</li> <li>• <b>Alignment with Federal Standards.</b> Ensuring that a custom system continually aligns with evolving federal CCWIS standards and requirements can be challenging and may require frequent updates and adaptations.</li> </ul>

## Deployment Strategies and their advantages and disadvantages

Deployment Strategy			



# Appendices

## Appendix 1: Acronyms

Below is a list of acronyms used in the documentation of research for Alternatives Analysis for Modernized UNITY. This list is also part of Deliverable 3.5.3.6 Alternatives Analysis and is available on a shared location on the DCFS's Teams side under [Documents > General > UNITY Needs Assessment > Supporting Materials](#).

Acronym		
ACF	Administration for Children and Families	Division of the United States Department of Health and Human Services that provides national leadership and creates opportunities for families to lead economically and socially productive lives
AKS	Azure Kubernetes Services	Container based orchestration and management on a cloud platform
APD	Advanced Planning Documents	A plan that states and tribes submit to request federal financial participation for a CCWIS
APHSA	American Public Human Service Association	A nonprofit organization that represents human service agency leaders from across the United States
ARPA	American Rescue Plan Act	A national recovery plan issued by the Federal government to speed up the country's economic recovery from effects of the COVID-19 pandemic and recession
AWS	Amazon Web Services	Cloud based service
CB	Children's Bureau	Federal agency organized under the United States Department of Health and Human Services' Administration for Children and Families that focuses on improving the lives of children and families through programs that reduce child abuse and neglect, increase the number of adoptions, and strengthen foster care
CDI	CARES Data Infrastructure	California CCWIS modernization vendor responsible for data architecture and engineering expertise
COTS	Commercial Off the Shelf Solutions	No-code/Low-code software approach
CWDS	Child Welfare Digital Services	Collaboration of California State and local government agencies that support our shared stakeholders through technology to assure the safety, permanency and well-being of children at risk of abuse, neglect or exploitation
CWLA	Child Welfare League of America	A national organization that advocates for children and families, and provides support to agencies that serve them
CWS-CARES	Child Welfare Services - California Automated Response and Engagement System	The name of California's modernized CCWIS system
DEIA	Diversity, Equity, Inclusion, and Accessibility	An organization's actions and services that consider the needs of all people; A set of practices that aim to ensure that people from a variety of



		backgrounds are represented and can succeed in a workplace
DDI	Development, Design, and Implementation	Critical phases in the lifecycle of a system, application, or project with distinct activities and goals that collectively ensure the successful creation, deployment, and operation of a product or system
Dev-Ops	Development and Operations	CCWIS project status
EKS	Amazon Elastic Kubernetes Services	Container based orchestration and management on a cloud platform
EY	Ernst & Young	Consulting firm
GKE	Google Kubernetes Engine	Container based orchestration and management on a cloud platform
GovWin	GovWin	Resource for searching government contracts across the United States
HCD	Human Centered Design	A problem-solving framework that prioritizes the needs of people over a system
HSITAG	Human Services IT Advisory Group	A non-profit organization that advises government officials on technology and policy for human services programs
IaaS	Infrastructure as a Service	Service model that Provides virtualized computing resources over the internet
ISM	APHSa Information Technology Solutions Management for Human Services	An affinity group that focuses on improving the use of technology in public human services
IV&V	Independent Verification and Validation	Third-party oversight service
LCAP	Low Code Application Platforms	Tool that allows users to create applications with minimal coding
M&O	Maintenance and Operations	The ongoing work required to keep a facility, system, or process running safely, reliably, and efficiently
MOTS	Modified Off the Shelf Solutions	No-code/Low-code software approach
MSA	Master Service Agreement	Legally binding contract that outlines the terms and conditions for future business transactions
MVP	Minimum Viable Product	Basic version of a product (typically a computer program or piece of technology) that meets the minimum necessary requirements for use but can be adapted and improved in the future
NASPO	National Association of State Procurement Officials	Non-profit association dedicated to strengthening the procurement community through education, research, and communication
OCM	Organizational Change Management	Strategic approach to help organizations adapt to change and improve their effectiveness
PMO	Project Management Office	Group that maintains and defines standards for project management with several functions, like ensuring that projects are completed on time, within budget, and to the required standard.
PMQA	Project Management/Quality Assurance	Systematic process and set of activities designed to ensure that project management processes and deliverables meet defined quality standards and requirements throughout the project lifecycle; aims to

		improve project outcomes, enhance consistency, and promote best practices in project management
PaaS	Product as a Service	Service model that delivers a platform for building, testing, deploying, and managing applications via the cloud
PVS	Product Value Services	Vendor services to deliver additional value to clients through various support, maintenance, and enhancement services to ensure client satisfaction and improved user experience
RFI	Request for Information	Formal document used to gather information from vendors
RFQ	Request for Qualifications	Formal document used to gather qualifications from vendors for a project
SaaS	Software as a Service	Service model in which a cloud computing environment is deployed and managed on a cloud infrastructure maintained by the vendor with subscription-based pricing
SACWIS	Statewide Automated Child Welfare Information Systems	Federally funded system that helps states and tribes manage child welfare by collecting and organizing case information
SDLC	Software Development Lifecycle	Systematic process that organizations use to design, build, test, and deploy software
SI	System Integrator	Vendor that builds computing services for clients by combining hardware, software, networking, and storage products
SLA	Service Level Agreements	Legally binding contract between a service provider and one or more clients that lays down the specific terms and agreements governing the duration of the service engagement
TFACTS	Tennessee Family & Child Tracking System	Tennessee's legacy system
UAT	User Acceptance Testing	Gathering feedback from users to check if the system meets user needs
UX	User Experience	How a user interacts with and experiences a product, system or service

## Appendix 2: List of Materials Consulted

Below is a list of materials consulted in gathering research for Alternatives Analysis for Modernized UNITY. This list is also part of Deliverable 3.5.3.6 Alternatives Analysis and is available on the DCFS' Teams site under [Documents > General > UNITY Needs Assessment > Supporting Materials](#).

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1	8 Deployment Strategies Explained and Compared	<a href="#">8 Deployment Strategies Explained and Compared</a>
2	A Roadmap for IT Modernization in Government	<a href="#">A Roadmap for IT Modernization in Government.pdf</a>
3	Assessing Cloud Computing Service Models for Child Welfare Information Systems	<a href="#">Assessing Cloud Computing Service Models for Child Welfare Information Systems Toolkit (hhs.gov)</a>
4	CCWIS Contracting and Procurement Webinar Part One	<a href="#">CCWIS Contracting and Procurement Webinar Part One   The Administration for Children and Families</a>
5	CCWIS Status	<a href="#">CCWIS Status   The Administration for Children and Families</a>
6	CCWIS Strategies: A State Panel Discussion on Progress and Plans to Support Key Initiatives	<a href="#">CCWIS Strategies: A State Panel Discussion on Progress and Plans to Support Key Initiatives   The Administration for Children and Families</a>
7	Child Welfare System Modernization	<a href="#">Child welfare system modernization</a>
8	Cloud Computing Service Models: A State Journey and Lessons Learned	<a href="#">Cloud Computing Service Models: A State Journey and Lessons Learned   The Administration for Children and Families</a>
9	Comprehensive Child Welfare Information System (CCWIS) Technical Bulletin # 5: CCWIS Cost Allocation	<a href="#">Technical Bulletin #5: CCWIS Cost Allocation</a>
10	Comprehensive Child Welfare Information System (CCWIS) Technical Bulletin # 7: Technical Assistance, Self-Assessment Tools, and Monitoring Reviews	<a href="#">CCWIS Technical Bulletin #7   The Administration for Children and Families</a>
11	Comprehensive Child Welfare Information System (CCWIS) Technical Bulletin # 10: Low Code Solutions	<a href="#">Comprehensive Child Welfare Information System (CCWIS) Technical Bulletin (TB) #10: Low Code Solutions\</a>
12	Comprehensive Child Welfare Information System News	<a href="#">Comprehensive Child Welfare Information System News—December/January 2024   Vol. 24, No. 10</a>
13	Deploying New Releases: Feature Flags or Rings?	<a href="https://opensource.com/article/18/2/feature-flags-ring-deployment-model">https://opensource.com/article/18/2/feature-flags-ring-deployment-model</a>

14	Engaging Lived Experience to Strengthen Comprehensive Child Welfare Information Systems	<a href="#">Engaging Lived Experience to Strengthen Comprehensive Child Welfare Information Systems—March 2024   Vol. 25, No. 2</a>
15	Federal Guidance for Child Welfare IT Systems	<a href="#">Federal Guidance for Child Welfare IT Systems   The Administration for Children and Families</a>
16	Goals, Guideposts, Constraints: CCWIS	<a href="#">Goals   Guideposts   Constraints / CCWIS  </a>
17	Government Tech Projects Fail—It Doesn't Have to be That Way	<a href="https://www.belfercenter.org/publication/government-tech-projects-fail-default-it-doesnt-have-be-way">https://www.belfercenter.org/publication/government-tech-projects-fail-default-it-doesnt-have-be-way</a>
18	Guide to the CCWIS Model RFP	<a href="https://humanservicestech.com/downloads/">https://humanservicestech.com/downloads/</a>
19	Legacy Application and System Modernization in State Government	<a href="statetechmagazine.com/article/2020/12/legacy-application-and-system-modernization-state-government-perfcon">statetechmagazine.com/article/2020/12/legacy-application-and-system-modernization-state-government-perfcon</a>
20	Legacy System Modernization Factors and Benefits	<a href="#">Legacy System Modernization Factors and Benefits   StateTech Magazine</a>
21	Lessons Learned: CCWIS Technical Assistance Monitoring Reviews Webinar	<a href="#">Lessons Learned: CCWIS Technical Assistance Monitoring Reviews Webinar   The Administration for Children and Families</a>
22	Practical Guidance: CCWIS Contracting & Procurement Part 2	<a href="#">Practical Guidance: CCWIS Contracting &amp; Procurement, Part 2</a>
23	Stakeholders direct input/Interviews	Workshops, interviews, other conversations
24	Strategies for Making a Difference in CCWIS Procurements	<a href="#">Strategies for Making a Difference in CCWIS Procurements   The Administration for Children and Families</a>
25	The Case for Procurement Reform: Achieving a Shared Vision	<a href="#">The Case for Procurement Reform: Achieving a Shared Vision   NASWA Workforce Information Technology</a>
26	Tool Kit Helps Child Welfare Leaders Streamline Procurement Processes	<a href="#">Tool Kit Helps Child Welfare Leaders Streamline Procurement Processes - The Annie E. Casey Foundation</a>
27	Transforming IT Procurement: A Four-Part Series, Part 3: Writing the RFP	<a href="#">Transforming IT Procurement: A Four-Part Series Part 3: Writing the RFP</a>
28	User Experience Self-Assessment Tool	<a href="#">ccwis_user_experience_self_assessment_tool.docx</a>
29	What are IaaS, PaaS and SaaS?	<a href="#">What Are IaaS, PaaS and SaaS?   IBM</a>
30	What is Low-Code Development?	<a href="#">What Is Low-Code Development?</a>
31	What is Phased Rollout?	<a href="https://www.techtarget.com/searchitoperations/definition/phased-rollout">https://www.techtarget.com/searchitoperations/definition/phased-rollout</a>

32	What You Need to Know About Managing a Child Welfare Information System Project	<a href="#">What You Need to Know About Managing a Child Welfare Information System Project</a>
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