Information Technology Project Request

Feasibility Study Report Executive Approval Transmittal

Department Name		
California Department of Social Services		
Project Title (maximum of 75 characters)		
Child Welfare Services New System Project		
Project Acronym	**Department Priority**	**Agency Priority**
CWS-NS	1	1

I am submitting the attached Feasibility Study Report (FSR) pursuant to a Trailer Bill (SB 1041, Chapter 47, Statutes of 2012, Section 52 (a)) to the Budget Act of 2012 and in support of our request for the California Technology Agency's approval to undertake this project. I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached FSR.

I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department that are subject to Government Code 11135 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following page).

APPROVAL SIGNATURES		
CDSS Chief Information Officer		**Date Signed**
	Karen Cagle	8/27/12
Printed name:	Karen Cagle	
CDSS Budget Officer		**Date Signed**
		8/23/12
Printed name:	Brian Dougherty	
CDSS Department Director		**Date Signed**
		8/28/12
Printed name:	Will Lightbourne	
OSI Chief Information Officer		**Date Signed**
	/ FOR	8/22/12
Printed name:	Gretchen Hernandez	
OSI Budget Officer		**Date Signed**
	/ FOR	8/22/12
Printed name:	Alicia Bugarin MATT SCHUELLER FOR	
OSI Acting Director		**Date Signed**
	/ FOR	8/22/12
Printed name:	Debbie Rose	
Agency Chief Information Officer		**Date Signed**
		8/22/12
Printed name:	Shell Culp	
Agency Secretary		**Date Signed**
		9/12/12
Printed name:	Diana S. Dooley	

CDSS
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Child Welfare Services New System Project

Feasibility Study Report

August 2012

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1 Executive Project Approval Submittal

Information Technology Project Request

Feasibility Study Report Executive Approval Transmittal

Department Name		
California Department of Social Services		
Project Title (maximum of 75 characters)		
Child Welfare Services New System Project		
Project Acronym	**Department Priority**	**Agency Priority**
CWS-NS	**1**	**1**

I am submitting the attached Feasibility Study Report (FSR) pursuant to a Trailer Bill (SB 1041, Chapter 47, Statutes of 2012, Section 52 (a)) to the Budget Act of 2012 and in support of our request for the California Technology Agency's approval to undertake this project. I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached FSR.

I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department that are subject to Government Code 11135 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following page).

APPROVAL SIGNATURES		
CDSS Chief Information Officer		**Date Signed**
Printed name:	Kären Cagle	
CDSS Budget Officer		**Date Signed**
Printed name:	Brian Dougherty	
CDSS Department Director		**Date Signed**
Printed name:	Will Lightbourne	
OSI Chief Information Officer		**Date Signed**
Printed name:	Gretchen Hernandez	
OSI Budget Officer		**Date Signed**
Printed name:	Alicia Bugarin	
OSI Acting Director		**Date Signed**
Printed name:	Debbie Rose	
Agency Chief Information Officer		**Date Signed**
Printed name:	Shell Culp	
Agency Secretary		**Date Signed**
Printed name:	Diana S. Dooley	

IT Accessibility Certification

The following IT Accessibility Certification certifies that this project meets Government Code 11135 (Federal Section 508 of the Rehabilitation Act of 1973.)

Yes or No

Yes	**The Proposed Project Meets Government Code 11135 / Section 508 Requirements and no exceptions apply.**

Exceptions Not Requiring Alternative Means of Access

Yes or No	Accessibility Exception Justification
No	The IT project meets the definition of a national security system.
No	The IT project will be located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment (i.e., “Back Office Exception.)
No	The IT acquisition is acquired by a contractor incidental to a contract.

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
No	Meeting the accessibility requirements would constitute an “undue burden” (i.e., a significant difficulty or expense considering all agency resources). Explain: N/A
No	No commercial solution is available to meet the requirements for the IT project that provides for accessibility. Explain: N/A

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
No	No solution is available to meet the requirements for the IT project that does not require a fundamental alteration in the nature of the product or its components. Explain: N/A

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2 Information Technology: Project Summary Package

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE

SECTION A: EXECUTIVE SUMMARY

1.	**Submittal Date**	

		FSR	SPR	PSP Only	Other:
2.	**Type of Document**	X			
	Project Number				

			Estimated Project Dates	
3.	**Project Title**	CWS New System Project	**Start**	**End**
	Project Acronym	CWS-NS	7/2013	9/2017

4.	**Submitting Department**	California Department of Social Services
5.	**Reporting Agency**	California Health and Human Services Agency

6.	**Project Objectives**
	The CWS-NS project is focused on meeting technical and business objectives that will: • Improve service delivery and outcomes • Allow more timely system enhancements to support changes in CWS practice • Achieve SACWIS compliance required to maintain Federal Financial Participation (FFP) funding and avoid federal non-compliance penalties • Reduce ongoing maintenance and operations costs The technical and business objectives that will facilitate the above are: **Technical Objectives:** • Replace the highly-distributed legacy CWS/CMS with a

8.	**Major Milestones**	**Est. Complete Date**
	Submit 2013 PAPDU-CWS FSR to ACF	10/1/2012
	Recruit and Hire State Staff for the Planning and Procurement Phase Completed	9/30/2013
	Organizational Change Management Initiated	10/15/2013
	Development of Project Management Plans, Processes and Procedures Completed	12/31/2013
	Development of the RFP Completed	5/27/2014
	RFP Released	7/9/2014
	Intent to Bid Due	7.21/2014
	Submit IAPD to ACF	5/28/2015

centralized, web-based SOA computing infrastructure

- Replace the proprietary CWS/CMS software with Commercial-Off-The-Shelf (COTS) software that meets the majority of the business practice needs
- Develop custom software services to close any operational gaps in the COTS software capabilities

Business objectives:

- **SACWIS Compliance:** to ensure retention of Federal Funding Participation (FFP) at current or improved participation levels
- **Resource Utilization:** through elimination of redundant data entry, increased availability of information and documentation, and timely business practice execution
- **System Access:** Improved CWS worker, Service Provider and Service Organization access to system information through portal and mobility technologies
- **Information Exchange Interfaces:** Improved access, accuracy and completeness of data resident in external State/County
- and business partner repositories
- **Business Collaboration:** Improved communication/collaboration and information management between CWS workers, community organizations, service providers and multi-disciplinary teams.
- **Outcome-Driven Planning, Management and Assessment:** Improved case management outcome/process planning, management and assessment/ reporting.

Draft Proposal Due	11/17/2014
Final Proposal Due	3/6/2015
Contract Award	7/8/2015
Execute Contract	7/8/2015
Data Conversion Initiated	7/1615
Computing Infrastructure Established	9/15/2015
DD&I Phase 1 Custom Software Services Completed	6/17/2016
DD&I Phase 2 Custom Software Service Development Initiated	6/20/2016
DD&I Phase 1 Core Software Services Completed	6/17/2016
DD&I Phase 1 Training Completed	8/19/2016
DD&I Phase 1 Testing Completed	7/19/2016
DD&I Phase 1 Deployment Completed	9/19/2016
Decommission CWS/CMS	10/19/2016
DD&I Phase 2 Software Services Development Completed	6/22/2017
DD&I Phase 2 Testing Completed	7/24/2017
DD&I Phase 2 Training Completed	8/24/2017
DD&I Phase 2 Deployment Completed	8/252017
Project Closure Completed	10/6/2017
PIER Completed	6/2019
Key Deliverables	
Project Management Plans, Processes and Procedures	12/31/13

2013 PAPDU & CWS FSR	10/1/2012
2013-14 BCP	9/4/2012
IAPD	5/28/2015
RFP Baseline Document	7/9/2014
Final Proposals	3/6/2015
Contract Award	7/8/2015
DD&I Phase 1 Custom Software Services Baseline	6/17/2016
DD&I Phase 1 Core Components Baseline	6/17/2016
DD&I Phase 1 Training Report	8/19/2016
DD&I Phase 1 Test Report	7/19/2016
DD&I Phase 1 Deployment	9/19/2016
DD&I Phase 2 Custom Software Services Baseline	6/22/2017
DD&I Phase 2 Test Report	7/24/2017
DD&I Phase 2 Training Report	8/24/2017
DD&I Phase 2 Deployment	8/25/2017
Project Closure Report	10/6/2017

7.	Proposed Solution

SECTION A: EXECUTIVE SUMMARY

	The proposed solution is to replace Child Welfare Services/Case Management System (CWS/CMS) with a new computing infrastructure and a new software system – A Buy/Build product-delivery. This solution is recommended as it will deliver a new computing infrastructure, based on a Service-Oriented Architecture (SOA) and a new software-based system. It will optimize deployment of the counties' current and emerging business needs and will facilitate effective delivery of CWS services. It provides a solution which best meets current and future needs and fully incorporates all the required federal SACWIS requirements. It will provide significant benefits to children, their families, and communities as CWS workers become equipped to more effectively perform their jobs now and in the future. This alternative represents the shortest duration to deliver business value and has the most favorable impact to users. The technology supports effective, efficient, and economical upgrades as necessary throughout its lifetime. The proposed solution will also meet federal Statewide Automated Child Welfare Information System (SACWIS) requirements and allow California to retain FFP.

SECTION B: PROJECT CONTACTS

Executive Contacts							
	First Name	**Last Name**	**Area Code**	**Phone #**	**Area Code**	**Fax #**	**E-mail**
Agency Secretary	Diana	Dooley	916	654-3454			Diana.Dooley@chhs.ca.gov
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OSI Budget Officer	Alicia	Bugarin	916	263-4035			Alicia.Bugarin@osi.ca.gov

Direct Contacts							
	First Name	**Last Name**	**Area Code**	**Phone #**	**Area Code**	**Fax #**	**E-mail**
Doc. prepared by	Les	Fujitani	916	263-1136	916	263-1136	Les.Fujitani@osi.ca.gov
Primary Contact	Paula	Rockwell	916	651-7881	916	651-6246	Paula.Rockwell@dss.ca.gov
Project Manager	Gerald	Yee	916	263-4275	916	263-1142	Gerald.Yee@osi.ca.gov

1

INFORMATION TECHNOLOGY PROJECT SUMMARY

SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS

1.	**What is the date of your current Operational Recovery Plan (ORP)?**	**Date**	7/2011
2.	**What is the date of your current Agency Information Management Strategy (AIMS)?**	**Date**	8/2011 (Updated 11/2011)
3.	**For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.**	**Doc.**	AIMS
		Page #	44

Project #	
Doc. Type	FSR

		Yes	No
4.	**Is the project reportable to control agencies?**	X	
	If YES, CHECK all that apply:		
X	a) The estimated total development and acquisition cost exceeds the departmental cost threshold		
X	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
X	c) The project involves a budget action.		
	d) The project meets a condition previously imposed by the Technology Agency.		

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE

SECTION D: BUDGET INFORMATION

Project #	
Doc. Type	FSR

Budget Augmentation Required?		
No		
Yes	**X**	**If YES, indicate fiscal year(s) and associated amount:**

FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	TOTAL
7,286,623	30,633,981	125,538,669	118,872,767	73,678,043	23,869,434	379,879,517

PROJECT COSTS

Fiscal Year	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	TOTAL
One-Time Cost	10,302,046	33,649,404	128,554,092	121,888,190	56,653,040	0	351,046,772
Continuing Costs	0	0	0	0	17,778,859	23,869,434	41,648,293
TOTAL PROJECT BUDGET	10,302,046	33,649,404	128,554,092	121,888,190	74,431,899	23,869,434	392,695,065

PROJECT FINANCIAL BENEFITS

	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	TOTAL
Cost Savings/ Avoidances	(10,302,046)	(33,649,404)	(128,554,092)	(121,888,190)	8,806,930	60,293,151	(225,293,651)
Revenue Increase	0	0	0	0	0	0	0

SECTION D: BUDGET INFORMATION

Project #	
Doc. Type	FSR

Vendor Cost for FSR Development (if applicable)	Not Applicable
Vendor Name	

VENDOR PROJECT BUDGET

1.	Fiscal Year	FY 2013/14	FY 2014/15	FY 2015/16	FY 2016/17	FY 2017/18	FY 2018/19	FY 2019/20	FY 2020/21	FY 2021/22	FY 2022/23	TOTAL
2.	Primary Vendor Budget			49,462,576	20,448,161	9,613,145	5,843,140	5,843,140	5,843,140	5,843,140	5,843,140	**108,739,583**
3.	Independent Oversight Budget	127,842	127,842	127,842	127,842	31,961						**543,330**
4.	IV&V Budget	317,520	425,376	788,256	788,256	52,416						**2,371,824**
5.	Other Budget	3,567,662	4,182,838	7,060,929	9,194,550	5,035,045	1,091,544	1,091,544	1,091,544	1,091,544	1,091,544	**34,498,743**
6.	**TOTAL VENDOR BUDGET**	**4,013,025**	**4,736,056**	**57,439,604**	**30,558,810**	**14,732,567**	**6,934,684**	**6,934,684**	**6,934,684**	**6,934,684**	**6,934,684**	**146,153,479**

----------(Applies to SPR only)----------

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

•	**Primary Vendor**	
•	**Contract Start Date**	
•	**Contract End Date (projected)**	
•	**Amount**	**$**

PRIMARY VENDOR CONTACTS

	Vendor	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
1.									

SECTION F: RISK ASSESSMENT INFORMATION

RISK ASSESSMENT

Project #	
Doc. Type	FSR

	Yes	No
Has a Risk Management Plan been developed for this project?	X	

General Comment(s)
Refer to Appendix F - Risk Management Plan.

3 Business Case

3.1 Business Program Background

3.1.1 Business Program

The Child Welfare Services (CWS) program is the primary prevention and intervention resource for child abuse and neglect in California. Annually, California child welfare workers investigate approximately 475,000 reports of severe injury, death, and life threatening neglect to children at the hands of parents and family members. As a result of these investigations, an average of 100,000 children per year are either in foster care for their protection or live with their parents under close county protective supervision.

To improve the ability of the family unit to safely care for these supervised children, family members annually receive services designed to prevent abuse and neglect. In addition to providing services to the child and family, the CWS workers must complete the assessment and monitoring of the family members and relatives, in conjunction with the 100,000 active children. When the organizations and individuals that provide services (such as medical, educational, psychological) are added to the number of children, the members of the family unit/participating relatives, and the population of service organizations/service providers, the CWS workers are responsible for a population between 500,000 and 750,000 individuals that must be documented, assessed and monitored through the system on an ongoing basis.

California is dedicated to providing a continuum of programs and services aimed at safeguarding the well-being of children and families in ways that strengthen and preserve families, encourage personal responsibility, and foster independence.

The “business” of child welfare is protecting the most vulnerable of California’s residents who are frequently raised in poverty and have experienced tremendous trauma in their short lives. Child protection work does not occur in an office at a desk but in the community, homes, schools, hospitals, foster homes, and community centers.

The overall objective of the CWS program is that every child in California lives in a safe, stable, permanent home, nurtured by healthy families and strong communities. California’s CWS program focuses on:

- Investigating and assessing allegations of child abuse or neglect.
- Initiating, completing, updating, and supporting the judicial processes and procedures related to the removal of children from and return to their parents, placement in foster care, and adoption of children.
- Maintaining children safely in their family’s home, whenever possible and appropriate.
- Providing children with permanency and stability in their living situations.
- Preserving the continuity of family relationships and connections between siblings.

- Enhancing families' capacity to provide for their children's needs.
- Ensuring children receive appropriate services to meet their educational, physical and mental needs.
- Preparing youth to transition from foster care into adulthood.
- Promoting adoption and alternative permanent placement for children unable to return to their own home or extended family.

The following major components comprise the CWS program:

Prevention: Service delivery and family engagement processes designed to mitigate the circumstances leading to child maltreatment before it occurs or necessitates the removal of the child.

Emergency Response: A system providing in-person response (24 hours a day) to reports of abuse, neglect, or exploitation of children for the purpose of investigation, and to determine the necessity for providing initial intake services and crisis intervention to maintain the child safely in his/her own home. To protect the safety of the child it may be necessary to remove the child from the home.

Family Maintenance: Time-limited services that are designed to provide in-home protective services to prevent or remedy neglect, abuse or exploitation for the purpose of preventing the separation of children from their families.

Family Preservation: Intensive services for families whose children, without such services, would be subject to risk of out-of-home placement, remain in existing out-of-home placements for longer periods of time, or are placed in a more restrictive out-of-home placement.

Family Reunification: Time-limited services to children in out-of-home care to prevent or remedy neglect, abuse, or exploitation when the child cannot remain safely at home and is placed out-of-home while services are provided to reunite the family.

Concurrent Planning: Concurrent planning is an approach that seeks to eliminate delays in attaining permanent family placements for children. This process involves considering all reasonable options for permanency at the earliest possible point following a child's entry into out-of-home care services. This includes identifying an appropriate caregiver interested in the order of adoption, legal guardianship or long term placement in the event that the child may not reunify with the biological parents.

Placement: Services designed to serve and protect those children who cannot remain in their homes. Current placement options include family homes (relatives or foster family homes), certified homes of foster family agencies and group homes. Foster care maintenance also includes payments to cover the cost of providing food, clothing, shelter, daily supervision, school supplies, a child's personal incidentals and reasonable travel, including travel

to location of services (e.g., therapy, court, health appointments) and to the child's home for visitation.

Permanent Placement: Alternative family structures for children who, because of abuse, neglect, or exploitation cannot remain safely at home, and/or who are unlikely ever to return home. Permanency placement services are provided when a decision has been made for a permanent plan for adoption, legal guardianship (including the Kinship Guardianship Assistance Payment Program [KinGap]), independent living arrangement for adolescent children, or long term placement has been ordered.

Adoption Services: Services are the provision of a permanent plan for a child involving the study of adoptive families and approving and placing children with them. These services may include recruitment of potential adoptive parents; financial assistance to adoptive parents to assist in the support of special needs children; and direct relinquishment and independent adoption.

Independent Living: Education and services for foster youth based on an assessment of needs and designed to help youth transition successfully from foster care to living independently. Services are provided to enhance basic living skills (e.g., employment, set up bank account, transitional housing), as well as career development skills.

Emancipated Foster Youth Services: Extending foster care until the age of 21; increasing support for kinship care (opportunities for youth to live with family members); improving education stability; coordinating health care services; providing direct child welfare support to Native American tribes; and expanding resources to train caregivers, child welfare staff, attorneys, and others.

Probation Department Child Welfare Roles and Responsibilities

California has chosen the option of using federal Title IV-E (Foster Care) funds to pay for out of home care for children who qualify for these funds and are under the supervision of county probation departments. Pursuant to IV-E requirements, county probation departments are responsible for complying with the same requirements (e.g., eligibility, provision of services, as well as tracking, managing, and reporting services) as county child welfare agencies. CWS/CMS is currently used by probation departments to meet those responsibilities. Any missing or incomplete system functionality impacting child welfare agencies is also impacting probation departments, including their ability to meet eligibility, services, and program management responsibilities. Consequently, references in this Feasibility Study Report (FSR) related to child welfare workers include probation officers and staff who supervise children qualifying for IV-E funds.

Understanding the dependencies that exist between the functional elements of the business practice and the components that define the program is critical to identification of the business problem or opportunity scope.

The following table shows where each program component intersects with each business practice function to achieve its goal(s). Later in this FSR, Table 3.5 – Program Components with Missing/Needs Improvement Functionality will show that the Business Segment/Business Function elements of this table align with the Statewide Automated Child Welfare Information System (SACWIS) requirement guidelines. Note that most individual business practice functionalities touch the majority of the program components. While the execution of an individual business function may be slightly different at each program component (i.e., data entry at one point, search/view at another, etc.), there are no business functions that only intersect with one program component. This reuse complexity becomes important in development of the problem and opportunity discussion when missing or inadequate capabilities are identified in the system, and critical in the final design/delivery of the system services.

Table 3-1 - Program Component to Business Function Mapping

Business Segment	Business Function	Program Components										
		Prevention	Emergency Response	Family Maintenance	Family Preservation	Family Reunification	Concurrent Planning	Placement	Permanent Placement	Adoption Services	Independent Living	Emancipated Foster Youth Services
Intake	Intake	X	X	X	X	X	X	X	X	X	X	X
	Screening	X	X	X	X	X	X	X	X	X	X	X
	Investigation	X	X	X	X	X	X	X	X	X	X	X
	Assessment	X	X	X	X	X	X	X	X	X	X	X
	State Practice	X	X	X	X	X	X	X	X	X	X	X
Case Management	Service/Case Plan	X	X	X	X	X	X	X	X	X	X	X
	Case Review/ Evaluation	X	X	X	X	X	X	X	X	X	X	X
	Facilities Support	X	X	X	X	X	X	X	X	X	X	X
	Monitoring Service/Case	X	X	X	X	X	X	X	X	X	X	X

Business Segment	Business Function	Program Components										
		Prevention	Emergency Response	Family Maintenance	Family Preservation	Family Reunification	Concurrent Planning	Placement	Permanent Placement	Adoption Services	Independent Living	Emancipated Foster Youth Services
	Plan Services											
Resource Management	Facilities Support		X			X	X	X	X	X	X	X
	Foster/ Adoptive Homes Support		X			X	X	X	X	X	X	X
	Resource Directory	X	X	X	X	X	X	X	X	X	X	X
	Contract Support	X	X	X	X	X	X	X	X	X	X	X
Court Processing	Court Documents	X	X	X	X	X	X	X	X	X	X	X
	Notifications	X	X	X	X	X	X	X	X	X	X	X
	Tracking	X	X	X	X	X	X	X	X	X	X	X
	Indian Child Welfare Act	X	X	X	X	X	X	X	X	X	X	X
Eligibility	Initial Eligibility Determination		X	X	X	X		X	X	X	X	X
	Changes in Eligibility		X	X	X	X	X	X	X	X	X	X
Financial Management	Accounts Payable	X	X	X	X	X	X	X	X	X	X	X
	Accounts Receivable	X	X	X	X	X	X	X	X	X	X	X
	Claims	X	X	X	X	X	X	X	X	X	X	X
Administration	Staff Management	X	X	X	X	X	X	X	X	X	X	X
	Reporting	X	X	X	X	X	X	X	X	X	X	X
	Administrative Support	X	X	X	X	X	X	X	X	X	X	X

Business Segment	Business Function	Program Components										
		Prevention	Emergency Response	Family Maintenance	Family Preservation	Family Reunification	Concurrent Planning	Placement	Permanent Placement	Adoption Services	Independent Living	Emancipated Foster Youth Services
Interfaces	Required Interfaces	X	X	X	X	X	X	X	X	X	X	X
	Optional Interfaces	X	X	X	X	X	X	X	X	X	X	X
Quality Assurance	Quality Assurance	X	X	X	X	X	X	X	X	X	X	X
Additional Functionality	Additional Functionality	X	X	X	X	X	X	X	X	X	X	X

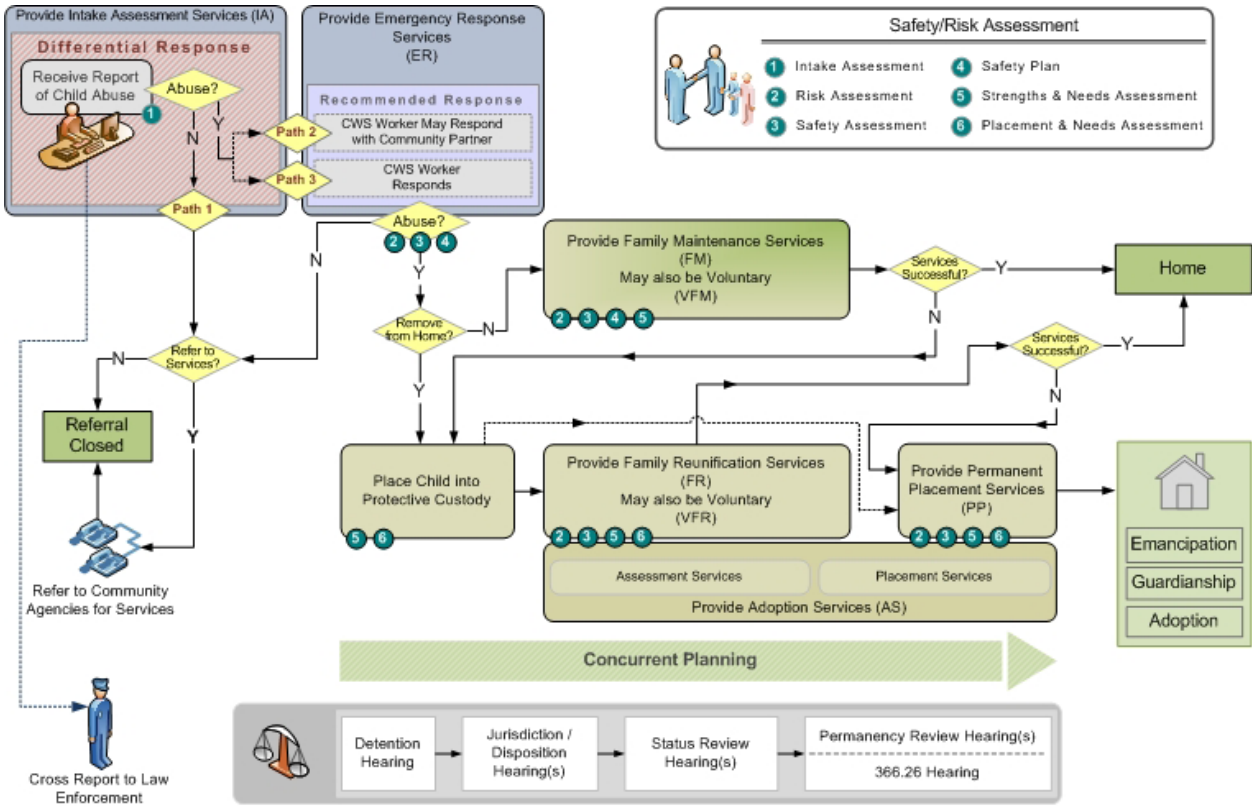
3.1.2 Current Business Process

County welfare agencies administer the child welfare services program under federal and state statutes and regulations. Their primary responsibilities, either directly or through providers, are to provide services to address child abuse and neglect, with the goals of improving child safety. This is accomplished utilizing four service components, which were established through State legislation (Senate Bill [SB] 14) enacted in 1982 as a result of federal requirements under Public Law 96-272. The four service components include:

- Emergency Response (ER)
- Family Maintenance (FM)
- Family Reunification (FR)
- Permanent Placement (PP) (includes Adoptions)

Like the interdependency that was illustrated between the functional elements of the business practice and the components that define the program, the following high level business process model illustrates the interdependencies that exist between these four service components and elements of the Safety/Risk Assessment process. The interdependency between practice and process directly impacts the definition of problem/opportunity addressed in the next section.

Figure 1 - Business Process Model



The above business process is currently supported by the CWS/CMS system. The use of automation to support the Business Program has provided benefits and challenges to the program and the user population tasked with implementing the program. Introduction of the current system at this point is intended only to complete the scope of the program background information.

3.1.2.1 Child Welfare Services/Case Management System (CWS/CMS)

CWS/CMS was conceived in 1989 via SB 370 (Chapter 1294, Statutes of 1989) which authorized the development and implementation of a statewide computer system to automate the case management, services planning, and information gathering functions of child welfare services. At the federal level, Public Law 103-66, H.R. 2264, the Omnibus Budget Reconciliation Act of 1993, established funding and functionality requirements for SACWIS. CWS/CMS is California's version of the federal SACWIS, which began implementation in 1997 with continued development through roll out in 1998. The system supports all 58 California counties and the California Department of Social Services (CDSS) and has over 22,500 users. The current system is in Maintenance & Operations (M&O). CWS workers throughout the State rely on CWS/CMS for access to child, family and other case-related information to make timely decisions, perform effective case management, and ultimately keep children safe and families intact. In addition, the system provides the State and county CWS agencies

with a common database, and consolidates the collection and reporting of information for CWS programs per State and federal requirements.

While the current implementation incorporated many of the federal SACWIS requirements, there are several areas of SACWIS functionality that have not been fulfilled, specifically:

- Adoption case management
- Interfaces for Title IV-A (California Work Opportunities and Responsibility to Kids [CalWORKS]), Title IV-D (Child Support), Title IV-E (Foster Care), and Title XIX (Medi-Cal) systems
- Automated foster care eligibility determination
- Financial management
- Archiving and purging of data
- Federal reporting

3.1.3 Impact to Business Program/Process

The Child Welfare Services Program is a combination of services, legal, medical, social work, case management, financial, educational, documentation, investigation and data reporting tasks each of which have multiple complex processes and procedures. Inherent in these processes and procedures is the need to collect, review, and access large amounts of information and data. Consequently, automation is a critical factor in making the program as efficient, effective, and economical as possible.

In addition, the program has a very high level of public and political concern and activity. As a result, the statutory, regulatory, and practice program requirements evolve very rapidly. As an example, during the last three years the State legislature has introduced 236 separate pieces of legislation to make CWS program changes. Eighty-six of these Bills, the majority containing multiple program revision in each Bill, have been signed into law. In addition to the State level, multiple changes to requirements and processes occur due to federal mandates, court decisions, and unique county program needs pursuant to county authority under California's state-supervised county-administered service delivery model. Virtually all of these revisions require changes, updates, or improvements in the capability and functionality of automated systems to ensure efficient and effective implementation and operation of evolving program mandates.

While program changes and the resulting tasks associated with them have increased significantly, overall funding for child welfare services has been declining over the past three years and has leveled out at a reduced level over the past three years. While new program administrative and services requirements seem to correlate with either slightly declining or steady foster care caseload, the reality is that fewer staff is responsible for more tasks and services per case. Recent federal and state legislation (Assembly Bill [AB] 12) implemented in January 2012 that extends foster care eligibility and services from age 18 to age 21 will further exacerbate this problem by potentially increasing staff caseloads. Consequently, there is an increasing need to replace the current system

with the recommended solution to fully implement, comply with, and realize the benefits of continual program changes. The new solution will automate existing manual tasks, decommission 50 plus external systems in the counties, provide CWS workers the capability and flexibility needed to effectively perform their ever increasing duties, and to provide improved service delivery to the children and families in need.

3.1.4 Customers and Users of the Business Program/Process

The CDSS, Children and Family Services Division (CFSD) provides leadership and oversight of County Child Welfare and Probation departments and community agencies in the implementation of CWS programs through regulations, training, technical assistance, incentives and program evaluations. CFSD is responsible for providing overall program management and setting program objectives for the entire State. CFSD is also responsible for working closely with the County Welfare Directors Association (CWDA), CWS/CMS Program Impact Advisory Committee (PIAC), CWS/CMS Technical Advisory Committee (TAC), CWS/CMS Oversight Committee (OSC), County Probation representatives and other key stakeholders on an ongoing basis to further improve the delivery of child welfare services to California's at risk children and families.

The CFSD Deputy Director leads this program and is the sponsor of the Child Welfare Services New System (CWS-NS) Project. The Deputy Director also has the authority to make investment costs vs. business value decisions for the business area.

3.1.5 Current Annual Costs for CWS/CMS

The current annual IT costs for the existing CWS/CMS system average $79.8 million. These costs fund 49.5 state PYs, associated Operating Expense & Equipment, Contract services, data center services, and agency facilities. Assuming an approved FFP of 50 percent, the approximate annual State General Fund (SGF) cost IT costs for the existing CWS/CMS system averages $39.9 million.

Table 3-2 - Current Annual CWS/CMS Costs

	FY 2013/14	
	PYs	Amts
Continuing Information Technology Costs		
Staff (salaries & benefits)	49.5	4,665,953
Hardware Lease/Maintenance		1,442,880
Software Maintenance/Licenses		2,586,908
Contract Services		33,327,048
Data Center Services		35,986,634
Agency Facilities		0
Other		1,839,031
Total IT Costs	**49.5**	**79,848,454**

3.1.6 Estimated Annual Costs for CWS-NS

The proposed solution's annual Continuing Costs are estimated to be $23.8 million in SFY 2018/19 full implementation (beginning FY 2018-19). These costs fund 40.0 state PYs, associated Operating Expense & Equipment, Contract services, data center services, and agency facilities. With approved FFP of 50 percent the approximate annual State General Fund (SGF) Continuing IT costs are estimated to be approximately $11.9 million annually. This equates to a savings of roughly $28.0 million per year compared to maintaining the existing system. The table below depicts the FY Continuing annual Costs breakdown.

Table 3-3 - Estimated Annual Continuing Costs

	FY 2018/19	
	PYs	**Amts**
Continuing IT Project Costs		
Staff (Salaries & Benefits)	40.0	4,517,960
Hardware Lease/Maintenance		744,000
Software Maintenance/Licenses		8,116,175
Telecommunications		0
Contract Services		6,951,544
Data Center Services		746,360
Agency Facilities		343,140
Other		2,450,255
Total Continuing IT Costs	**40.0**	**23,869,434**

3.2 Business Problem or Opportunity

3.2.1 Operational Background

The current system was designed in the early 1990s to meet the California child welfare services business needs and practices at that time. In addition, several federally mandated functionalities critical to program operations were never implemented. Since the CWS/CMS was implemented in 1997, professional practice, law, regulation, business processes, and program needs have changed significantly. These changes have set in motion policy shifts; practice improvements; alignment of partners, systems and communities; and new accountability structures to ensure the protection and the realization of a safe and stable home for all children.

CDSS and the Office of Systems Integration (OSI) have been unable to achieve implementation of all federal mandates and many of the changes in the CWS/CMS required to keep pace with State and federal laws that change practice and requirements. CWS/CMS does not support current CWS practice; does not provide an environment that supports innovation and new practices; and is not an economical, efficient, and effective automated tool for child welfare management and staff.

While practice has continued to evolve as a result of innovations and changing service needs for children, youth and families, increased productivity demands and statutory responsibilities have added to the inability of the current system to keep pace. Availability of improved technology would provide CWS workers with more time and better resources to effectively deliver services to families and children.

CWS/CMS continues to be non-compliant with federal SACWIS requirements even though Administration for Children and Families (ACF) still provides our Federal Financial Participation at the 50 percent level. Continued failure to comply, however, can potentially increase General Fund (GF) costs by 70 percent. ACF did temporarily reduce FFP due to non-compliance by California in the early 2000s and has done so in multiple other States. Reduction of FFP to the non-SACWIS level will increase the GF obligation from 50 to 85 percent of the total cost required to maintain and operate the current system. In dollar terms, the GF obligation will increase by $28 million from $40 million to $68 million per year. Non-compliance will also result in a payback of prior FFP funding (i.e. potentially in the hundreds of millions of dollars) dating to the early 1990s. The total payback would be negotiated; however, the most recent informal federal guidance on the amount would include at least 25 percent of the FFP for CWS/Web and a potentially significant portion of the FFP received for CWS/CMS over the years.

Reduction in on-going FFP to a non-SACWIS rate also applies to county goods and services of the total costs. It would result in a significant reduction in the total amount of funding available for county costs to operate child welfare services information technology. Impacts on the State and counties are likely to be:

- Inability to operate or significant reduction in functionality of the CWS/CMS.
- Further reduction in ability to implement statutory and regulatory changes in the current system.

- System failures at the county level due to inability to replace and maintain old equipment.
- Increase State and/or county share of costs to operate and update the current system.
- Increased costs to both the State and the counties to develop and maintain external systems necessary to provide automation functionalities for child welfare services.

In addition, it is likely that any payback of prior FFP would be recouped by the federal government via reductions in State/county FFP claims for the entire federal IV-E (foster care) program. Depending on the negotiated amount of the payback, this method could create a significant funding loss for the foster care program for some unknown number of fiscal years.

In response to these issues, the Legislature took action to begin to pursue replacement of the CWS/CMS in the 2012 Budget Act and Trailer Bill (SB 1041, Chapter 47, Statutes of 2012, Section 52(a)) as follows:

> *Section 52 (a) The State Department of Social Services shall use funding included in the Budget Act of 2012 related to the replacement of the Child Welfare Services/Case Management System (CWS/CMS) for the next steps necessary to move forward with the recommendation of the Child Welfare Automation Study Team (CAST) to proceed toward procuring a new system, consistent with a buy/build strategy, as described in the CAST report submitted to the Legislature. These next steps shall include, but shall not be limited to, completing, in consultation with the counties and the County Welfare Directors Association, a Feasibility Study Report (FSR) and federal Advance Planning Document (APD), as well as conducting other planning activities. The Office of Systems Integration (OSI) and the department shall report the results of these activities, in addition to the key milestones and anticipated timelines for any resulting procurement process, to the Legislature by March 1, 2013, for review during budget hearings in 2013*.

3.2.1.1 Analysis of the Functional Capabilities That Exist in CWS/CMS

At the heart of the analysis was the Child Welfare Services (CWS) Capabilities Matrix. This matrix was based on functional requirements provided in the SACWIS framework, State law, CWS practice, CWS Use Case scenarios, and CWS Business Process Workflow models. The CWS Capabilities Matrix was designed to reflect a hierarchical relationship between Business Segment, Function, Use Case, and Capability.

Each Business Segment/Function/Use Case hierarchical element was evaluated to identify which capabilities (software services) were provided by CWS/CMS, and which ones would require development of a custom software service. A capability is a business process or workflow activity that is performed by a user to support the business practice (i.e., Record Referral information, validate postal service address).

Capabilities that CWS/CMS partially met were considered fully met based on the evaluation approach.

Using this format and these boundary conditions, the CWS Automation Study Team in collaboration with CWS/CMS support staff, CWS county consultants, and County Welfare Directors Association representatives evaluated the capabilities provided by CWS/CMS. These evaluators used the CWS Capabilities Matrix as a data collection instrument to annotate results from their analysis. Capabilities determined to be partially met by CWS/CMS were counted as capabilities provided by the existing system. The following documentation was used as part of the evaluation:

- Report to the Legislature: Child Welfare Services Automation Study – Section IV: Status of CWS/CMS.
- Report to the Legislature: Child Welfare Services Automation Study - Appendix A: Critical Functionality Assessment and Methodology
- CWS Use Cases.
- CWS Business Process Flows.
- CWS/CMS Scenario Manager.

3.2.1.2 Evaluation Results of Capabilities by Business Segment

The current CWS/CMS can meet 24 percent of the 1,120 total capabilities identified in the CWS Capabilities Matrix. The following table provides the number and percent of capabilities that exist in CWS/CMS as well as those that require the development of custom services. The current system does not provide any capabilities for Financial Management or Quality Assurance. The capabilities provided by Eligibility and Additional Functionality are almost non-existent. The exceptionally high voids in these business segments weigh heavily on the overall operational functionality of the CWS/CMS, and continue to be roadblocks to SACWIS compliance.

The most critical business segments for the CWS practice are Case Management and Court Processing, where the average capability provided by CWS/CMS is at 32 percent.

Table 3-4 – CWS/CMS Capabilities by Business Segments

CWS/CMS Business Segments	Total Capabilities	CWS/CMS	Custom Services	% CWS/CMS	% Custom Services
CWS/CMS Total	**1,120**	**265**	**855**	**24%**	**76%**
Additional Functionality	117	11	106	9%	91%
Administration	57	22	35	39%	61%
Case Management	526	168	358	32%	68%
Court	50	16	34	32%	68%

CWS/CMS Business Segments	Total Capabilities	CWS/CMS	Custom Services	% CWS/CMS	% Custom Services
Processing					
Eligibility	135	2	133	1%	99%
Financial Management	59	0	59	0%	100%
Intake	119	29	90	24%	76%
Quality Assurance	17	0	17	0%	100%
Resource Management	40	17	23	43%	58%

Note: Resource Management percentages do not equal 100 percent due to rounding

Based on the evaluation approach, it was determined that CWS/CMS is not compliant with State/county operational needs, federal and state laws, regulations, and policies, or federal SACWIS requirements. The functional capability gaps in CWS/CMS has forced the CWS program to use redundant and/or manual processes and develop/maintain more than 100 external systems to fill the gaps and comply with laws, regulations and court orders. Because CWS/CMS only provides 24 percent of the functionality required by the business practice, it is imperative that a new solution be developed and implemented to meet the business practice goals and objectives and eliminate the need for additional external systems and manual workarounds.

3.2.1.3 Evaluation Results by Program Component to Business Function

The following table illustrates where Program Component and Business Functionality intersections in the current system either are missing functional support or the existing functional support needs to be improved to support program needs, goals and expectations. The missing functionality is especially important because it highlights three large missing SACWIS requirements: Eligibility, Financial Management, and Interfaces. The fourth major missing SACWIS component, Adoptions, is embedded within Case Management. Note that all business functions within Case Management currently need improvement including the limited Adoptions capability. Overall, this illustrates that the current system does not effectively support the business practice.

Table 3-5 - Program Components with Missing/Needs Improvement Functionality

Legend:		
No "X" – indicates no Program Component identified for the Business Segment/ Business Function		
"X" – indicates Program Component identified is dependent on Business Segment/Function to achieve their goal(s).		
X-Program Component with no changes	X-Program Component Missing Functionality	X- Program Component – Needs Improvement

		Program Components with Missing/Needs Improvement Functionality										
Business Segment	**Business Function**	**Prevention**	**Emergency Response**	**Family Maintenance**	**Family Preservation**	**Family Reunification**	**Concurrent Planning**	**Placement**	**Permanent Placement**	**Adoption Services**	**Independent Living**	**Emancipated Foster Youth Services**
Intake	**Intake**	X	X	X	X	X	X	X	X	X	X	X
	Screening	X	X	X	X	X	X	X	X	X	X	X
	Investigation	X	X	X	X	X	X	X	X	X	X	X
	Assessment	X	X	X	X	X	X	X	X	X	X	X
	State Practice	X	X	X	X	X	X	X	X	X	X	X
Case Management	**Service/ Case Plan**	X	X	X	X	X	X	X	X	X	X	X
	Case Review/ Evaluation	X	X	X	X	X	X	X	X	X	X	X
	Facilities Support	X	X	X	X	X	X	X	X	X	X	X
	Monitoring Service/Case Plan Services	X	X	X	X	X	X	X	X	X	X	X
Resource Management	**Facilities Support**		X			X	X	X	X	X	X	X
	Foster/ Adoptive Homes Support		X			X	X	X	X	X	X	X
	Resource Directory	X	X	X	X	X	X	X	X	X	X	X

		Program Components with Missing/Needs Improvement Functionality										
Business Segment	**Business Function**	**Prevention**	**Emergency Response**	**Family Maintenance**	**Family Preservation**	**Family Reunification**	**Concurrent Planning**	**Placement**	**Permanent Placement**	**Adoption Services**	**Independent Living**	**Emancipated Foster Youth Services**
	Contract Support	X	X	X	X	X	X	X	X	X	X	X
Court Processing	**Court Documents**	X	X	X	X	X	X	X	X	X	X	X
	Notifications	X	X	X	X	X	X	X	X	X	X	X
	Tracking	X	X	X	X	X	X	X	X	X	X	X
	Indian Child Welfare Act	X	X	X	X	X	X	X	X	X	X	X
Eligibility	**Initial Eligibility Determination**		X	X	X	X		X	X	X	X	X
	Changes in Eligibility		X	X	X	X	X	X	X	X	X	X
Financial Management	**Accounts Payable**	X	X	X	X	X	X	X	X	X	X	X
	Accounts Receivable	X	X	X	X	X	X	X	X	X	X	X
	Claims	X	X	X	X	X	X	X	X	X	X	X
Administration	**Staff Management**	X	X	X	X	X	X	X	X	X	X	X
	Reporting	X	X	X	X	X	X	X	X	X	X	X
	Administrative Support	X	X	X	X	X	X	X	X	X	X	X
Interfaces	**Required Interfaces**	X	X	X	X	X	X	X	X	X	X	X
	Optional Interfaces	X	X	X	X	X	X	X	X	X	X	X
Quality Assurance	**Quality Assurance**	X	X	X	X	X	X	X	X	X	X	X
Additional Functionality	**Additional Functionality**	X	X	X	X	X	X	X	X	X	X	X

3.2.2 Problem/Opportunity Assessment

While each of the above identified intersections has an associated problem and opportunity, this section focuses on program and system elements to be addressed by the proposed solution. Operational deficiencies exist in the areas of:

- SACWIS Compliance
- Resource Utilization
- System Access
- Information Exchange Interfaces
- Business Collaboration
- Outcome-driven planning, management and assessment

3.2.2.1 SACWIS Compliance

Problem: The current system is missing several functional areas required to meet SACWIS compliance.

Impact: Failure to meet full SACWIS functionality could result in a reduction in FFP (currently at 50 percent) for state and county child welfare automation and a potential payback of a significant portion of the federal funds for child welfare automation development, maintenance, and operations funds provide to the State and counties since the early 1990s. Specific information on the impacts of FFP reduction and potential payback is described in Section 3.2.1.

Opportunity:

- **Provide Adoptions** Case Management Capabilities

  Issue: The current system does not provide adoptions case management functionality and is a barrier to meeting requirements of many recent state and federal laws, data reporting, and adoptions case management expansion under realignment. It currently only collects Adoption and Foster Care Analysis and Reporting System (AFCARS) data elements and provides minimal support for the Adoption Assistance Program (AAP). As a result, statewide data reporting is missing client information. The State and counties have had to develop and maintain interim external systems to support their adoptions workload.

  Approach: The provision of Adoption Case Management functionality will change how case CWS workers manage all activities associated to the adoption of a child. This will improve efficiency in updating adoption information, conducting adoptability assessments, conducting interviews with prospective adoptive caregivers, matching of adoptive applicants with children, AAP process, and performing adoptive placement and post-placement supervision. Supervisors and managers will be able to address caseload and workload and effectively direct workflow in a manageable way.

- **Enhance Eligibility Determination**

  Issue: SACWIS requirements mandate that the SACWIS system or a single external system provide for the ability to establish an individual's Title IV-E Foster Care Eligibility, and ensure that all eligibility factors are consistently and accurately applied statewide. Currently, foster care eligibility determination requires the use of multiple county and state systems. The IV-E Eligibility Determination (ED) process imposes a heavy workload on CWS workers and eligibility workers because of the manual, labor-intensive processes. CWS and eligibility workers have to access a variety of disparate systems (CWS/CMS, SAWS consortia, and MEDS) to gather all of the required information for IV-E cases. The presence of multiple systems means that the process can vary in its implementation from one county to another.

  Approach: The IV-E ED process must be integrated into a single service throughout the State to improve its accuracy and remove inconsistent application of policy among eligibility workers and counties. CWS workers and eligibility workers require much of the same information, but have very different responsibilities and often report to separate organizations. Provision of a single statewide service that implements only one process for determination of Title IV-E eligibility will result in consistency and efficiency in execution of state practice and federal compliance.

- **Provide Missing Required Information Exchange Interfaces**

  Issue: The current system does not support automated interfaces to federal SACWIS required data repositories. The interfaces need to provide an automated exchange of common and/or relevant data (information) to support child welfare services practice.

  Approach: These interfaces enable the CWS worker to determine who lives in the home and the financial situation of that home, information that is critical for child safety assessments, case planning and case management. The required SACWIS interfaces are as follows:

  - Title IV-A Information Exchange Interface (Temporary Assistance for Needy Families [TANF])
  - Title IV- D Information Exchange Interface (Child Support Enforcement)
  - Title IV- E Information Exchange Interface (Foster Care Eligibility determination)
  - Title XIX Information Exchange Interface (Calculation and Tracking of Medicaid eligibility)

- **Provide Missing Financial Management Capabilities**

  Issue: The current system does not provide financial-management functionality to support emergency assistance, foster care, KinGAP, AAP, and CWS service-connected expenses.

Approach: The provision of this capability will enable the worker to determine available services, prevent overpayments and resolve underpayments to Caregivers and Service Providers. The functional scope will provide support to the financial processes associated with Accounts Receivable, Accounts Payable and Claims processing.

3.2.2.2 Resource Utilization

Problem: The current CWS/CMS has a number of built-in limitations that do not support tasks directly focused on protecting children and providing services to families. Further, the cost and time required to solve problems, resolve deficiencies, and/or develop enhancements to the CWS/CMS are prohibitive.

Impact: Families and children do not get timely services. The inability to respond rapidly with the most complete information impacts the ability to protect the health and safety of children. The case worker's ability to utilize the system to access information, execute information searches, identify service providers or analyze available foster placements on the system is greatly restricted.

Opportunity:

- Enhance Data Entry Through Improved Navigation Design

  Issue: Existing menu navigation hierarchies require numerous drill-down actions to get to data entry screens. Users often have to access multiple screens, drill up and then drill down again just to enter basic data. Navigation is not always intuitive. Processing time to save data is slow and cumbersome. Similar data must be entered into different navigation hierarchies within the system.

  Approach: Existing data needs to automatically populate forms (screens/pages) whenever they are presented to the user. Data that is acquired from external sources needs to be managed to support automatic and logical presentation to users as they navigate the system.

- Enhance Interactions/Information Exchanges Through Automated Workflow Management

  Issue: The current system does not provide any workflow automation to support the worker, supervisor, support agency or service provider interactions/information exchanges over the life cycle of a case. The manual execution of these interactions/information exchanges results in a decrease in user efficiency and successful case management.

  Approach: Worker, supervisor, support agency or service provider interactions/information exchanges need to be managed by a configurable, automated process engine that initiates and monitors the interactions/information exchanges and reports on their timeliness and execution.

3.2.2.3 System Access

Problem: Users have limited access to CWS information while outside their office environment.

Impact: Limited system access outside the office environment causes the CWS worker to spend more in-office time preparing/collecting information to support the in-field activities with the children and families. Non-CWS workers (e.g., Indian tribes, family and juvenile courts and court officers, Independent Living Program service providers, mental health and other therapeutic service providers, law enforcement agencies, foster parents, health and education providers, and public health nurses) have little or no access to system information relevant to execution of their responsibilities. This impacts the Worker caseload as they need to respond to inquiries or collect information from this support population.

Opportunity:

- **Enhance CWS worker System Access Through Provision of Mobile Capabilities**

  Issue: Limited/inefficient access to system/practice information outside the office environment limit the CWS workers decision making and case management capabilities.

  Approach: CWS workers need to be able to execute business functions that define the CWS practice prior to, during and/or immediately after recordable events occur. Many of the tasks executed on a daily basis (i.e., court appearances, medical appointments, home visits, etc.) result in “wait-time” that could be utilized for planning or updating the current or other cases. The introduction of mobile computing capabilities (Remote Access and Computing) could extend the CWS workers daily productive work time and could be utilized in situations such as the following:

    - While in court, case disposition information can be entered
    - While waiting for court appointments, or while waiting with a child at a doctor’s appointment, the case worker could review, enter and update case information
    - When investigating a referral, a worker could better access and review family information to provide a more complete assessment of a child’s safety in the home
    - When investigating a referral, a worker could better access and review family information or evaluate and better respond to new information from the family to provide a more complete assessment of a child’s safety in the home
    - While in the home performing assessments or follow-up appointments, data can be reviewed and/or entered during or shortly after the visit
    - While performing after hour’s duties, case/referral data could be accessed for better assessment of the child and the family

  - As information is obtained while out in the field during personal interviews, phone conversations, visits with other organizations, information can be directly entered.

- **Enhance Service Organization and Service Provider Access to System Information**

  Issue: Because family members, service organizations and service providers have little or no access to system information, the CWS worker has to personally/manually communicate approved services/referrals and can only monitor delivery of those services in the same personal/manual manner.

  Approach: The provision of a "self-service" capability to the family members, service organizations and service providers would allow more interactive collaboration between these individuals and the CWS practice/CWS worker(s). Members of a family unit could check on their approved services and providers of those services. Service organizations could monitor their referrals. Service providers could monitor their referrals and more easily report delivery of assigned services.

3.2.2.4 Information Exchange Interfaces

Problem: The current environment does not support county operational or SACWIS mandated requirements for information exchange with supporting program data repositories. Specific deficiencies exist with:

- Information exchange with the Title IV-A (CalWORKS) data repository
- Information exchange with the Title IV-D (Child Support) data exchange
- Information exchange with the Title IV-E (Foster Care) data repository
- Information exchange with the Title XIX (Medi-Cal) data repository
- Information exchange with the county financial management data repositories

Other information exchange requirements involve state business practice collaborative agency partners such as the Department of Justice (DOJ), the Department of Motor Vehicles (DMV), family and juvenile courts , public health organizations and educational institutions; as well as collaborative systems such as the Statewide Automated Welfare Systems (SAWS).

Impact: The lack of interfaces with collaborative agencies and systems results in less efficient work processes, a heavier administrative workload, untimely information availability, duplicate data entry across systems, data inconsistency, potential, delays in provision of services and benefits to the child and family, and potential overpayments for delivered services. Untimely or incorrect information availability/access results in delays in or incorrect eligibility determinations, which negatively affects both the care of children and inaccurate expenditure of foster care funds.

Opportunity:

- **Enhance** Collaborative, Bi-Directional Information Exchange Capabilities

Issue: The current information exchange capabilities with supporting program data repositories is either non-existent or ineffective "batch-type" processes.

Approach: The ability to access information specific to the execution of the CWS business practice needs to be provided in time intervals that are aligned with the change dynamics of the data and the decision making needs of the CWS worker population. The majority of the collaborative data information exchanges potentially will need to align with real-time or very limited time latency intervals, and may be driven by automated workflow rules and processes.

3.2.2.5 Business Collaboration

Problem: The current environment does not support child welfare and family support services collaboration with community and governmental resources to serve families in a comprehensive multi-disciplinary manner. The current process of sharing information and collaborating on cases is inefficient and subject to multiple errors. The physical process requiring printing of case/client information to facilitate business collaboration is cumbersome and inefficient. Often the information contained on the printout has to be re-keyed by the other workers into their system.

Impact: The existing technology does not facilitate automated interaction with community partners or allow sharing of information necessary for multi-disciplinary team development of a case plan for services and support of families. Families requiring services from multiple programs routinely find they are assigned one or more CWS workers for each program and are asked many of the same questions by CWS workers from these different organizations.

Opportunity:

- **Enhance Support Service Collaboration Capabilities**

  Issue: Participants in the child welfare process, including Indian tribes, family and juvenile courts and court officers, Independent Living Program (ILP) service providers, mental health and other therapeutic service providers, law enforcement agencies, foster caregivers, health and education providers, adoption agencies, and public health nurses, need the ability to input and access information to effectively participate in multi-disciplinary case management.

  Approach: The provision of a "self-service" capability would allow more interactive collaboration between these individuals and the CWS practice/CWS worker(s). Support Service participants would be able to monitor their referrals, more easily report delivery of assigned services and become participants in the process through enhanced workflow and resource management functionality associated with collaboration meeting automation, calendaring, virtual meetings, etc.

3.2.2.6 Outcome-Driven Planning, Management and Assessment

Problem: Outcome-driven planning, management and assessment requires integration of the information collection and management processes with the assessment and case plan execution processes. The current system does not provide cross-functional integration of planning, management and assessment processes within a single operational environment. Integration is restricted by the navigational model utilized to access services or the existence of services in external, non-integrated systems.

Impact: Because planning, management and assessment activities are resident in non-integrated system processes or external systems, the CWS worker has to execute planning functions in one area of the system, manage the process through several functional silos within the system and carry (mentally or on printed sources) insight and information to be used in external assessment activities. This results in excessive time and often results in inaccurate conclusions and delayed decisions.

Opportunity:

- **Enhance Safety and Risk Assessment Capabilities**

  Issue: Currently there are two methods used to execute Safety and Risk Assessments. Both methods are external to the existing system. The Comprehensive Assessment Tool (CAT) which is utilized by four counties and Structured Decision Making® (SDM®) utilized by 54 counties. Counties access these tools through third party software. Case workers do not have direct access to either SDM® or the CAT via CWS/CMS.

  Approach: A single, integrated statewide risk assessment service needs to be provided with the new system. Provision of such a service will facilitate consistency in collection and sharing of information throughout the life of the case. This will allow compliance with a SACWIS requirement for a single process and maintenance of the assessment information in the central system data repository.

- **Enhance Tracking and Communication with the Family and Juvenile Courts**

  Issue: The current system provides the ability for the CWS worker to write the court report, once the report is written the balance of the process becomes a manual administrative task between Child Welfare Services and the Court. These manual processes include the process of creating the hard copies of the different reports, preparing all copies, routing for reviews, reviewing, tracking, transporting and delivering legal documents to and from the court (court reports, court results, calendars, minute orders, etc), and all affected parties associated with the hearings (including the children, parents, lawyers, and other parties). These manual processes have many points of failure in meeting the judicial mandates for hearings which causes delays in hearings and ultimately delays and disruptions for the children and families served.

  Approach: Automating an interface between the courts and the CWS-NS will significantly improve the preparation, accuracy, and movement of legal

documents and court orders that are a major critical administrative task in child welfare and adoptions.

The result would greatly increase the efficiency of child welfare, probation, law enforcement and court workers involved in these legal processes.

3.3 Business Objectives/Benefits

Collaboration between family members, CWS workers and Service Providers is essential to the achievement of positive outcomes. Through implementation of the recommended solution, the State has the opportunity to improve service delivery and outcomes, allow quicker system enhancements to keep pace with changes in CWS practice, and become SACWIS compliant to retain FFP funding levels and avoid potential federal payback. Problems with the current system impact CWS workers' ability to administer Title IV-E (including eligibility determination) and IV-B programs as efficiently, effectively, and economically as possible. CWS/CMS users experience problems with the current system because it cannot support evolving requirements for critical interfaces, integrated service delivery, streamlined workflow, or outcome-driven planning, management, and assessment. Through implementation of the recommended solution, the State has the opportunity to increase the amount of time CWS workers can spend with children and families. In addition, the counties are operating in a deficit condition related to staffing. Current staff reductions, increased data input requirements, and manual paperwork processes force them to function in a "triage" state (only working on the most critical issues) on a regular basis. Automation will provide relief from the numerous administrative processes which will allow for redirection of worker time back to the clients, providing services and improve outcomes for the kids. The following narrative highlights the problem/opportunity items that define the business objectives of the CWS-NS project:

- **Data Entry and Workflow**

End users must perform data entry tasks that are redundant in nature and lack support for workflow functions. In particular, the technical architecture is designed such that concurrent or simultaneous data updates to the same case record are difficult to achieve. In addition, data entered in one area of the application does not consistently populate the same data fields in other areas

The technical architecture also lacks support for automating current workflow solutions. This results in a decrease in user efficiency and successful case management. For example, multiple workers will update a case during its lifetime for purposes of court hearings, placement changes, eligibility determinations, etc. These users need the ability to update the record as their workflow dictates rather than when the case record is unused.

Currently, caseworkers must manually enter case data into CWS/CMS. CWS case aids, ancillary CWS Service Providers, and data entry clerks are increasingly employed to enter routine data because data entry is often a time consuming activity. This is the result of complex menu navigation to reach data entry screens, requirement to enter similar data repeatedly, and number of fields requiring

manual data entry. During development of the CWS/CMS Strategic Plan, a needs assessment involving more than 350 stakeholders was conducted. During this assessment effort, stakeholders identified numerous technology changes to increase user efficiency by providing more modifications and enhancement to the CWS/CMS data entry mechanisms. Among the needs defined were:

- Simplify the data entry process, requiring fewer screens with less downloaded data.
- Automatically notify others when a change occurs, when the change affects the area the users are in and need to be aware of (e.g., when a placement change occurs send an update notification to an eligibility worker).
- Automatically populate forms and/or reports with case data that already exists within the system.
- Enable users to access information in multiple cases simultaneously.
- Increase system flexibility regarding business rules and navigational order of required input.

Currently, approximately 2 percent of a user's time is spent on redundant data entry and navigation among many application screens. Redesign of the system could provide opportunities for more time spent with at-risk children and families, as well as increased productivity.

- **Limited Mobility System Access**

End-users currently have limited access to CWS/CMS while in the field. Based on the current fat-client technology, opening a case results in an average of approximately 100 kb of data transferred from the host to the client workstation. The data transfer time for this single transaction could be over 4 minutes (the average user executes 14 CWS/CMS transactions per day (275,000 transactions per day divided by 17,000+ active users)). A code update on a user's portable workstation sometimes takes several hours to complete. If timely remote/mobile system access were available, workers could use CWS/CMS while away from the normal office environment. This would create a "virtual office" by providing these workers the same access to resources whether at home, in the office, or on the road. Currently, remote access to the CWS/CMS is cumbersome or the ability to connect is not available. Caseworkers have identified the need to retrieve and record information while in the field. A few examples of how this remote technology could be applied are as follows:

- While in court, case disposition information can be entered.
- While waiting for court appointments, case information can be entered.
- While in the home performing assessments or follow-up appointments, data can be entered during or shortly after the visit.

- As information is obtained while out in the field during personal interviews, phone conversations, visits with other organizations, information can be directly entered into CWS/CMS.
- Improved remote access would allow the CWS worker to spend more time in the field with the children and families. In the future, additional types of users (e.g. Bureau of Indian Affairs, courts and court officers, case aides and clerks, juvenile probation officers, Independent Living Program service providers, mental health and other therapeutic service providers, law enforcement agencies, foster parents, health and education providers, and public health nurses) could access the system.
- With a greater ability of remote access, information could be entered into the system in a more timely fashion. In addition, this ability provides a more collaborative environment as information can also be directly accessed while in the field.
- Improve the CWS worker's access to system information outside the standard office environment
- Improve Service Provider and Service Organization access to business practice and individual case information

- **Document Storage**

There is a need to provide the ability to store multiple electronic document types. For example, many Juvenile Court judges are requiring the use of digital photographs in the case record, which necessitates storage and management of digital photographs. Currently the CWS/CMS only supports storing of Microsoft Word documents. With improved technology, the ability to store and retrieve a variety of electronic document types (i.e., pictures, scanned images, signatures, etc.) could be achieved. This would allow the CWS worker to store pictures of abused children, pictures of living conditions, and the ability to store legal documents from court (e.g., third party reports).

- **SACWIS Interfaces**

Multiple barriers reduce service delivery efficiency to troubled families - Income support, employment services, and CWS are offered by the same agency in most California counties. However, families requiring services from multiple programs routinely find they are assigned one or more caseworkers for each program and asked many of the same questions by those different workers. The current process of sharing information and collaborating on cases is inefficient and subject to multiple errors. The physical process requiring printing of case/client information to share with a co-worker treating the same client, or members of the same family, is very cumbersome. The information contained on the printout is re-keyed by the other worker into the other system. For example, a CWS worker places a child in foster care. Information on the child and a case is printed out and given to the eligibility worker. The eligibility worker then re-enters the information into his/her respective system. As the paper is printed and distributed to and from the various

workers to share information, it is sometimes lost and/or mishandled. Additionally, because of time and job pressures, it is sometimes not entered into the other system. The current process of sharing information and collaborating on cases is cumbersome, inefficient, and subject to multiple errors. These multiple barriers can be reduced through implementation of the SACWIS interface functionality.

- **SACWIS Title IV-E Eligibility Determination**

SACWIS requirements mandate that CWS/CMS or an external system must provide for the ability to establish an individual's eligibility and ensure that all eligibility factors are consistently and accurately applied. Lack of Title IV-E eligibility determination puts the project at risk for loss of certification status and ineligibility for enhanced Federal Financial Participation (FFP). The impact of not implementing this functionality amounts to more than twenty minutes of manual work per CWS worker per week.

No Automated IV-E Eligibility Determination

Heavy workload for IV-E eligibility determination – The IV-E eligibility determination (ED) process imposes a heavy workload on CWS workers and eligibility workers due to the prevalence of manual, work-intensive processes. Social and eligibility workers have to access a variety of disparate systems (CWS/CMS, CalWORKS, Medi-Cal, Income Eligibility and Verification System (IEVS), county payment systems) to gather all of the required information for a IV-E case. Integration between these systems is limited, increasing the problems of excessive data entry, storage of redundant information, and inconsistent data. In addition, probation officers who belong to a separate agency and have no access to any child welfare systems handle probation cases. The lengthy IV-E ED information gathering process can take anywhere from two hours to two days. This results in the need for additional staff and reduces the time CWS workers can spend with their clients. It increases the administrative overhead associated with the transmission of paper documents between facilities and workers because paper files are maintained in multiple locations.

Inaccurate and inconsistent determination of IV-E eligibility – IV-E Eligibility Determination is primarily a manual process that can vary in its implementation from one county to another. The IV-E Eligibility Determination process must be automated throughout the State to improve its accuracy and remove inconsistent application of policy among eligibility workers and counties. Furthermore, CWS workers and eligibility workers require much of the same information, but have very different responsibilities and often report to separate organizations. These inconsistencies can significantly degrade the quality of services provided by the program.

- **SACWIS Adoptions Case Management**

The lack of adoptions case management functionality is a barrier to meeting recent state and federal laws, compromises the State's adoption program data, and is insufficient to meet the needs of a rapidly expanding statewide adoption program.

Beyond these business needs, SACWIS requirements mandate that CWS/CMS must provide the ability for a full case management function. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding participation. The lack of full automation results in the manual processing of forms and reports, which ultimately delays successful outcomes.

The lack of adoptions case management functionality is a barrier to meeting the requirements of recent state and federal laws.

- The implementation of the federal Adoption and Safe Family Act (ASFA) and conforming state statute have created a significantly heightened priority on adoptions by requiring a hearing to discuss a permanent plan for the child, such as adoption, on every child residing in foster care more than one year. California law further requires that adoption determinations be based on an assessment by an adoption agency. Due to these laws, there is significant additional workload for adoptions, particularly in the area of child and applicant assessment, which is not supported by the existing application.
- AB 1544 (Statutes of 1997, Chapter 793) mandates concurrent planning to move children to permanent homes more quickly. Concurrent planning is a child welfare case planning methodology used when children are removed from their parents' custody due to abuse or neglect and placed into foster care. During the time efforts are being made to return the child home, a contingency plan is developed in the event reunification efforts are unsuccessful. Since this contingency plan is often adoption, this further increases the emphasis on adoption when children in foster care are unable to return home. The existing application does not provide support for concurrent services planning. This functionality would allow workers to document the two service tracks required by law and regulation in CWS/CMS.

The lack of adoptions case management functionality compromises the State's adoption program data.

- CWS/CMS captures minimal adoptions data. CDSS captures the remaining adoptions data through manual processes. Significant county and state efforts could be minimized if this were automated.

The existing adoption functionality is insufficient to meet the needs of a rapidly expanding statewide adoption program.

- Over the last few years, changes in both state and federal laws have increased emphasis on adoption to provide permanence for foster children who are unable to return to their parents. This new focus is moving more foster children to adoption than ever before. Through the California Adoption Initiative, the number of children placed for adoption nearly doubled from 3,265 in SFY 1995/96 to 6,141 in SFY 1998/99. These numbers have increased to over 7,000 for SFY 2005/06. In addition, the number of children freed for adoption has significantly increased over previous years.

- Historical data shows that less than 60 percent of children entering foster care in any given year will return to their parents within the first six years in foster care. With 74,000 children in care, the task of providing children with permanent homes is substantial. Without permanent homes, children will remain in foster care until age 21.

Given the expansion of the statewide adoption program, traditional quality assurance efforts are increasingly impractical. However, automated or online case reviews cannot be performed. The current CWS/CMS application is limited and cannot be used by the State to perform quality assurance functions on adoption cases. For instance, the CWS/CMS application cannot be used to determine if fundamental regulatory requirements have been met. The only current alternative is to review the physical case file, resulting in a significant investment in staff and travel costs. In order to meet the adoption needs of increasing numbers of children, public adoption agencies will have to begin working with the children, their birth parents and potential adoptive parents shortly after the children enter foster care. These agencies will have to be able to use the CWS/CMS to manage their case activities and record required adoption information on behalf of the child. An example of this involves case contacts.

- Current adoption functionality allows the shielding of adoption data elements. However, case contact narratives with children and adoptive applicants cannot be recorded in a way that is protected by adoption privilege early in the management of the case. The process for recording required information for these families on the CWS/CMS application does not support the business needs and does not meet the federal SACWIS requirements.

- **SACWIS Title IV-A (TANF) Interface**

SACWIS requirements mandate that CWS/CMS must provide automated exchange of common and/or relevant data with the Title IV-A system that collects information relating to the eligibility of individuals under Title IV-A (TANF). The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding participation. Today, CWS workers must manually access such data through SAWS, spending about five minutes per case. Automation provides an opportunity to save CWS worker time through an automated interface.

- **SACWIS Title IV-D (Child Support Enforcement) Interface**

SACWIS requirements mandate that CWS/CMS must provide automated exchange of information with the Title IV-D to establish and report a child support case. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding. Today, CWS workers must spend about five minutes per case to help make placement decisions. Automation provides an opportunity to save CWS worker time through an automated interface.

- **SACWIS Title XIX (Medicaid) Interface**

SACWIS requirements mandate that CWS/CMS must provide automated exchange of information needed by the State Medicaid eligibility system to calculate and track Medicaid eligibility. The CWS/CMS currently is not in compliance and this puts the project at risk for loss of certification status and ineligibility for enhanced federal funding. Today, CWS workers must spend about five minutes per case to help make placement decisions. Automation provides an opportunity to save CWS worker time through an automated interface.

- Improve the accuracy and completeness of data through information exchange interfaces to SACWIS Title IV-A (TANF), SACWIS Title IV-D (Child Support Enforcement), SACWIS Title XIX (Medicaid), SACWIS Title IV-E Eligibility Determination, DOJ and other agency data repositories.
- Provide information exchange interfaces to the family and juvenile courts to facilitate enhanced communications resulting from improved information availability and exchange.
- Increase client/provider benefits support through improved financial management system information exchange interfaces

The following table identifies the business area and business problem/opportunity that define the objectives to be achieved through the services provided by the new solution.

Table 3-6 – Business Objectives Analysis

BUSINESS AREA	BUSINESS PROBLEM OR OPPORTUNITY	BUSINESS OBJECTIVES
1.0 Information Management	1.1 High number of manual data entry and approval processes result in data entry errors which contribute to a large number of erroneous foster care payments issued.	1.1.1 Reduce unrecoverable Foster Care Overpayments by 1% by October 2018
2.0 System Design	2.1 The workers have limited ability to mobile access to the system which results in inefficiencies in staffing and contributes to child placement stability issues.	2.1.1 Reduce the number of inefficiencies in completing assessments from 8 hours to 6 hours through virtualizing the office by October 2018.
		2.1.2 Reduce the number of inaccurate assessments by 1% of 100,000 cases by virtualizing the office by October 2018.
3.0 Document Management	3.1 CWS/CMS has limited capability to store and retrieve large volumes of critical information required by the worker resulting in the untimely access to information contributing to the providing timely and accurate	3.1.1 Improve the delivery of critical information to the workers by 2 hours per week by October 2018.

	client services.	3.1.2 Reduce client services referral errors by 5% of 500,000 referrals by October 2018.
4.0 SACWIS Compliance	4.1 High number of manual data entry processes for eligibility results in increased CWS worker administrative overhead causing reduced time spent with clients.	4.1.1 Increase average time spent with clients by 1 hour per worker per day by October 2018.
	4.2 High number of manual data entry adoption case management processes results in increased time to complete an adoption causing increased placement costs.	4.2.1 Reduce average adoptions case reporting time by 6 hours from 20 hours per case by October 2018.
		4.2.2 Reduce average time for routing adoption forms by 30 minutes from 120 minutes per case by October 2018.
		4.2.3 Reduce average adoption forms completion by 6 hours from 20 hours per case by October 2018.
		4.2.4 Reduce payment of foster care monies from $60 to $30 per day, per case for each month over 24-months of eligible children (children with parental rights terminated) to AAP by October 2018.
	4.3 Ongoing delays of implementing SACWIS functional areas jeopardizes FFP funding and creates the possibility of payback of funding.	4.3.1 Implement the remaining seven major SACWIS functional areas to prevent increasing current annual SGF costs, from $40 million per year to approximately $51 million per year by October 2018.
		4.3.2 Implement the remaining seven major SACWIS functional areas to pass federal auditing by October 2019 to prevent possible FFP payback of all prior FFP payments to the state.

3.3.1 Project Performance Indicators Evaluation Plan

The following table provides a description of the business objectives, recipient of value, performance indicators, the date to achieve the target, and the methodology to measure the performance level. The target estimates are planned to be measured against the baseline one year after full implementation of the CWS-NS, which is planned to occur in September 2017.

Table 3-7 – Project Performance Indicators Evaluation Plan

Business Objective	Recipient of Value	Metric	Baseline	Target	By Date	Methodology
1.0 Information Management						
1.1.1 Reduce unrecoverable Foster Care Overpayments by 1% by October 2018	58 counties, CDSS and the State of CA	Total unrecoverable Foster Care Payments per month by 1 percent	$375,000 per month	$ 371,250 per month	Oct 2018	Statistical analysis of the reported unrecoverable Foster Care Overpayments and the total $ recovered
2.0 System Design						
2.1.1 Reduce the number of inefficiencies in completing assessment from 8 hours to 6 hours by virtualizing the office by October 2018	58 counties, CDSS and the State of CA	Total hours worked outside assigned office	170,000 hours	270,900 hours	Oct 2018	Statistical analysis of the case-related assessment hours executed from mobile devices
2.1.2 Reduce the number of inaccurate assessments by 1% of 100,000 cases by virtualizing the office by October 2018.	58 counties, CDSS and the State of CA	Total number of inaccurate assessments	3% of 100,000 cases	1% of 100,000 cases	Oct 2018	Statistical analysis of accuracy of the case-related assessments executed from mobile devices

Business Objective	Recipient of Value	Metric	Baseline	Target	By Date	Methodology
3.0 Document Management						
3.1.1 Improve the delivery of critical information to the workers by 2 hours per week by October 2018	58 counties, CDSS and the State of CA	Number and type of documents submitted and successfully stored in the document repository	10 per referral plus 10 per case	5,000 per referral plus 15,000 per case	Oct 2018	Statistical analysis of the number and type of documents submitted and associated with cases
3.1.2 Reduce client services referral errors by 2% of 100,000 referrals by October 2018	58 counties, CDSS and the State of CA	Total number of referral errors	4,000 client services referral errors	2,000 client services referral errors reduced	Oct 2018	Statistical analysis of the number and type of documents submitted and associated with cases
4.0 SACWIS Compliance						
4.1.1 Increase average time spent with clients by 1 hour per worker per day by October 2018.	58 counties, CDSS and the State of CA	Elapsed time required to complete entry/ submission of eligibility data	45 minutes per case	40 minutes per case	Oct 2018	Performance measurement and analysis of the average data entry time of information for eligibility determination
4.2.1 Reduce average adoptions case reporting time by 6 hours from 20 hours per case by October 2018	58 counties, CDSS and the State of CA	Average of the total time per case required to complete adoption case reporting activities	20 hours per case	14 hours per case	Oct 2018	Statistical analysis of the total time per case required to complete case reporting activities
4.2.2 Reduce average time for routing adoptions forms by 30 minutes per case by October 2018	58 counties, CDSS and the State of CA	Average of total time required per case to complete adoption case form routing activities	2 hours per case	1.5 hours per case	Oct 2018	Statistical analysis of the total time required per case to complete form routing activities

Business Objective	Recipient of Value	Metric	Baseline	Target	By Date	Methodology
4.2.3 Reduce average adoption forms completion by 6 hours from 20 hours per case by October 2018.	58 counties, CDSS and the State of CA	Average of the total time required per case to complete adoption case forms	20 hours per case	14 hours per case	Oct 2018	Statistical analysis of the total time required per case to complete case forms
4.2.4 Reduce payment of foster care monies from $60 to $30 per day, per case for each month over 24-months of eligible children (children with parental rights terminated) to AAP by October 2018	58 counties, CDSS and the State of CA	Total foster care monies paid due to accelerated movement of eligible children to AAP	$60 per day	$30 per day	Oct 2018	Statistical analysis of the total foster care monies paid due to accelerated movement of eligible children to AAP
4.3.1 Implement the remaining seven major SACWIS functional areas to prevent increasing current annual SGF costs, from $40 million per year to approximately $51 million per year by October 2018.	58 counties, CDSS and the State of CA	Prevent increasing current annual SGF costs,	$51 million per year	$40 million per year	Oct 2018	Implement the remaining seven major SACWIS functional areas
4.3.2 Implement the remaining seven major SACWIS functional areas to pass federal auditing by October 2019 to prevent possible FFP payback of all prior FFP payments to the state.	58 counties, CDSS and the State of CA	Pass Federal auditing by October 2019	Partial compliance with SACWIS functional areas	Full compliance with SACWIS functional areas	October 2019	Implement the remaining seven major SACWIS functional areas

3.4 Business Functional Requirements

At the highest level, the State and county child welfare programs seek to protect children from abuse and neglect, support and help families to care for their children safely, and enhance the well-being for all clients served. This mission drives the business needs, objectives, and functional requirements of the Child Welfare Services automated system.

SACWIS defines the universe of child welfare services provision in a schema of high-level business functions. The first three high-level functional areas (Intake Management, Eligibility, and Case Management) trace the basic CWS business process from the collection, screening, and investigation of a referral through the court process, case plan development, service provision, concurrent planning, case status monitoring, and permanency planning. Additional functional areas define requirements for Resource Management, Court Processing, Financial Management, Administration and Interfaces.

The below SACWIS Requirements Matrix provides a high-level view of the federal SACWIS requirements and documents California's current and planned implementation of each one.[1] The columns in the table contain the following information:

- Business Segment: Each business segment represents the SACWIS high-level business functions that must be supported in the SACWIS system.
- Function: Each function represents a sub-process within the larger business segment. These sub-processes form the foundation for the decomposition into process/SACWIS requirements.
- Priority: Priority is defined by the SACWIS guidelines. Process/SACWIS requirement elements with an "R" are required, ones with an "O" are optional and ones with an "S" are state practice only requirements. Optional elements that have green highlight have been selected by the State for incorporation within the system. If a state determines that federal optional functionality is a state operational requirement, the State optional requirement becomes a mandate for federal SACWIS compliance.
- Process/SACWIS Requirement: Each process/SACWIS requirement represents functional capability that must be supported by the delivered system. Detail of the implementation of each process/SACWIS requirement has been captured in the Business Process Workflows and Use Cases that define the business practice. These have been provided in the Business Process Workflow/Use Case. See Appendix G.

NOTE: The information in this table represents an update since the State filed its most recent SACWIS Assessment Review Guide in November 2000.

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[1] *The SACWIS requirements were taken from the following ACF's web site (http://www.acf.hhs.gov/programs/cb/dis/sacwis/sacwis/sacwisreviewguide/appendb.htm).*

Table 3-8 - SACWIS Requirements Matrix

Business Segment	Function	Priority	Process/SACWIS Requirement
Intake Management	Intake	R	1. Record contact/referral
		R	2. Collect intake/referral information
		R	3. Search for prior history (persons/incidents)
		O	4. Record "information only" requests
	Screening	R	5. Evaluate intake information
		R	6. Record the results of the screening evaluation
		R	7. Establish case record
		R	8. Assign case to worker
		R	9. Refer for investigation and/or services, as appropriate
	Investigation	O	10. Collect and record investigation information
		R	11. Record investigation decision
		R	12. Generate documents as needed in response to investigation
	Assessment	R	13. Determine and record risk assessment
		O	14. Perform risk assessment
		R	15. Collect and record special needs/problems
		R	16. Determine and record needed services
		O	17. Record client contacts
		O	18. Prepare and record referrals to other agencies
		O	19. Collect and record further case information
		R	20. Generate documents, notices and reports based on review (as needed)
	State Practice	S	Initiate Differential Response
		S	Submit Suspected Child Abuse Report (SCAR)
		S	Process Received SCAR
		S	Conclude Investigation
Eligibility	Initial Eligibility Determination	R	21. Determine Title IV-E eligibility
		R	22. Record/track legal requirements related to title IV-E eligibility
		R	23. Determine/track a child's title IV-E eligibility in an out-of-home placement
		R	24. Verify eligibility for other programs
		R	25. Record authorization decisions
		R	26. Generate documents related to eligibility determinations
	Changes in Eligibility	R	27. Redeterminations
		R	28. Generate documents related to eligibility determinations
Case Management	Service/Case Plan	R	29. Prepare and document service/case plan
		O	30. Identify and match services to meet the client's case plan needs

Business Segment	Function	Priority	Process/SACWIS Requirement
		O	31. Record contact with and acquisition of needed resources/services
		R	32. Track and update service/case plan
		O	33. Match client to placement alternatives
		R	34. Generate documents (reports, alerts, ticklers & notifications)
		O	35. Request and record supervisory approval of plan
		O	36. Estimate and track actual costs of resources/services
		O	37. Identify program outcome measures
	Case Review/Evaluation	R	38. Generate alerts to conduct case review/evaluation (as needed)
		R	39. Conduct and record results of case review
		R	40. Generate documents, notices and reports based on review as needed
	Facilities Support	R	41. Record collateral contacts
	Monitoring Service/Case Plan Services	O	42. Track and record services identified in the service/case plan
		R	43. Generate documents, notices and reports
		S	Establish ILP
		S	Conduct Investigation
Resource Management	Facilities Support	R	44. Record and update provider information
		R	45. Generate alerts/action items on licensing status changes
		R	46. Generate reconciliation and evaluation reports as needed
		O	47. Record and track provider training
	Foster/Adoptive Homes Support	R	48. Maintain and update foster care and adoptive home information (as needed)
		R	49. Record foster care home abuse/neglect allegations and investigation results
		O	50. Process foster care/adoptive home applications
		O	51. Generate alerts/action items if foster care license is revoked (as needed)
	Resource Directory	O	52. Maintain directory
		O	53. Generate reports
	Contract Support	O	54. Process contracts and contract changes
		O	55. Record contract monitoring results
		O	56. Generate alerts/action items (as needed)
		O	57. Generate documents (as needed)
		S	Create New Person in the System
Court Processing	Court Documents	R	58. Provide for the preparation of State agency documents for family and juvenile courts

Business Segment	Function	Priority	Process/SACWIS Requirement
	Notifications	O	59. Notify relevant parties of impending court actions
	Tracking	R	60. Monitor and track court-related events requiring state agency action
	Indian Child Welfare Act	O	61. Support the requirements of the Indian Child Welfare Act
Financial Management	Accounts Payable	R	62. Support the accounts payable process
	Accounts Receivable	R	63. Support the accounts receivable process
	Claims	R	64. Provider claims processing
Administration	Staff Management	O	65. Record and update employee information
		O	66. Record and update employee information
		R	67. Record and track case assignment
		O	68. Assist in workload management
		O	69. Track employee training
		O	70. Document employee performance
	Reporting	R	71. Produce AFCARS report
		R	72. Produce other Federal Reports
		R	73. Produce state reports
		R	74. Produce statistical reports
	Administrative Support	R	75/76. Provide hardware and software security
		R	77. Provide hardware and software security (contingency plans)
		R	78. Archive and purge
		O	79. Provide office automation
		O	80. Provide on-line system documentation
		O	81. Provide on-line training
Interfaces	Required Interfaces	R	82. Provide for an electronic data interface with other systems
		R	83. Title IV-A (AFDC)
		R	84. Title IV-D (Child Support Enforcement)
		R	85. Title XIX (Medicaid)
		R	86. Child abuse and neglect data system
	Optional Interfaces	O	87. State Central Registry
		O	88. Social Security Administration for title II and SSI information
		O	89. State financial system
		O	90. State licensing system
		O	91. Vital Statistics
		O	92. Court system

Business Segment	Function	Priority	Process/SACWIS Requirement
		O	93. Juvenile Justice
		O	94. Mental health/retardation
		O	95. State Department of Education
Quality Assurance	Quality Assurance	R	88. Quality assurance features incorporated in the system (edits, range checks, and prompts for critical or incomplete data)
		R	89. Other quality assurance functions or related features
Additional Functionality	Additional Functions	R	90. Additional functionality not already described

The following Capabilities Matrix provides a mapping between the business practice Use Cases and the SACWIS Business Segment/Business Function framework (identified in Table 3-4 – SACWIS Requirements Matrix above.) For each business function, a list of “Activity” and “Workflow” requirements has been provided. Each “Activity” represents a capability required by the business function that must be supported by automation (delivered in the solution). Each “Workflow” represents a process that must be supported in the workflow automation of the delivered system. Together, these two define the essential characteristics that the proposed solution must provide to satisfy the defined objectives. This table is a process-based alignment of business practice capability requirements (activity and workflow) with the defined Program Components (refer to Table 3 5 - Capabilities Matrix.)

1 **Table 3-9 - Capabilities Matrix**

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Intake	Intake	UC001 - Perform Referral Intake	1. Record Referral Information 2. Scan document (create digital image) 3. Postal Service address validation 4. Create a new Referral	5. Intake Assessment/Safety Assessment 6. Automated referral assignment 7. Automated referral distribution to external support agencies 8. Automated scanned document information extraction and storage
Intake	Screening	UC002 - Perform Initial Screening	1. Review system provided current and prior history 2. Multiple family involvement referral split 3. Determine response type	4. Automated determination that Referral belongs to another county 5. Automated Referral routing to another county 6. Automated linking to existing open and closed Referrals 7. Automated worker notification of approved Referral “Evaluate Out”
Intake	Investigation	UC006 - Investigate Referral	1. Review assigned referrals 2. Review specific Referral 3. Review referral hierarchical information 4. Review Case history 5. Review/execute an Assessment 6. Develop safety plan 7. Execute contact(s) 8. Generate and print documents 9. Capture electronic signatures 10. Capture referral conclusion	11. Supervisor notification of un-viewed Referral(s)

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Intake	Assessment	UC092 - Perform Assessment of Safety and Risk	1. Execute a new Safety Risk Assessment 2. Update an existing Safety Risk Assessment 3. Record assessment results and/or decisions 4. Acquire background data for assessment via interfaces 5. Acquire background data for assessment from the system database 6. Record contact results 7. Record alternative assessment recommendation (with rationale)	8. Automated system determination of required assessment(s) to be completed 9. Automated worker notification of required assessment(s) to be completed 10. Automated system determination that all information required to complete and assessment has been collected 11. Automated system determination of an assessment recommendation (based on assessment calculations) 12. Automated system association of assessment with client case record 13. County configurable assessment approval process 14. Automated (completed) assessment routing to Supervisor for approval 15. Automated system notification of additional assessments that require completion

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Intake	Assessment	UC093 - Perform Assessment of Strengths and Needs	1. Establish a case plan goal 2. Capture information collected during each assessment 3. Initiate assessment calculations and recommendation 4. Review of assessment recommendation 5. Provision of alternative assessment recommendation (when Worker determines it is appropriate)	6. Automated system notification to complete a child/family strengths assessment 7. Automated system notification to complete a child/family needs assessment 8. Automated system notification to complete a parent/caregiver protective capacity assessment 9. Automated system notification to complete a child's placement needs assessment 10. Monitoring and display of assessment status in Worker's Referral/Case Checklist and/or Case/Referral required activities listing 11. Automated system validation that all necessary data to complete an assessment has been collected 12. Automated system notification of missing data required for completion an assessment 13. Automated system generated assessment recommendation 14. Automated system generated assessment overview (with County configurable requirement for viewing and validation of the calculated recommendation) 15. Automated system association of assessment with case record 16. County configurable assessment approval and closure processes
Intake	Assessment	UC094 - Perform Assessment of Safety Plan	1. Initiate a safety plan 2. Schedule a meeting to discuss the Safety Plan 3. Attach copy of draft Safety Plan to meeting notice (if desired) 4. Update safety plan content as needed 5. Submit Safety Plan for Supervisor approval 6. Acquire signatures/electronic signatures on the final Safety Plan	7. Automated system generation of a Safety Plan

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Intake	State Practice	UC003 - Initiate Differential Response	1. Record Worker selected Differential Response level	2. Automated primary Worker and Supervisor notification of new Referral 3. Automated referral information transmittal to Licensing or Registration facility 4. Automated referral notification to county Assigner 5. Automated Response Assessment based on Referral information 6. Automated response level recommendation 7. Automated differential response service determination 8. Automated child welfare response need determination 9. Automated Worker safety information determination/inclusion in Referral
Intake	State Practice	UC004 - Submit Suspected Child Abuse Report	1. SCAR Reference Number based search	2. Verification of on-line SCAR submission 3. Automated routing of received SCAR to appropriate Worker
Intake	State Practice	UC005 - Process Received SCAR	1. Scan document (create digital image) 2. SCAR Reference Number based search	3. Automated association of SCAR to Referral 4. Automated routing of the SCAR to the District Attorney's Office 5. Automated routing of the SCAR to the Local Law Enforcement Agency 6. Automated routing of the SCAR to the Community Care Licensing Office 7. Automated Worker notification of SCAR receipt 8. Automated Referral Investigator notification of SCAR receipt 9. Automated scanned document information extraction and storage

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Intake	State Practice	UC098 - Conclude Investigation	1. Record investigation results 2. Verify investigation is complete 3. Generate child abuse summary report 4. Record emergency response services end date 5. Activate/deactivate a case	6. System automated distribution of Child Abuse Summary Report 7. System automated notice generation 8. Route referral investigation results for Supervisor approval 9. Approved referral transferred for assignment 10. System automated worker notification of case assignment 11. System automated worker notification of scheduled contact(s)
Eligibility	Initial Eligibility Determination	UC042 - Initiate Benefit Application	1. Acquire benefit application forms 2. Update system populated benefit application forms 3. Capture electronic signature 4. Capture child support referral determination 5. Update system populated child support questionnaire 6. Request approval of eligibility Benefit applications 7. Execute a non referral to child support 8. Execute child support waiver verification 9. Execute child support	10. Automated system population of benefit application forms 11. Automated notification of eligibility for other source income based on the eligibility Benefits application information 12. Automated system population of child support questionnaire 13. Automated notification of eligibility Benefits application approval/denial
Eligibility	Initial Eligibility Determination	UC044 - Process Benefit Application	1. Review assigned cases and tasks 2. Review eligibility Benefit applications information 3. Update eligibility Benefit applications information 4. Request eligibility Benefit determination approval 5. Facilitate issuance of payment instructions	6. Automated notification that an eligibility Benefit application is pending 7. Automated notification that an AAP rate has been negotiated 8. Automated status determination 9. Automated notification of incomplete eligibility Benefit application information 10. Automated eligibility Benefit application processing based on Benefit type 11. Automated Benefit rate calculation 12. Automated eligibility date (start or finish) calculation 13. Automated Eligibility Worker (SAWS) notification of Benefit applications 14. Automated Emergency Shelter Care payment determination

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
				15. Automated Eligibility Worker (SAWS) notification of determination decisions 16. Automated clothing allowance calculation 17. Automated supplemental rate calculation for Whole Foster Family Home with a Shared Responsibility Plan 18. Automated notification of potential Special Care Increment (SCI) or Infant Supplemental eligibility 19. Automated Child Health and Disability Prevention (CHDP) referral generation 20. Automated redetermination due date calculation and Worker notification/tasking 21. Automated eligibility Benefit application approval status change notification
Eligibility	Initial Eligibility Determination	UC045 - Apply For Emergency Assistance Eligibility	1. Create an Emergency Assistance Application 2. Review the Emergency Assistance Application information 3. Update the Emergency Assistance Application information 4. Capture signature/electronic signature of Parent/Guardian or worker completing the Emergency Assistance Application 5. Request approval of Emergency Assistance Application 6. Review assignments and tasks 7. Determine child activity in the Assistance to Children in Emergency System (ACES)	8. Automated population of Emergency Assistance Application information 9. Automated notification to eligibility division of Emergency Assistance Application requiring assignment 10. Automated notification to Eligibility Supervisor when and assignment or task is not viewed within configured time period 11. Automated system assignment or task status management 12. Automated inquiry to check if child is active in the Assistance to Children in Emergency System (ACES) 13. Automated determination of Emergency Assistance Application eligibility 14. Automated Emergency Assistance eligibility period and aid code determination 15. Automated request through MEDS interface to update the Assistance to Children in Emergency System (ACES) 16. Automated Worker notification of Emergency Assistance application approval status

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Eligibility	Initial Eligibility Determination	UC046 - Initiate Adoption Assistance Program	1. Receive AAP 1 from an adoptive caregiver 2. Initiate the Adoption Assistance Program (AAP) Benefit application 3. Review the Adoption Assistance Program (AAP) Benefit application 4. Update the Adoption Assistance Program (AAP) Benefit application 5. Request eligibility determination of the Adoption Assistance Program (AAP) Benefit application 6. Review assigned cases and tasks 7. Schedule/complete contact 8. Obtain electronic signature	9. Automated population of Adoption Assistance Program (AAP) Benefit application 10. Automated assignment of the Adoption Assistance Program (AAP) Benefit application 11. Automated Adoption Assistance Program (AAP) Benefit application status management 12. Automated determination of application information alignment with the federal title IV-E eligibility criteria 13. Automated notification of incomplete Adoption Assistance Program (AAP) Benefit application information 14. Automated AAP determination 15. Automated AAP Special Needs Eligibility determination 16. Automated judicial findings / signed relinquishment determination 17. Automated barrier to adoption determination (i.e., age, adverse parental background, minority ethnicity or physical/mental health problems) 18. Automated determination that no effort was made to locate a non-subsidy placement 19. Automated notification of eligibility determination 20. Automated applicant citizenship determination 21. Automated federal AAP eligibility determination 22. Automated county AAP eligibility determination 23. Automated State AAP eligibility determination 24. Automated determination of Federal AAP eligibility for non-applicable child 25. Automated determination of Federal AAP eligibility for applicable child

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Eligibility	Initial Eligibility Determination	UC086 - Determine AFDC-FC Eligibility	1. Refer applicant child case for Temporary Assistance for Needy Families (TANF)	2. Automated applicant child federal title IV-E eligibility determination 3. Automated applicant child citizenship and age requirement determination 4. Automated applicant child authority for placement determination 5. Automated Federal AFDC-FC application eligibility status management 6. Automated applicant child deprivation criteria determination 7. Automated applicant child income / property limit determination 8. Automated parent/guardian and child income AFDC-FG/U linkage criteria determination 9. Automated placement facility eligibility criteria (licensed or approved) determination 10. Automated Federal AFDC-FC application eligibility determination 11. Automated County AFDC-FC application eligibility determination 12. Automated State AFDC-FC application eligibility determination 13. Automated Worker notification of eligibility determination

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Eligibility	Initial Eligibility Determination	UC087 - Determine KinGAP Eligibility		1. Automated applicant child KinGAP application eligibility criteria determination 2. Automated applicant child income property threshold determination 3. Automated applicant child citizenship and age requirements determination 4. Automated applicant child written agreement alignment determination 5. Automated applicant child "adjudged a dependent or ward of the Juvenile Court" eligibility criteria determination 6. Automated placement facility eligibility criteria (licensed or approved) determination 7. Automated determination that the child has lived with a relative caregiver for 12 consecutive months or more 8. Automated determination that relative guardianship per W&IC 366.26 or 727.3 has been granted by the Court 9. Automated determination that the child's dependency or wardship has been dismissed by the Juvenile Court
Eligibility	Initial Eligibility Determination	UC105 - Automate Other Payments		• Automated issue of the annual clothing allowance • Automated determination of the annual clothing allowance eligibility • Automated management of the annual clothing allowance eligibility status • Automated Worker notification of annual clothing allowance eligibility • Automated calculation of the annual clothing allowance amount • Automated calculation of the base rate Automated Worker notification of annual clothing allowance base rate change

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Eligibility	Initial Eligibility Determination	UC106 - Initiate Special Funding	1. Establish child's Special Care Increment (SCI) parameters 2. Determine type of special funding 3. Update SCI information 4. Request SCI 5. Request SCI approval 6. Request Infant Supplemental funding	7. Automated population of Special Care Increment (SCI) information 8. Automated management of the SCI status 9. Automated Worker notification of approval status 10. Automated calculation of the SCI rate 11. Automated calculation of the SCI beginning date 12. Automated calculation of the SCI redetermination due date 13. Automated Worker notification of the redetermination due date 14. Automated Worker notification to apply for special funding 15. Automated determination if child is eligible for the infant supplemental assistance program 16. Automated management of the infant supplemental assistance program status 17. Automated calculation of the infant supplemental assistance program rate
Eligibility	Changes in Eligibility	UC043 - Initiate Eligibility Redetermination	1. Review assigned tasks 2. Initiate Adoption Assistance Program 3. Update eligibility Benefit application information 4. Request redetermination eligibility Benefit application approval 5. Review assigned cases and tasks 6. Initiate Adoption Assistance Program	7. Automated assignment of redetermination tasks to a CWS Worker 8. Automated eligibility Benefit application information provided for redetermination task 9. Automated system population of benefit application forms 10. Automated system determination of incomplete eligibility redetermination Benefits application information 11. Automated notification of eligibility redetermination Benefits application approval/denial 12. Automated system determination of Benefit type, based on the submitted eligibility redetermination Benefits application information 13. Automated system calculation of Benefit rate changes 14. Automated system determination of

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
				overpayment/underpayment conditions
Case Management	Service/Case Plan	UC008 - Make a Case Plan Goal Decision	1. Review safety and risk assessment 2. Update client contact information 3. Perform Strengths and Needs assessments (child and/or parent) 4. Establish Family Maintenance as the Case Management decision 5. Establish Family Reunification as the Case Management decision 6. Establish Permanency Planning as the Case Management decision 7. Apply for Special Immigrant Juvenile Status (SIJS), when appropriate 8. Develop the case plan 9. Determine if Voluntary Services should be offered 10. Determine if Voluntary Family Maintenance or Voluntary Family Reunification Services should be offered	

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC009 - Develop the Case Plan	1. Review the case management decision 2. Create a case plan 3. Review existing assessment information 4. Review existing Demographic Information 5. Review Strengths and Needs Assessment 6. Review Safety and Risk Assessment 7. Review sustained petition 8. Update case plan information 9. Update case management information 10. Update concurrent planning information 11. Determine case plan services required to meet objectives 12. Request approval 13. Request services and goods 14. Complete case plan 15. Capture signature on case plan 16. Manage services and goods information	17. Automated population of the case plan template 18. Automated Transitional Independent Living Plan (TILP) need determination 19. Automated provision of selected/populated case plan pages 20. Automated case plan deadlines, reminders and milestones population 21. Automated identification of services relevant to a particular selected Safety/Risk issue 22. Automated identification of services relevant to a particular sustained petition allegation
Case Management	Service/Case Plan	UC010 - Initiate Concurrent Planning	1. Review Family Strengths and Needs 2. Review family demographic information 3. Determine Concurrent Case Plan goal 4. Perform Adoptability Assessment 5. Initiate Concurrent Case Plan 6. Update Concurrent Case Plan information 7. Assign secondary worker to Concurrent Case Plan 8. Schedule meeting/meetings to discuss case plan Concurrent Case Plan 9. Determine guardianship eligibility and alternatives	10. Automated population of the Concurrent Case Plan 11. Automated provision of pre-populated template for development of the Concurrent Case Plan 12. Automated Worker notification of missing Concurrent Case Plan information

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC011 - Monitor the Case Plan	1. Review the case plan 2. Review case plan service objectives 3. Update case plan 4. Associate service objectives to abuse, allegations, and court ordered requirements 5. Monitor service objective attainment against abuse, allegations, and court ordered requirements 6. Communicate with Service Providers to discuss and identify possible needs 7. Record family and child progress 8. Address family and child needs 9. Capture court orders and findings	10. Automated management of the case plan status 11. Automated tracking of case plan changes to determine possible Worker actions
Case Management	Service/Case Plan	UC012 - Develop TILP Establish ILP	1. Perform a Life Skills Assessment 2. Determine needs and resources available to the youth or other participants 3. Determine ILP Activities to associate with TILP Service Goal 4. Review case plan 5. Develop/Update case plan 6. Acquire child/family agreement/signatures on TILP 7. Acquire caregiver agreement/signatures on ILP 8. Monitor/Update TILP 9. Monitor/Update ILP 10. Request TILP goods and services 11. Request approval 12. Prepare court documentation	13. Automated Worker notification when child enters the age range for Independent Living Plan (ILP) 14. Automated Worker notification that a Transitional Independent Living Plan (TILP) needs to be established for a child 15. Automated population of ILP template with case information 16. Automated provision of Independent Living Plan (ILP) Service Goals 17. Automated association of the ILP Service Goals with the TILP 18. Automated provision of ILP activities that may be used to help achieve the Service Goal 19. Automated Worker notification of incentives offered to the youth to complete the ILP goals 20. Automated notification of next required update for the TILP
Case Management	Service/Case Plan	UC013 - Monitor and Update the TILP	1. Review TILP information (especially information entered by external users) 2. Monitor progress against the TILP goals 3. Update the TILP information 4. Review/Gather information on needs and interests of youth 5. Prepare youth for emancipation	14. Automated population of TILP information 15. Automated notification of next required update for the TILP

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			6. Capture signatures for updated TILP (new goals, progress on existing goals) 7. Request services and goods 8. Notify Financial Management of authorized goods and funds 9. Notify Financial Management of tracking of expenditures used towards incentives 10. Request approval 11. Finalize TILP 12. Prepare court documentation 13. Develop transition plan	
Case Management	Service/Case Plan	UC102 - Update the Case Plan	1. Review secondary assignments for incomplete tasks 2. Schedule meetings 3. Update allowable case plan data elements 4. Review/Update case plan objectives 5. Review/Update case plan planned services and goods to address safety and risk factors, or new/modified court ordered services 6. Review Sustained Petition information 7. Request services and goods 8. Capture participant signature (wet or electronic) 9. Request approval 10. Provide participant with copy of case plan 11. Prepare court documentation	12. Automated population of active case plan information 13. Restriction of case plan updates to only allowable data elements 14. Automated population of Case Plan Calendar with reminders and milestones 15. Automated notification of Court Event Outcome requiring modifications to the Case Plan
Case Management	Service/Case Plan	UC111 - Request Special Immigrant Juvenile Status	1. Permanency Planning Worker receives Form JV 224 Order Regarding Eligibility for Special Immigrant Juvenile Status and processes into system 2. Request approval 3. Review/Update I-360 Petition 4. Update person's information 5. Notify court of Immigration and Naturalization Service decision	6. Automated population of the I-360 - Petition for Amerasian, Widow(er) or Special Immigrant 7. Automated guidance through the process of collecting supporting information and documentation to complete Form I-360
Case Management	Service/Case Plan	UC112 - Activate a Case	1. Search for adult and/or child in the system 2. Reactivate an inactive case 3. Activate a new case	6. Automated population of new case information (if child or parent exists in the system)

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			4. Assign case to Worker 5. Update case information	7. Automated population of existing case record for inactive case 8. Automated determination of a change in placement 9. Automated Worker notification of a change in placement
Case Management	Service/Case Plan	UC113 - De-Activate Case	1. Update Client information 2. Review/Update case plan 3. Review/Update Placement information 4. Review/Update case information 5. Request approval	6. Automated verification of services provided to selected case plan 7. Automated cancellation of future court hearings (when placement is terminated) 8. Automated recall of warrant 9. Automated Worker notification to cancel the RAP Back Notifications 10. Automated case deactivation (when all deactivation criteria has been met)
Case Management	Service/Case Plan	UC116 - Perform Life Skills Assessment	1. Find youth/young adult in the TILP 2. Create/Update the Life Skills Assessment information	3. Automated Worker notification that a youth is eligible for Independent Living Skills Services 4. Automated Worker notification to complete the Life Skill Assessment 5. Automated population of Life Skill Assessment information
Case Management	Service/Case Plan	UC018 - Initiate Placement	1. Review the child's placement needs 2. Review Strengths and Needs assessment information 3. Update placement specific needs of the child 4. Locate potential non-relative extended family members (NREFM) for placement 5. Initiate ICPC placement for out-of-state (NREFM) interested in placement of the child 6. Initiate Caregiver Application for in-state (NREFM) interested in placement of the child 7. Initiate non-NREFM placement 8. Determine best placement for the child 9. Search system for caregiver candidates for placement 10. Create new caregiver in the system	11. Automated Worker notification of relative/NREFM assessment completion 12. Automated Worker notification when a new (sponsored) caregiver application has been entered into the system

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC019 - Perform Placement Matching	1. Initiate placement match 2. Review/Update placement match criteria 3. Initiate placement 4. Initiate out-of-state ICPC placement 5. Refer the child(ren) for publication when an acceptable caregiver is not available	6. Automated population of child(ren) placement needs with placement match criteria 7. Automated search for licensed and approved adoptive caregiver homes 8. Automated storage of the placement match results for a specified period of time 9. Automated notification of historical caregiver concerns
Case Management	Service/Case Plan	UC020 - Make Placement	1. Contact the relative/NREFM caregiver to ensure their willingness to accept a placement 2. Initiate new placement match 3. Review child's history with prospective caregiver 4. Schedule court hearings 5. Review court order 6. Initiate the Adoption Assistance Program 7. Update placement information 8. Generate placement forms and placement notices 9. Create a written shared responsibility plan 10. Capture signatures (wet or electronic) on placement forms 11. Confirm and complete placement in system 12. Process adoptive placement 13. Process out-of-state placement 14. Review/Update placement termination (end) information 15. Notify receiving state that an inactive placement was an outgoing ICPC	16. Automated Worker notification of received court order 17. Automated update of pending placement to placed in the caregiver's home 18. Automated Worker notification to apply or change Benefits for the child 19. Automated calculation of the end date and time of an active placement 20. Automate notification to Eligibility Worker that there has been a change in placement status

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC021 - Process Incoming ICPC Requests	1. Validate the ICPC request is complete 2. Record a new incoming ICPC Case 3. Review/Update the incoming ICPC request 4. Refer the ICPC request to a CWS Worker to conduct the home study 5. Complete the ICPC 100A information with the receiving state's recommendation	6. Automated data extraction from forms 7. Automated association of extracted data to the incoming ICPC case 8. Automated determination of the due date for the incoming ICPC Home Study request 9. Automated Worker notification when the requested home study is completed 10. Automated population of the ICPC100A form with the required home study results
Case Management	Service/Case Plan	UC022 - Monitor Incoming ICPC Placements	1. Review assigned cases and tasks 2. Review incoming ICPC placement case information 3. Verify service delivery 4. Complete the ICPC progress report 5. Review the ICPC progress report	6. Automated Worker notification that an incoming ICPC placement case has been assigned to their caseload 7. Automated determination of contact due date 8. Automated determination of ICPC progress report due date 9. Automated Worker notification that an ICPC progress report is ready to be sent
Case Management	Service/Case Plan	UC023 - Prepare Outgoing ICPC Placements	1. Review child's case information 2. Complete the ICPC100A 3. Review/Update the outgoing ICPC case information 4. Generate supporting ICPC documentation 5. Review received ICPC 100A and completed home study 6. Record placement decision 7. Provide the Court with the outgoing ICPC home study and the placement decision	8. Automated population of ICPC case information 9. Automated Worker notification of the outgoing ICPC packet completion 10. Automated notification to the Worker that an ICPC packet is pending 11. Automated assignment of the outgoing ICPC case to a Worker 12. Automated Worker notification that outgoing ICPC information is ready for review

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC024 - Perform Guardianship Home Study	1. Search for a child 2. Review child's case information 3. Initiate a guardianship home study 4. Schedule a meeting with the caregiver(s) 5. Contact the child's Indian tribe if the child meets the criteria within the Indian Child Welfare Act 6. Initiate criminal background check for caregiver(s) 7. Complete the guardianship home study 8. Review/Update caregiver information 9. Validate all activities for the guardianship home study have been completed 10. Record the outcome of the Case staffing 11. Generate the completed guardianship home study document 12. Provide the guardianship home study information to the Court	13. Automated Worker notification of Court ordered guardianship home study 14. Automated Worker notification incoming ICPC request assignment 15. Automated creation of list of activities to complete the guardianship home study 16. Automated Worker notification if the caregiver(s) have a current background check recorded in the system
Case Management	Service/Case Plan	UC115 - Prepare Outgoing ICPC Placements Group Home	1. Review child's case information 2. Review child's Case placement needs assessment information 3. Complete the request to place a child in an out of state group home 4. Generate the outgoing ICPC group home request documentation 5. Schedule a multidisciplinary meeting 6. Record the outcome of the multidisciplinary meeting 7. Update the placement recommendation 8. Set a hearing and prepare the documentation for Court 9. Review a court order 10. Review/Update Interstate Compact Placement Request (ICPC100A) 11. Generate supporting Interstate Compact Placement Request (ICPC100A) documents 12. Capture placement decision 13. Review/Update an ICPC 100B	14. Automated Worker notification that a Court order has been received 15. Automated population of Interstate Compact Placement Request (ICPC100A) 16. Automated outgoing ICPC packet assignment to Worker 17. Automated Worker notification of outgoing ICPC packet assignment 18. Automated Worker notification of an ICPC placement decision 19. Automated population of the Interstate Compact Placement Request (ICPC 100B) 20. Automated assignment of the Interstate Compact Placement Request (ICPC 100B) to a Worker 21. Automated Worker notification of an Interstate Compact Placement Request (ICPC 100B) assignment

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC027 - Perform Relinquishment of Child	1. Review a Relinquishment of Child task 2. Associate child with the relinquishment 3. Associate relinquishing parent with the relinquishment 4. Search for the relinquishing parent 5. Review/Update relinquishing parent information 6. Create a case 7. Review/Update case information 8. Record contact information 9. Review/Update parental information (legal claim to the child and their legal status) 10. Terminate the relinquishment process 11. Request services and goods 12. Determine if a Permanency Planning/Adoptability Assessment has been completed 13. Review/Update relinquishment 14. Complete the relinquishment 15. Request approval 16. Schedule a court hearing to request orders giving the agency the right to custody and control of the child 17. Capture parent signature on Voluntary Placement Agreement (SOC 155) 18. Request a copy of a deceased parent death certificate(s) from the Electronic Death Registration System	19. Automated Worker notification of Relinquishment of Child task assignment 20. Automated population of case information 21. Automated population of relinquishment information 22. Automated Worker notification that Permanency Planning/Adoptability Assessment has been completed 23. Automated Worker notification of response to Court Calendar Event request 24. Automated Worker notification that the Order to Publish time period has elapsed 25. Automated Worker notification of receipt of death certificate

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC028 - Perform Rescission of Adoption Relinquishment	1. Review the assigned Rescission of Adoption Relinquishment tasks 2. Perform Revocation of Adoption Relinquishment 3. Terminate all adoption planning 4. Schedule a contact with the relinquishing parent 5. Determine if the Rescission of Adoption Relinquishment is in the best interest of the child 6. Review/Update Rescission of Adoption Relinquishment information 7. Review case information 8. Request approval 9. Submit a Suspected Child Abuse Report for at risk child 10. Schedule the return of the child 11. Document the child has been returned to the parent 12. End adoption case task 13. Notify relinquishing parent of decision not to place child(ren) with their designated person 14. Notify court and attorneys of decision not to place child(ren) with their designated person	15. Automated Worker notification of Rescission of Adoption Relinquishment task assignment 16. Automated Worker notification that form AD508 was not returned by the specified date 17. Automated Worker notification of the decision to rescind the relinquishment 18. Automated population of the Rescission of Adoption Relinquishment task information 19. Automated Worker notification that the agency has approved a parent's request to rescind the relinquishment of their child 20. Automated Worker notification that the child is either detained or a juvenile court dependent in out-of-home care
Case Management	Service/Case Plan	UC029 - Perform Revocation of Adoption Relinquishment	1. Review assigned Revocation of Relinquishment tasks 2. Notify parent of finalization of adoption 3. Terminate all Adoptive planning for the child after state acknowledged of the Adoption 4. Schedule a contact with the relinquishing parent 5. Update all relinquishment documents "VOID" after the relinquishment has been revoked 6. Review/Update case information 7. Submit a Suspected Child Abuse Report for at risk child 8. Initiate court proceedings to determine	11. Automated Worker notification of Revocation of Relinquishment task assignment 12. Automated Worker notification that form AD508 was not returned by the specified date 13. Automated population of the Revocation of Relinquishment task information 14. Automated population of case information 15. Automated Worker notification that form AD4317 has not been completed by the specified date 16. Automated Worker notification that child needs to be returned to the parent from voluntary Placement

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			custody 9. Schedule a custody hearing 10. Schedule return of child to parent	
Case Management	Service/Case Plan	UC030 - Perform Permanency Planning/Adoptability	1. Review Permanency Planning/Adoptability (PPA) assessment task 2. Review the PPA assessment 3. Review/update the child's service needs 4. Request additional records 5. Review/Update the Adoption Assistance Program checklist and answer the AAP criteria questions 6. Interview/Record child feelings on adoption and preferences in an adoptive family 7. Record child declined adoption 8. Schedule/conduct an interview with the current caregiver 9. Schedule/conduct an interview with Relative/NREFM 10. Record adoption recommendation 11. Request approval	12. Automated Worker notification of Permanency Planning/Adoptability (PPA) assessment task assignment 13. Automated population of case information into the PPA assessment 14. Automated determination/listing of required assessment tasks

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC031 - Conduct Adoption Home Study	1. Review Adoption Home Study information 2. Create required release form(s) 3. Create letter requesting missing information 4. Schedule and conduct in-home interview(s) 5. Request background check(s) on applicable household members 6. Schedule and conduct a safety assessment of the applicant's home 7. Review/update home study results 8. Execute a home study 9. Review completeness of the home study 10. Document recommendation to approve or deny the adoptive home application 11. Complete the Family Available information 12. Request approval 13. Request services or goods to remove concerns from home study results 14. Notify Adoptive Applicant of application decision 15. Process Adoptive Applicant request to withdraw their application	16. Automated Adoption Home Study task assignment 17. Automated Worker notification of Adoption Home Study task assignment 18. Automated population of the Adoption Home Study information 19. Automated determination of required Adoption Home Study tasks
Case Management	Service/Case Plan	UC032 - Provide Post-Placement Supervision	1. Review/update Post-placement Supervision tasks 2. Create Post-placement Supervision waiver 3. Request waiver approval 4. Determine/record number of visits required for Adoptive Placement 5. Request services and goods 6. Review case information 7. Submit Suspected Child Abuse Report for at-risk child 8. Process Adoptive Caregivers wish to change their legal relationship with the child to Legal Guardianship	9. Automated Worker Post-placement Supervision task assignment 10. Automated Worker notification of Post-placement Supervision task assignment 11. Automated population of Post-placement Supervision information 12. Automated determination of required Post-placement Supervision tasks to be completed 13. Automated adjustment of supervision period based on waiver(s) 14. Automated Worker notification when the Post-placement Supervision time period has elapsed

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC033 - Provide Post-Adoption Services	1. Review Post Adoption Services 2. Determine type of Post Adoption services being requested 3. Review case information 4. Provide applicant with required forms to collect information 5. Determine the tasks to be conducted to provide the requested services 6. Request additional services/extension of additional services 7. Schedule and conduct meeting 8. Request approval 9. Monitor progress of approved continued placement 10. Determine the type of reunion services being requested 11. Review submitted AD 904 form(s) 12. Review the Consent for Contact and indicate relatives consenting to a reunion 13. Generate letter disclosing contact information for relatives consenting to a reunion 14. Review background information	15. Automated population of case information 16. Automated population of Post Adoption Services information 17. Automated determination of tasks required to provide the requested additional services 18. Automated Worker notification of additional service(s) with time limit(s) set to expire 19. Automated population of Reunion Services information 20. Automated Worker notification that received AD904 will allow a reunion 21. Automated population of Reunion Services task(s) 22. Automated determination/listing of required background information tasks to be completed

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC034 - Finalize Adoption	1. Schedule contact with family to discuss finalization plans 2. Review the finalize adoption task information 3. Prepare Final Adoption Court Report 4. Request approval 5. Manage adoptive family Non-recurring Expense submitted receipts 6. Review/Update Adoption Fee Waiver information 7. Review Adoption Fee Invoice 8. Request approval 9. Review the 42R Agency Adoption Program – Individual Case Report 10. Review Finalize Adoption task information	11. Automated Worker notification to Finalize Adoption based on petition to adopt notification from a court 12. Automated population of AD 824 Consent and Joinder task information 13. Automated population of Court Report of Adoption – Vital Statistics 44 Task information 14. Automated population of Final Adoption Court Report 15. Automated Worker notification that the Final Adoption Documents have been filed with the court 16. Automated population of Non-recurring Expense Task information 17. Automated population of Adoption Fee Invoice task information 18. Automated distribution of approved forms to the Adoptive Caregiver(s) 19. Automated Worker notification when an Order of Adoption is received from the court 20. Automated assignment of a Termination of Dependency task(s) to the Adoption Worker 21. Automated Worker notification of a Termination of Dependency task(s) 22. Automated Worker notification of Termination of Dependency JV-364 receipt from the court 23. Automated Worker notification of incomplete task information 24. Automated population of 42R Agency Adoption Program – Individual Case Report information 25. Automated population of Finalize Adoption information

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Service/Case Plan	UC035 - Vacate Adoption	1. Review Vacate Adoption task assignment information 2. Review/update the Vacate Adoption petition to vacate adoption order and case history 3. Record the Adoption is under investigation for petition to vacate an adoption order 4. Assign the investigation to a CDSS Adoption District Office 5. Review the notice of petition to vacate an adoption order 6. Assign the case to a District Office Worker 7. Request paper files associated with an adoption case 8. Schedule meetings with agency workers/family involved in the case 9. Review court findings	10. Automated Worker notification that a notice of petition to vacate an adoption order has been received 11. Automated Worker notification of a new Vacate Adoption task assignment 12. Automated District Office assignment recommendation 13. Automated District Office notification of a new Vacate Adoption task assignment 14. Automated District Office Worker notification of a Vacate Adoption task assignment 15. Automated population of Vacate Adoption task assignment information 16. Automated Worker notification that a case outcome has been received from the family and juvenile courts
Case Management	Service/Case Plan	UC097 - Freeing of Child and State Acknowledgement	1. Review Freeing and Acknowledgement task information 2. Review Parental Information 3. Identify all parents who have potential legal claim to the child and their legal status 4. Determine parent whereabouts (or if deceased) 5. Determine if parental rights have been terminated 6. Contact parent with parental rights 7. Review Custody and Control information 8. Request approval 9. Review the Freeing and Acknowledgement package 10. Identify missing Freeing and Acknowledgement package information 11. Request death certificate for parent that died outside California 12. Request orders giving the agency the right to custody and control of the child	13. Automated notification of Freeing and Acknowledgement task assignment 14. Automated population of Parental Information 15. Automated population of Custody and Control information 16. Automated submission of the Freeing and Acknowledgement package to the CDSS Adoption Support Unit 17. Automated Assignment of Tasks to Caseload 18. Automated creation of the AD 4333 19. Automated Worker notification of available/assigned AD4333 20. Automated Worker notification when a Death Certificate is received

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Case Review/Evaluation	UC085 - Plan and Record Contacts	1. Create a contact 2. Schedule a meeting 3. Create or update documents 4. Conduct a virtual meeting 5. Document meeting activities, outcome and/or recommendations 6. Capture/Associate hard copy information to the meeting contact 7. Manage follow-up or recurring meeting(s) 8. Include additional staff in contact 9. Include community partner in a contact 10. Create meeting notices for system external distribution 11. Attach documentation to a scheduled meeting 12. Create a virtual meeting	13. Automated notification(s) of a scheduled meeting
Case Management	Monitoring Service/Case Plan Services	UC025 - Maintain a Person	1. Create a person 2. Review person information 3. Manage function information for the person 4. Manage demographic information for the person 5. Manage health information for the person 6. Manage relationship information for the person 7. Manage education information for the person 8. Manage tribal affiliation and Indian ancestry information for the person 9. Manage legal status information for the person 10. Manage criminal history information for the person	11. Automated population of person information 12. Automated verification/validation of person address information

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Monitoring Service/Case Plan Services	UC118 - Process Missing Child	1. Review child information 2. Manage child information 3. Review Contacts associated with the child's case 4. Schedule contact with child's caregiver 5. Notify law enforcement to file a missing person report and/or obtain a copy of the report 6. Attempt to locate the child (contact known friends, relatives or associations) 7. Request a protective custody warrant from the court 8. Provide appropriate notification of court outcome(s) associated with missing child case 9. Manage Benefit and Placement decisions 10. Terminated missing child's placement (when appropriate) 11. Prepare and calendar a request to terminate dependency and recall the protective custody warrant (for age of majority)	12. Automated Worker notification of missing child 13. Automated assignment of missing child to Worker caseload 14. Automated Worker notification of missing child task assignment 15. Automated Worker notification of court outcome
Case Management	Monitoring Service/Case Plan Services	UC014 - Request for Services and Goods	1. Verify the delivery of services and/or goods 2. Modify request for services or goods 3. Review list of assigned child(ren), adult(s), family member(s), or caregiver(s) needing services or goods 4. Search for services and goods 5. Review service and good items within proximity of the desired recipient location. 6. Review Service Providers for each service or good that is within proximity of the desired recipient location 7. Add a New Service and/or Provider 8. Request services and goods 9. Execute a referral for services and goods 10. Request approval or authorization 11. Request a purchase order (when applicable)	12. Automated listing of service and good items within proximity of the desired recipient location 13. Automated listing of Service Providers for each service or good within proximity of the desired recipient location 14. Automated verification of the availability of the number of units of services and goods being requested 15. Automated adjustment of the number of units requested to the number available 16. Automated reservation (place on hold) of the units requested

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Monitoring Service/Case Plan Services	UC015 - Referral for Services and Goods	1. Review completed requests for Services and Goods for assigned clients 2. Initiate Services and/or Goods referral process 3. Manage Services and/or Goods referral information 4. Provide information and instructions to the recipient on how to attend and/or obtain the services 5. Notify Service Provider of referral for Services and/or Goods and provide attachments 6. Notify Service Provider of the start date of services 7. Notify recipient of the start date of services 8. Obtain a signed Release of Information from the service recipients 9. Manage contact information	10. Automated capture of the date the Services, Voucher or Goods are issued
Case Management	Monitoring Service/Case Plan Services	UC016 - Verify Delivery of Services and Goods	1. Review referral for Services and Goods information 2. Identify referrals for Services and Goods that have not been verified 3. Manage Services and Goods request information 4. Verify delivery of Services and Goods with Client recipient(s) 5. Verify delivery of Services and Goods with Service Provider(s) 6. Provide information and instructions to the recipient on how to attend or obtain the services	7. Automated listing of referrals for Services and Goods that have not been verified 8. Automated Financial Management/Resource Management notification of delivery of services and/or goods 9. Automated generation of notification for the recipient on how to attend or obtain Services or Goods 10. Automated adjustment(s) to the Available Units and Allocated Units in inventory
Case Management	Monitoring Service/Case Plan Services	UC017 - Service Provider Online Progress Report		

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Case Management	Monitoring Service/Case Plan Services	UC114 - Apply for Child's Income	1. Determine if child is eligible for benefits 2. Initiate application for benefits 3. Manage benefits information 4. Determine if child has Social Security Card or Number 5. Initiate application for a Social Security Card 6. Initiate a county Payee Request 7. Manage Payee Request information 8. Initiate request for the county to become the child's payee 9. Submit Payee Request to the Social Security Administration or Veterans Administration 10. Initiate Benefit Application 11. Consult with child/family on Payee or Benefit application denial 12. Initiate appeal for denied Payee or Benefit application	13. Automated Worker notification when child has active income 14. Automated population of benefits information
Resource Management	Facilities Support	UC049 - Recruitment of New Caregivers		
Resource Management	Facilities Support	UC051 - Process Caregiver Application	1. Review Caregiver Application 2. Manage Caregiver information 3. Review Caregiver background check 4. Notify Caregiver applicant of denied application and grievance rights 5. Request county optional approval 6. Initiate Adoption Home Study 7. Schedule a contact 8. Initiate/monitor a Corrective Action Plan 9. Initiate request for any authorized services and supports available to caregivers 10. Notify applicant of missing or incomplete application documentation	11. Automated assignment of caregiver application to Worker
Resource Management	Facilities Support	UC058 - Maintain Agency	1. Search for an Agency 2. Manage Agency information	

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Resource Management	Facilities Support	UC059 - Maintain Inventory	1. Search for Inventory 2. Manage Inventory information 3. Search for a Inventory contents 4. Manage Inventory contents information	
Resource Management	Facilities Support	UC061 - Maintain Attorneys	1. Search for an Attorney 2. Manage Attorney information	
Resource Management	Facilities Support	UC062 - Maintain State ICPC Administrator	1. Search for an ICPC Liaison 2. Manage ICPC Liaison information	
Resource Management	Facilities Support	UC063 - Maintain Tribal Directory	1. Search for Tribal Directory Information 2. Manage Tribal Directory information	
Resource Management	Facilities Support	UC064 - Maintain Password for Service Provider		
Resource Management	Facilities Support	UC065 - Service Provider Online Enrollment		
Resource Management	Facilities Support	UC066 - Home Study Provider Report Online		
Resource Management	Facilities Support	UC103 - Maintain Goods and Services	1. Search for a Good or Service 2. Manage Good or Service information	
Resource Management	Foster/Adoptive Homes Support	UC053 - Investigate Complaint Against Foster Home		
Resource Management	Foster/Adoptive Homes Support	UC054 - Initiate Progressive Discipline		

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Resource Management	Foster/Adoptive Homes Support	UC121 - Maintain Caregiver	1. Review caregiver information 2. Manage caregiver information 3. Schedule a contact 4. Manage compliance actions related to the home and household members 5. Request approval 6. Investigate complaint against a caregiver 7. Notify caregiver of results from investigation of complaint 8. Initiate/monitor a Corrective Action Plan 9. Initiate request for any authorized services and supports available to caregivers	10. Automated Worker notification that a caregiver re-evaluation or reassessment is due 11. Automated Worker notification of a violation or corrective action plan against a caregiver's home where their case child(ren) are currently placed
Resource Management	Resource Directory	UC056 - Maintain Service Provider	1. Search for a Service Provider 2. Manage Service Provider information 3. Search for a Service 4. Manage Service information	
Resource Management	Contract Support			
Court Processing	Court Documents	UC038 - Prepare Court Documentation	1. Review Case information 2. Manage Case information 3. Review Safety Risk Assessment (SRA) information 4. Manage Safety Risk Assessment (SRA) Information 5. Review case plan 6. Manage case plan 7. Review delivered services information 8. Manage delivered services information 9. Request approval 10. Process received JV220 and JV 220(A) forms	11. Automated Worker notification that court documentation is needed 12. Automated population of court reports 13. Automated generation of Findings and Orders listing based on the Hearing Type 14. Automated Worker notification that an Ex Parte hearing or action has been calendared

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Court Processing	Notifications	UC117 - Prepare Court Notice	1. Initiate a Court Notice 2. Identify participants entitled to notice of a hearing 3. Manage hearing participant information 4. Manage Return Receipt Certified Certificate 5. Provide Court with Court Notice and Proof of Service Information 6. Initiate due diligence search	7. Automated identification of the participants entitled to notice of a hearing and their contact information 8. Automated Worker notification that a court notice/notices need to be sent for a hearing 9. Automated population of a court notice 10. Automated population of an ICWA notice 11. Automated generation of a Return Receipt Certified Certificate 12. Automated generation of proof of service for all identified participants for a hearing 13. Automated Worker notification of a calendared 366.26 hearing
Court Processing	Tracking	UC037 - Request or Schedule Court Calendar Event	1. Initiate a request to schedule a Court Calendar Event 2. Manage Court Calendar Event information 3. Request Court Calendar Event	4. Automated verification that all Court Calendar event information has been entered 5. Automated Worker notification of hearing/trial date 6. Automated Client Court information update to Worker calendar 7. Automated Worker notification of court notices that need to be sent based on Hearing Type 8. Automated Worker notification that Court Documentation has been transferred to the court
Court Processing	Tracking	UC039 - Perform Due Diligence Search	1. Initiate a due diligence search 2. Review due diligence search information 3. Validate person located is the person desired from the search 4. Manage due diligence information 5. Manage person information 6. Capture electronic signature(s)	7. Automated recording of all sources included in the due diligence search, with the date contacted, date of response, and result of search 8. Automated Worker notification of completed due diligence search 9. Automated generation of Due Diligence documentation

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Court Processing	Tracking	UC040 - Process Court Event Outcome	1. Review Hearing Outcome Information 2. Request clarification or update from the Juvenile Court to resolve discrepancies in Minute Order 3. Review Court use of recommended Findings and Orders 4. Review appeal information	5. Automated Worker notifications of court events 6. Automated County Counsel notification of Appeal Notification
Court Processing	Indian Child Welfare Act			
Financial Management	Accounts Payable	UC078 - Process a Purchase	1. Review Purchase Request information 2. Request check from Finance (via payment instructions) when required for purchase 3. Request purchase order (when required for purchase) 4. Request a cash disbursement 5. Request Voucher/Inventory goods 6. Manage Voucher/Inventory information 7. Identify Service Provider to whom a contract will be issued 8. Manage contract information	9. Automated determination if purchase request should be on hold (based on available funds) 10. Automated determination of the date for the purchase request re-submission 11. Automated Worker notification that purchase request has been placed on hold 12. Automated encumbrance of funds and identification of the Funding Source 13. Automated generation of Purchase Order 14. Automated generation of Procurement Request 15. Automated requesting party notification when Purchase Order is complete (available for printing) 16. Automated Worker notification that Voucher/Inventory goods are available for pickup 17. Automated Worker notification that cash disbursement is available

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Financial Management	Accounts Payable	UC080 - Process Financial Instructions		1. Automated determination if a payment is required 2. Automated determination if a notice is required 3. Automated acquisition of eligibility payment data for the notice of action 4. Automated determination if other financial instructions are required 5. Automated acquisition of other financial instructions data 6. Automated generation of the financial instructions 7. Automated amendment to financial instructions in a previously processed claim 8. Automated distribution of notice and payment instructions to the State and County payment Systems
Financial Management	Accounts Receivable	UC077 - Process Invoice	1. Search for an Authorization Number 2. Manage Authorization Number 3. Review Invoice information 4. Manage Invoice information 5. Manage receipt information 6. Manage Service Provider Information 7. Verify Service Provider authority under contract to provide a specific Service or Goods 8. Verify delivery of Services or Goods 9. Notify Service Provider of corrections to/rejection of submitted invoice(s) 10. Request authorization for payment or rejection of payment	11. Automated population of Invoice information 12. Automated application of Claims Adjudication rules to managed Invoice information 13. Automated determination if there is a case or Referral in the system associated to the Invoice 14. Automated payment instruction issue to the County and/or State payment system

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Financial Management	Accounts Receivable	UC079 - Process Warrant or Voucher Replacement	1. Search for a Warrant/Voucher (based on an Authorization Number) 2. Review Warrant/Voucher information 3. Manage Warrant/Voucher information 4. Provide Replacement paperwork to the payee 5. Initiate referral to Fraud for Investigation 6. Request approval to Stop Payment on a Warrant/Voucher	7. Automated generation of Warrant/Voucher replacement paperwork 8. Automated determination if a Warrant/Voucher was cashed or redeemed 9. Automated Worker notification of denied approval to Stop Payment 10. Automated issue of instructions to the County/State payment system to stop payment 11. Automated provision of Warrant or Voucher Number and all pertinent information to the County Fraud Investigation department/unit
Financial Management	Claims	UC081 - Perform Reconciliation	1. Manage abatement information 2. Manage overpayment/underpayment results/information	3. Automated processing of data received from SAWS 4. Automated comparison of the warrant information to the payment instructions 5. Automated determination that an overpayment/underpayment has occurred 6. Automated generation/distribution of an overpayment notice and repayment options 7. Automated generation of an Exception Report indicating the payments that have discrepancies 8. Automated Worker notification of discrepancies in payment information 9. Automated caregiver/service provider notification when reported overpayment/underpayment was correct as per issued payment
Administration	Staff Management	UC067 - Access CWS WEB	1. Initiate internal user log-in 2. Initiate external user log-in to Self Service	3. Automated validation of user log-in information 4. Automated user notification of invalid log-in information

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Administration	Staff Management	UC068 - Perform Administration Management	1. Manage the Administrative Organization 2. Manage employee information 3. Manage User information 4. Manage role information 5. Manage system task information 6. Manage caseload information	
Administration	Staff Management	UC069 - Maintain Administration Organization	1. Search for Administrative Organization information 2. Manage Administrative Organization information	
Administration	Staff Management	UC070 - Maintain Employee	1. Search for Employee information 2. Manage Employee information	3. Automated capture (auditing) of the submitter and the date the changes were saved in the system
Administration	Staff Management	UC071 - Maintain Users	1. Search for User information 2. Manage User information	3. Automated capture (auditing) of the submitter and the date the changes were saved in the system
Administration	Staff Management	UC072 - Maintain Roles	1. Search for Role information 2. Manage Role information	3. Automated capture (auditing) of the submitter and the date the changes were saved in the system
Administration	Staff Management	UC073 - Maintain System Tasks	1. Search for Task information 2. Manage Task information	3. Automated capture (auditing) of the submitter and the date the changes were saved in the system
Administration	Staff Management	UC074 - Assign Tasks to Caseload	1. Review the Referral and/or case information 2. Review the Best Caseload Match 3. Request approval 4. Review referral, case, or task assignment 5. Manage referral, case, or task assignment	6. Automated assignment of a Referral(s), case(s), or task(s) to a Worker caseload 7. Automated Worker notification to assign a Referral(s), case(s), or task(s) to a caseload 8. Automated approver notification of pending approval request 9. Automated Worker notification of new Referral(s), case(s), or task(s) assignment(s) 10. Automated Supervisor notification when Referral, case, or task assignment is not viewed within a predetermined period of time 11. Automated request to suspense/storage for referral or case hardcopy files to be forwarded to the assigned worker, office, or unit

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Administration	Staff Management	UC075 - Internal User Maintains Password	1. Manage personal password information 2. Initiate password update when password is forgotten 3. Initiate password reset when locked out of the system	4. Automated user notification that it is time to change their password (during system log-in) 5. Automated validation that requesting party is owner of password being changed 6. Automated validation of provided password information 7. Automated update of correct password information 8. Automated Administrator notification to reset user password (user locked out of the system) 9. Automated user notification after password reset
Administration	Staff Management	UC076 - Perform Workflow Processing		1. Automated task execution within the system 2. Automated task generation for a User 3. Automated task assignment to a User 4. Automated User notification of task assignment 5. Automated generation of Worker reminder(s), alert(s) or notification(s)
Administration	Staff Management	UC099 - Maintain Caseload	1. Search for Caseload information 2. Manage Caseload information	3. Automated capture (auditing) of the submitter and the date the changes were saved in the system
Administration	Staff Management	UC100 - Provide Best Caseload Match	1. Search for caseload(s) 2. Review caseload information 3. Determine best caseload match 4. Manage caseload information	5. Automated generation of prioritized range of best caseload match(s) (identifies potential Workers and their caseloads)
Administration	Reporting			

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Administration	Administrative Support	UC119 - Create and Manage Self-Service Account	1. Create a self-service account for a person 2. Create a self-service account for an entity 3. Identify a person responsible for the entity (so the entity self-service account can be created like the person account) 4. Responsible entity person creates additional persons associated with the entity 5. User maintenance of password 6. User maintenance of personal profile 7. Responsible user maintenance of entity profile/associated persons	8. Automated system generation of self-service person (account holder) profile 9. Automated system assignment of role to self-service person 10. Automated system generation of password for self-service person 11. Automated system notification to person of newly created self-service account 12. Automated system notification of password expiration (periodic reset)
Administration	Administrative Support	UC120 - Self Service Access	1. User log-on to self-service 2. New user request/creation of account 3. Mandatory Reporter submission of online SCAR (Suspected Child Abuse Report) 4. User maintenance of self-service profiles and passwords	5. Automated system presentation of viewable content and options (including information/destination links) appropriate for the active self-service account (role-based) 6. Automated system association between a youth and a caregiver/service provider for the purpose of tracking the association 7. Automated system notification to the youth's Case/Referral worker of the creation of a youth to caregiver/service provider association 8. Automated system notification to the youth's caregiver of the creation of a youth to caregiver/service provider association 9. Automated system notification to the youth's caregiver of termination of the youth to caregiver/service provider association 10. Automated system notification to the caregiver/service provider when information updates have not been performed (or identified as complete) within a configurable time period 11. Automated system deactivation of the youth to caregiver/service provider association when updates are not performed within the defined time period

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Interfaces	Required Interfaces			
Interfaces	Optional Interfaces			
Quality Assurance	Quality Assurance	UC095 - Perform Review	1. Determine the case(s)/Referral(s) to be reviewed and timeframe for review 2. Determine the level/type of review 3. Generate the Review or Audit report in the system 4. Initiate Case Management Services Review 5. Initiate Case Management Adoption Review 6. Initiate Case Planning Review 7. Initiate Intake Management Review 8. Initiate Resource Management Licensing Review 9. Initiate Court Processing Review 10. Initiate Federal Reporting Review 11. Initiate Eligibility Review 12. Initiate Financial Management Review 13. Initiate Assessment Review 14. Initiate Title IV-E Audit 15. Initiate General Capabilities Review 16. Initiate Placement Review	17. Automated generation of the Review or Audit report (information/data provided is dependent on the review/audit being conducted, and is pre-defined for that review/audit)
Quality Assurance	Quality Assurance	UC096 - Perform Dashboard Activities		
Additional Functionality	Additional Functions	UC083 - Perform a Search	1. Initiate a search of data elements within the system and/or an external system with a defined interface 2. Provide search criteria 3. Review suggested external systems to include in the search/verification 4. Manage suggested external systems to include in the search/verification 5. Navigate away from (drill down or review an individual search result item) 6. Return to a search result set (after navigation) and receive indication of previously	22. Automated background search as data is being entered (Google-like keyword/topic matching) 23. Automated suggestion of external systems to include in the search/verification criteria 24. Automated execution of search request based on provided information and associated business rules 25. Automated Worker notification when search has completed or returned results 26. Automated provision of search results to user

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			reviewed item(s) 7. Initiate a search (during Intake) to determine previous CWS contact with the child and/or parents for allegations of child abuse or neglect 8. Initiate a search for an entity, resource, or collateral within the system 9. Initiate a search for a person within the system or an interfacing agency 10. External user initiated search to locate a Worker within the system 11. Initiate a search for and/or validate an address within the system 12. Initiate a search by a person's name, address or vehicle license number (DMV search) 13. Initiate a search for a CWS resource, goods, or services 14. Initiate a search for non-CWS sponsored resources 15. Initiate a search for a missing person 16. Initiate a search for a system form, report or document 17. Initiate a search of a catalog/registry within the system 18. Review search results 19. Sort/reorder search results 20. Manage search results [this can result in discard, update(s), drill-down search(s), validation] 21. Search SAWS/LRS system for possible matching person(s) receiving aid and/or services	27. Automated matching of search result data to existing system data (when appropriate or requested in the workflow) 28. Automated notification of matching or unmatched search data (when appropriate or requested in the workflow) 29. Automated exclusion or indication of previously excluded search results 30. Automated population of search results into form/page initiating the search 31. Automated management of search submitted to an external system(s) (submission tracking, receipt verification and results processing)

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Additional Functionality	Additional Functions	UC084 - Approve or Authorize Request	1. Worker request Supervisor/Manager approval 2. Worker manage approval request information 3. Supervisor/Manager review of individual approval request(s) 4. Supervisor/Manager indication of missing information 5. Supervisor/Manager escalation to higher level for approval 6. Supervisor/Manager execution of approval/denial	7. Automated Supervisor/Manager notification of a pending approval request 8. Automated determination of Supervisor/Manager unavailability and notification of appropriate secondary Supervisor/Manager of pending approval request 9. Automated tracking of pending approval request with status managed in the client's case record 10. Automated Worker notification of approval/denial
Additional Functionality	Additional Functions	UC088 - Conduct Administrative Review Fair Hearing	1. Assist complainant (at their request) in preparing and/or completing a complaint 2. Review assigned review hearing request 3. Provide DOJ with notice of complaint when complaint related to DOJ 4. Review/investigate the complaint 5. Attempt to resolve the complaint at the lowest level possible prior to escalating the matter to a review hearing by an Administrative Law Judge 6. Conclude/record a determination based on review of the complaint (deny or accept complaint) 7. Manage complaint information 8. Notify complainant of Denial of Hearing determination 9. Schedule a review hearing for accepted complaint 10. Provide complainant with Notice of Hearing and Procedures information and timeframes for review hearing 11. Record hearing decision and communicate to the appropriate authorities 12. Manage hearing information 13. Provide a supplemental report (SS 8583) to the DOJ if appropriate	15. Automated Worker assignment of received review hearing request

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			14. Notify the complainant of the review hearing outcome and all actions required to be taken in accordance to decision	
Additional Functionality	Additional Functions	UC089 - Process and Generate Forms and Letters	1. Request creation of a form or letter 2. Determine if the document will be created inside or outside a Referral/case 3. Review a Client's case/Referral 4. Identify person(s) to receive form(s) and letter(s) (may or may not be associated to the Referral/case...create recipient outside case when appropriate) 5. Determine appropriate forms and letters to be generated 6. Manage form or letter content 7. Manage recipient information 8. Identify attachments to be associated with form(s) or letter(s) 9. Redact documents/attachments as required 10. Capture electronic signature(s) 11. Request approval 12. Determine document delivery method 13. Review ROI form, if one is related to the client 14. Manage ROI form information 15. Manage ROI form processing	16. Automated population of content of requested form(s) or letter(s) 17. Automated listing of documents available for attachment to a form(s) or letter(s) 18. Automated suggestion of information to be redacted from a form(s) or letter(s) 19. Automated provision of address information and suggested delivery methods 20. Automated Worker notification of approved document 21. Automated tracking of document(s) expected to be returned to CWS, with Worker notification of due date 22. Automated notification to internal recipients who are to receive a generated form(s) or letter(s) 23. Automated transmission of form(s) or letter(s) to the family and juvenile courts 24. Automated printing/distribution of form(s) or letter(s) 25. Automated provision of all ROI forms for a client
Additional Functionality	Additional Functions	UC090 - Receive Documents	1. Receive a document 2. Initiate a search to locate the appropriate client to associate to the document 3. Associate document with all appropriate persons in either a Referral or case 4. Review for appropriate and necessary documentation for each received document associated to a client 5. Review content of each received document 6. Review all documents associated with a client, based on Worker defined criteria	8. Automated time-stamp capture for received document 9. Automated determination if Supervisor notification is required, based on Worker entered information about received document 10. Automated Worker notification that a new document has been associated to their client

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
			7. Execute task(s) associated with a received document	
Additional Functionality	Additional Functions	UC091 - Initiate Background Check	1. Complete necessary background check request forms 2. Request approval 3. Submit a referral for person to complete the LiveScan Process within a specified time period 4. Submit background check forms to DOJ 5. Review background check results 6. Manage person information 7. Determine if the person has lived in another state 8. Manage client information based on background check information 9. Verify if the person has criminal history with other identified state criminal registries (if appropriate and possible) 10. Submit request for information to each identified state registry 11. Manage contacts with child protective services and/or law enforcement for the States with no criminal registry 12. Notify applicant when background check initiates an approval denial 13. Provide forms and directions to a person seeking an exemption to identified conviction(s)	14. Automated notification of which agencies provided results, and from which agencies results are pending 15. Automated Worker notification of contact information for each state's registry 16. Automated provision of out-of-state background check form(s) 17. Automated provision of child protective services and/or law enforcement for the States with no criminal registry

Business Segment	Function	Use Case ID/ Name	Activity	Workflow
Additional Functionality	Additional Functions	UC122 - Generate Reports	1. Search for a desired report 2. Provide report parameters 3. Generate a report 4. View a report 5. Print a report 6. Distribute a report 7. Create an ad-hoc report 8. Generate or view a Geographical Information System (GIS) Report	9. Automated generation of scheduled report

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4 Baseline Analysis

4.1 Current Method

The current CWS/CMS system is a distributed client/server application with mainframes providing database and reporting services to state, county and vendor workstations. In the current architecture, the client utilizes a centralized DB2 database that resides on IBM mainframes hosted at the State Data Center. The majority of business logic, business rules, and presentation logic resides on the workstation which runs the Microsoft® Office suite. Users rely extensively on Microsoft® Word for capturing case notes and deploying forms used to capture information.

At the county level, application servers function as intermediaries between a group of workstations (associated with a county or site) and the host. These servers minimize the traffic and number of connections between the host and workstations. They also provide a staging area for software distribution to reduce bandwidth congestion, such as the distribution of software to workstations over local-area-network (LAN) resources.

The current system has a number of voids in delivered functionality and compliance with federal SACWIS requirements and business functional requirements. Section 3.2 Business Problem or Opportunity of this FSR contains a summary of these functional voids and documents the following characteristics of the current system:

- Inability to provide acceptable responses to problem/opportunity elements of the business practice.
- Limited ability to meet current and projected future needs
- Interface navigation complexity/constraints
- Data collection and management deficiencies
- External information exchange constraints/deficiencies
- Failure to meet the goals, objectives, and functional requirements of the business practice
- Low user satisfaction

4.2 Technical Environment

Technical Factors

- **Expected Operational Life of the Proposed System**

The expected operational life of the proposed solution is through 2029. A timeline to execute the proposed solution is detailed in Section 2.1.8 – Major Milestones and in the project schedule contained in Appendix E - CWS-NS Project Schedule.

- **Proposed Solution Interaction with Other Systems**

The current system has non-existent or extremely limited information exchange interfaces to other program, agency and organization data archives. The new technical environment will close these functional gaps through implementation of the Information Exchange Interfaces in Section 3.2.2.4. Access constraints that impact CWS workers and external families, service organizations and service providers will be addressed through a delivered "self-service" capability.

- **State-Level Information Processing Policies**

The proposed solution will comply with the State's Technology Strategic Plan, Executive Order S-03-10 and legislation AB 2408 (Section 11546.3.b.1.B, page 17) as well as federal SACWIS requirements. The proposed solution will achieve SACWIS compliance with a combination of capabilities in the core software services, as well as custom-developed software services focused on closing gaps in the core software services.

- **Financial Constraints**

Current state financial conditions require that the technical environment leverage computing infrastructure, software services and M&O costs to ensure timely system delivery and cost effective operations. The computing infrastructure described in Section 5 – Proposed Solution, provides the maximum possible flexibility, extensibility and maintainability through the SOA computing and service-based software models. These foundational elements allow the solution to be delivered in small units that can more easily align with fiscal fluctuations than traditional long-term, single-delivery system models.

- **Legal or Public Constraints**

There are currently no identified legal or public policy constraints that should impact the delivery of the proposed system. In like manner, there are currently no identified agency policies and procedures related to information management that should impact the delivery of the proposed system. The proposed system does, in fact, align with currently evolving standards and guidelines of both the State and federal partners for infrastructure and software delivery. All standards and guidelines are included in Appendix E: Legislative Reference included in the FSR as Appendix A: Report to the Legislature: Child Welfare Services Automation Study.

- **Agency Information Technology Policies and Procedures**

The system will comply with all agency information technology policies and procedures.

- **Anticipated Changes to the Equipment, Software or Operating Environment**

Anticipated changes to the equipment, software or operating environment are defined in Section 5 – Proposed Solution.

- **Availability of Personnel Resources**

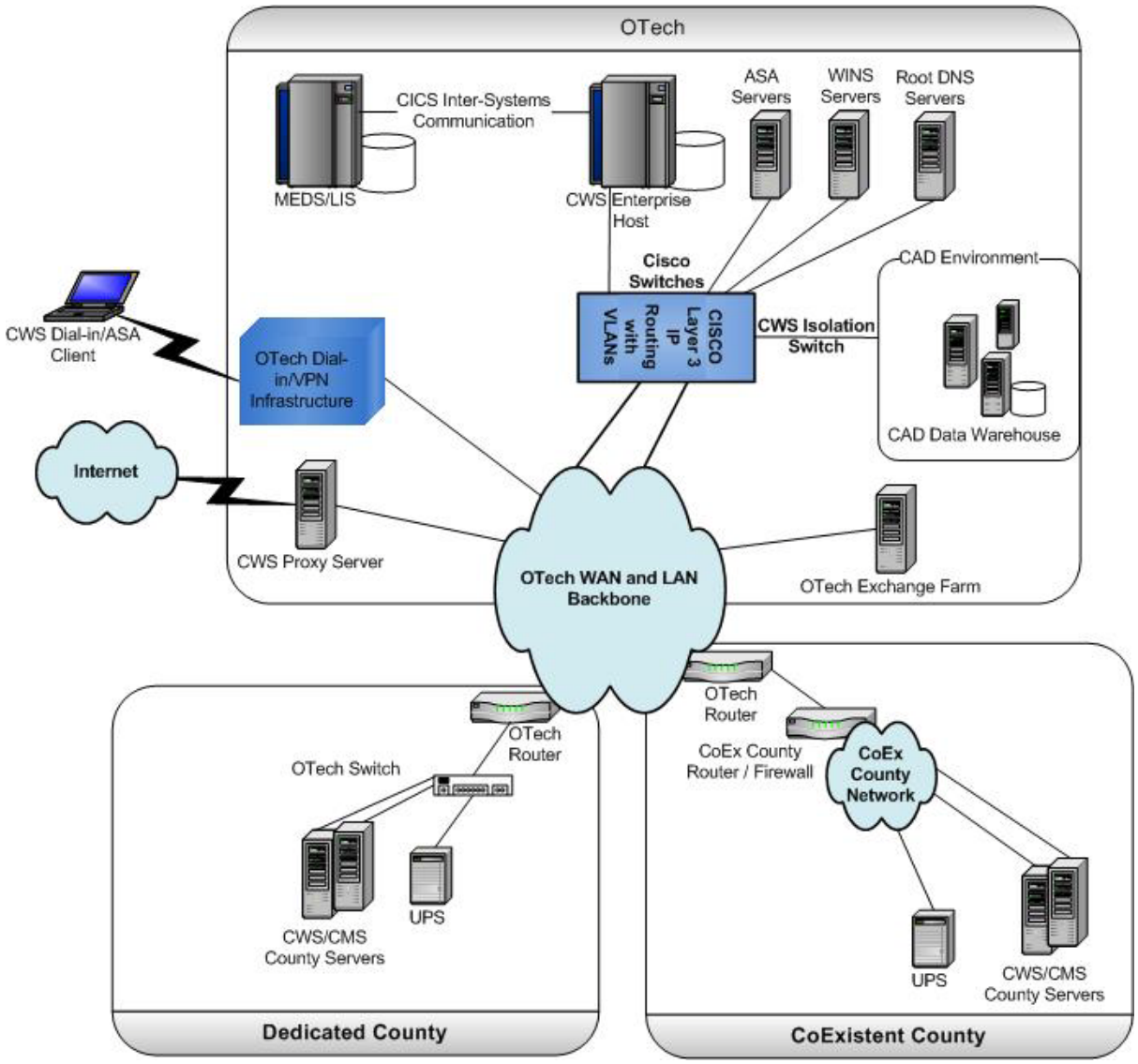
Because the proposed solution will utilize a computing infrastructure that is not widely deployed in the State, contract services will be utilized for initial system delivery and M&O activities until the State can develop personnel with the required skills.

4.2.1 **Existing Infrastructure**

The existing system is a multi-tiered client/server application comprised of several components. The major components are a workstation user interface, application servers, a mainframe back-end and database, and the OTech backbone. In addition to SAS analytical tools, CWS/CMS includes a separate CAD data warehouse environment for reporting. The core of CWS/CMS resides on two mainframes. The primary role of the mainframes is to provide database and transaction services.

The following figure illustrates the existing infrastructure from a logical topology.

Figure 2 - Current System Logical Topology



It is important to note that none of the existing infrastructure will be utilized in the proposed solution.

The following provides details of the existing infrastructure, application development and project management methodologies:

1. CWS/CMS client is hosted on more than 17,000 state and county workstations, and utilizes the transaction architecture under the Customer Information Control System (CICS) environment to support business processes.
2. The application servers provide intermediary functionality between distributed workstations and the mainframes. The application servers minimize network traffic which is up to OPT-E-MAN® bandwidth and total over 300 connections

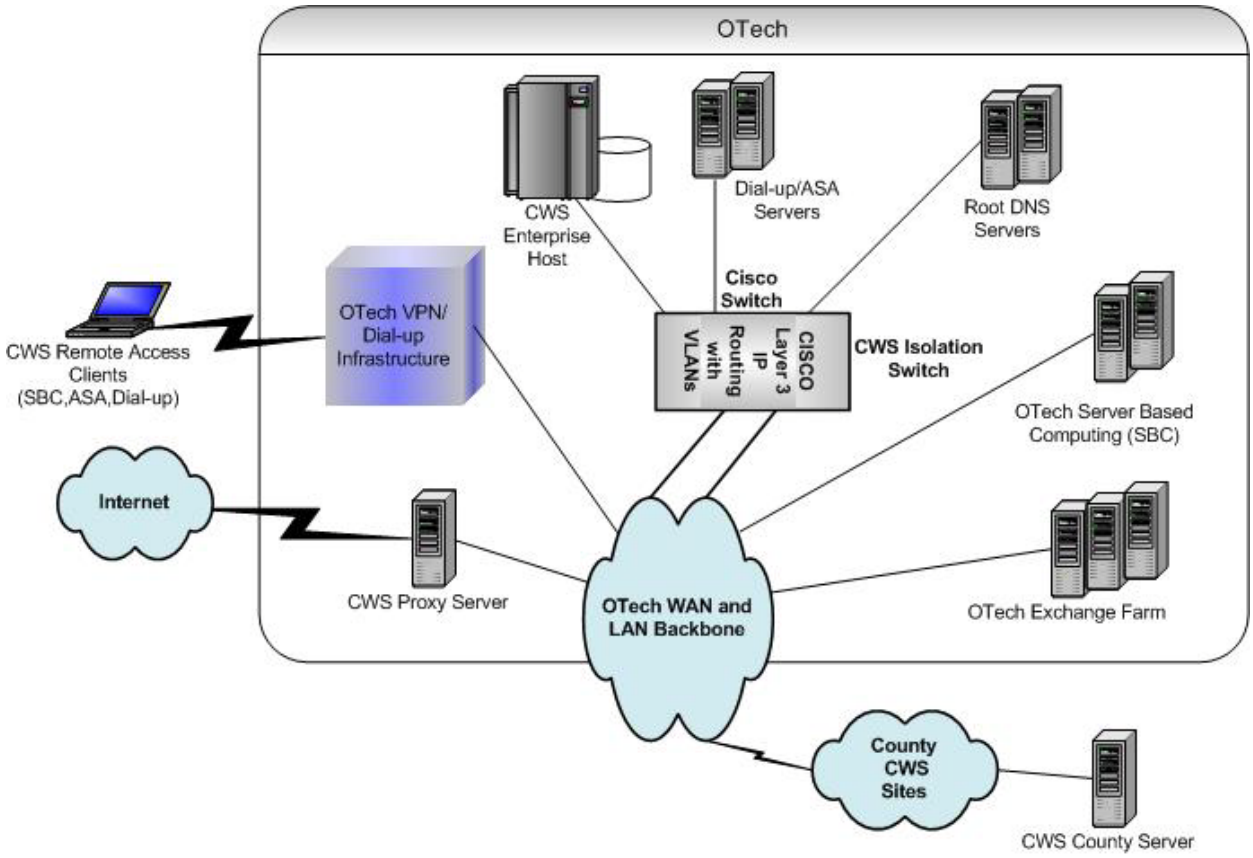
between the host and workstations. They also provide a staging area for software distribution to reduce bandwidth congestion. The 220 application servers are hosted locally in county server rooms and are designed to perform several functions including file sharing; print services, domain control, and antivirus updates; and acting as an application gateway.

3. The primary network protocols for the existing system infrastructure are; TCP/IP; POP3; UDP; Ethernet.
4. The application software is programmed using the Common Business Oriented Language (COBOL) and Visual Basic v6.
5. The personal productivity software includes Windows Office 2003 suite, Dragon NaturallySpeaking, JAWS, WinZip, SAP, Filenet, Documentum, Cofax, and Adobe.
6. The operating system software for the county, project, and vendor office workstations is Windows XP. The application servers are running Windows 2000 and Windows 2003.
7. All CWS/CMS data is stored in a series of database tables and accessed through CICS transactions generated from the CWS/CMS workstation application. Transactions are processed by the CICS transaction monitor. The workstation client interacts with the DB2 database running on two z/OS v8 and v9 mainframes at the State Data Center.
8. The application development methodology utilizes waterfall iterations.
9. Project management of CWS/CMS is the responsibility of a designated OSI Deputy Director, who staffs the project through a combination of state, vendor, and consultant resources. The Deputy Director is responsible for all project activities performed by vendor, consultant, and state staff. The Deputy Director manages the scope, cost, and schedule of all project activities utilizing industry and best practices.
10. It is also important to note that users currently have limited access to CWS/CMS while in the field using a VPN or dial-up based on the current fat-client technology the dial-up connection to the CWS/CMS application is extremely slow. Opening case results in an average of approximately 110,000 bytes of data transferred from the host to the client workstation. Over a best-case 50kbps dial-up connection, the data transfer time for this single transaction could be over four minutes the average user executes 14 CWS/CMS transactions per day (six-million transactions per month divided by approximately 22,059 active users per CWS/CMS System Performance Report for November 2011). Transactions are defined as any command sent by a client workstation or Application server which causes the mainframe database to respond. This includes updates, queries, and database saves. These transactions do not include batch-processing volume. A code update on a user's portable workstation over a dial-up connection sometimes takes several hours to complete. If timely remote/mobile system

access were available, CWS workers could use CWS/CMS while away from the normal office environment. This would create a virtual office by providing these CWS workers the same access to resources whether at home, or in the field.

The following figure illustrates the existing remote access infrastructure from a logical topology.

Figure 3 - Remote Access Logical Topology



Currently, remote access to the CWS/CMS is cumbersome or the ability to connect is not available. CWS workers have identified the need to retrieve and record information while in the field. A few examples of how remote technology could be applied are as follows:

- While in court, case disposition information could be entered.
- While waiting for court hearings or while waiting with a child at a doctor's appointment the CWS worker could enter and update Case or Referral information.
- While in the home performing assessments or follow-up appointments, the CWS worker could enter data during or shortly after the visit.

- While performing after-hours duties, the CWS worker could access Case/Referral data for better planning and assessment of the child and family.
- As information is obtained while out in the field during personal interviews, phone conversations, visits with other organizations, the CWS worker could enter information directly into the CWS/CMS.

The current system also allows a limited number of concurrent users to access by means of Server Based Computing (SBC).

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5 Proposed Solution

The proposed solution will support the current and future needs of child welfare services through its support of the following Key Business Objectives identified above in section 3.3:

- Resource Utilization
- System Access
- Information Exchange Interfaces
- Business Collaboration
- Outcome-driven planning, management and assessment
- SACWIS Compliance

The CWS-NS project is focused on providing a solution that will meet business objectives that will:

- Improve service delivery and outcomes
- Allow more timely system enhancements to support changes in CWS practice
- Achieve SACWIS compliance required to maintain Federal Financial Participation (FFP) funding and avoid federal non-compliance penalties
- Reduce ongoing maintenance and operations costs

To meet this goal, it is critical that the solution meet technical objectives that will**:**

- Replace the highly-distributed legacy CWS/CMS with a centralized, web-based SOA computing infrastructure.
- Replace the proprietary CWS/CMS software with Commercial-Off-The-Shelf (COTS) software that meets the majority of the business practice needs.
- Develop custom software services to close any operational gaps in the COTS software capabilities.

It is also critical that the solution meet the business objectives to:

- Achieve SACWIS Compliance to ensure retention of Federal Financial Participation (FFP) at current or improved participation levels
- Facilitate better resource utilization through elimination of redundant data entry, increased availability of information and documentation, and timely business practice execution
- Improve CWS Worker, Service Provider and Service Organization access to system information through portal and mobility technologies
- Improve user access, extraction accuracy and completeness of data acquired in external state/county and business partner repositories

- Improve communication/collaboration and information management between CWS workers, community organizations, service providers and multi-disciplinary teams.
- Improve the case management outcome/process planning, management and assessment/ reporting.

Collaborative analysis and evaluation of alternative approaches by OSI, CDSS and the stakeholder community, has determined that replacement of the CWS/CMS through a Buy/Build approach (COTS or Government Off-the-Shelf [GOTS] software) will achieve the best alignment with the program goals, policies, needs and expectations. This approach provides the maximum potential hardware and software flexibility to support current and future needs of child welfare services.

It was determined that the Buy/Build alternative:

1. Provides business value to the program and stakeholder community in the shortest time duration because of its “out-of-the-box” approach for initial implementation.
2. Provides the shortest duration for achievement of SACWIS compliance and business-value realization.
3. Would result in the most cost-effective Total-Cost-of-Ownership (TCO) of the evaluated alternatives.

The implementation and state acceptance of the core business capabilities delivered in DD&I - Phase 1 (15 month duration after contract award) will allow the decommissioning of CWS/CMS and over 100 external systems throughout the State. The initial release will be a one-time statewide deployment upon the completion of DD&I - Phase 1. The additional 12 months planned for DD&I - Phase 2 will provide business capabilities required to meet program and county functional gaps and/or process enhancements not available in the core business capabilities delivered in DD&I - Phase 1. The services created during this phase will be deployed statewide both when they are accepted by the state, and the counties are ready to implement.

Analysis of the critical cost drivers influencing the selection of the proposed solution focused on the computing infrastructure, the software delivery and the staffing requirements. The buy/build solution is planned to be hosted in a SOA-based Enterprise Computing Infrastructure, which provides the server-based computing hardware, server operating system software, enterprise database and single web (portal) interface.

The software delivery is planned to be executed through a combination of (1) pre-built, configurable COTS/GOTS software services and (2) custom-built software services that fill functional gaps in the COTS/GOTS offering. While the initial software implementation will be exclusively for the CWS-NS, future utilization is envisioned to leverage an Enterprise/Domain Software Services model. Within the SOA environment, individual software services will be available for shared enterprise-wide use by all domains (Enterprise Software Services) or for use only by a specific domain (Domain

Software Services). Defect correction, enhancements and maintenance of any single service or group of services will be executed at the "service" level, so only the individual service or group of services would be affected.

By hosting (exposing) the Enterprise Software Services and the Domain Software Services on an Enterprise Computing Infrastructure, there is the ability to provide a foundation offering **interoperability** across multiple health and human services programs. An evolving Software Services and Computing Infrastructure portfolio management vision is expected to facilitate the identification and reuse of software services and computing infrastructure components (e.g., ESB, Rules Engines, and Workflow Engines), which will minimize:

- **Duplication of computing infrastructure.**
- **Duplication of data** in multiple data repositories.
- **Duplication of user/consumer access** across multiple systems/silos.
- **Duplication of security frameworks** across multiple systems/silos (multiple logons, multiple passwords).
- **Multiple vendor contracts** to deliver systems/silos and Maintenance & Operations (M&O) support.
- **Duplication of vendor personnel** to deliver systems/silos and M&O support.
- **Duplication of state personnel** to oversee delivery of systems/silos and M&O support.
- **Duplication of common functionality** across multiple systems/silos (e.g., search, print formatting, form generation, form auto-population, calendaring, reporting).
- **Creation/maintenance of multiple "data exchange interfaces"** to share and/or synchronize data between silos.
- **Proliferation of proprietary platforms** across multiple systems/silos
- **Scalability issues**

One of the most significant benefits of the Enterprise Computing Infrastructure and Enterprise/Domain Software Service architecture is the interoperability inherent in this architecture. Interoperability allows the external partner community to communicate and exchange data as well as provide services to, accept services from other and effectively use those services in individual or collaborative operations. Interoperability reduces complexity and facilitates the management of heterogeneous environments, while enhancing choice and innovation in a collaborative model.

During the implementation of the CWS-NS, if it is determined that a computing infrastructure and/or software services are available, compatible and interoperable with the CWS-NS goals and objectives, a special project report(s) (SPR) will be submitted to reflect the reduction in costs from leveraging interoperable services.

The use of pre-built, configurable COTS/GOTS software services will result in lower state and vendor staff requirements to develop and deliver the solution, reduced staffing costs because of the shorter delivery duration, and reduced staffing requirements to support its on-going operations.

Because the buy/build solution delivery will be more focused than previous initiatives, and because it will impact the manner in which the stakeholder population will utilize its capabilities, an extensive Organizational Change Management (OCM) effort is incorporated into the planning and funding of the CWS-NS project. More than training and communications, this OCM effort will facilitate preparation and transition of the stakeholder population into the new solution and its underlying environment.

5.1 Solution Description

The proposed technical solution is defined as a Buy/Build model, which will deliver a fully-operational solution purchased from a vendor(s). Custom software services will be developed to fill gaps in the purchased solution capabilities that exist because of specific state or federal business practice, law, and/or policy. This alternative is not expected to reuse any of the existing CWS/CMS application elements. Web technologies and layered architecture will separate the user interface, the application logic, and the data. The CWS-NS will provide its users and partner applications access to business process functionality through a web browser and the Internet to a web portal designed to accommodate custom views and expose county specific workflow preferences.

The solution will provide a standards-based environment that accommodates all stakeholders, including different levels of government, service organizations and service providers. There are two foundational components that make up this new IT infrastructure:

- A Service-Oriented Architecture (SOA) will host and manage software services specific to the solution (Domain Services), as well as interoperable services (Enterprise Services) that are shared across the enterprise or consumed by information exchange partners. The assimilation of these services into components, with configurable business rules, allows them to be exposed through a global service registry for use by applications requiring similar services and their integration into multiple business processes.
- An Enterprise Identity Management (IDM) system that manages all types of users in a consistent way. It will allow for various security policies to be applied as set by various security and privacy policy organizations

Internal and external services will be accessible through independent layers of the application (e.g., User Interface independent from Services, Services independent from Business logic, Business logic independent from Data). This loose coupling of services (a core SOA requirement) ensures changes to one layer can be made independent from the other layers. **NOTE:** For details on the design and capabilities of the solution architecture, refer to Appendix H – CWS-NS Technical Architecture Vision.

Because the underlying computing infrastructure must be able to accommodate change with minimal impact to the functionality and performance of the system, the separation of capabilities into layers and the incorporation of reusability and extensibility concepts into the solution environment support cost and time efficiencies when scaling services across the infrastructure. Scalability is typically achieved through addition of limited hardware and/or specific software services instead of entire additional systems.

The CWS-NS is envisioned as having a minimum of four conceptual layers:

- Presentation Layer

  Responsible for presenting information to the user and interpreting user commands. This layer provides the User Interface (UI) and Presentation Logic components.

- Service Layer

  Defines the job the software does and directs domain objects to resolve problems, including work flow configurations. This layer executes tasks that are meaningful to the business or necessary for interaction with the service (application) layers of other systems.

- Business Layer

  The business layer is responsible for representing concepts of the business, providing information about the business process and/or communicating business rules. This layer implements the business logic using a Business Rules Engine and a Business Rules Management System (BRMS) to support the authoring, deployment and management of business rules.

- Data Layer

  The data layer encapsulates the data abstraction/access logic and data management technologies of the system, and provides a generic interface for database operations that allows services to access/update the data archives.

5.1.1 **Hardware**

The CWS-NS Project will establish the foundation for an enterprise-wide infrastructure starting in FY 2015/16 that leverages shared network technology to access the proposed solution residing at the State Data Center. This section primarily addresses infrastructure hardware from the county POP routers to the proposed production environment at the State Data Center, as well as hardware required for the test, training, development, and sandbox environments.

Prior to implementation in FY 2016/17, all counties will be evaluated for their readiness to implement the new solution. Each county must have appropriate hardware installed to allow users to obtain access to the proposed solution. All counties are responsible for acquiring their own network equipment and services as well as workplace computing hardware, such as workstations, mobile devices, printers, and other productivity equipment.

The proposed solution will utilize:

- Core Network Services:
  - OPT-E-MAN® routers will be distributed based on the gap analysis between the State Data Center and County Local Area Networks (LAN). They will function and be designated as POP routers at the county LANs. These application WAN routers will need to provide 100 MB of connectivity.
  - Switches required for Internet connection are available in the Tenant Managed Services - Premium (TMS-P) service offering and have been included in the core network services costs for this solution. These include a fast 1 GB connection.
  - Firewalls/Intrusion Protection equipment is included in the cost of the TMS-P rack services.
  - The proposed solution will include three Standard Server Cabinet (Racks) located in the TMS-P. Capacity and rates for these racks are based on the following four consumables:
    - Physical Space - 36 RU
    - Bandwidth - 20 GB
    - Power - 10 KW
    - Storage Connections - 18
- The TMS-P is designed to be a high density, highly virtualized data center with the goal of sharing infrastructure with other government agencies. This shared infrastructure allows for the design of new services within the State Data Center. The proposed solution will have access and may utilize some or all the following TMS-P services based on the COTS solution selected.
- TMS-P racking services will include:
  - The space, cooling and power
  - The purchase and installation of cabinets and cabling
  - WAN design
  - The purchase, installation, configuration, test, and operation of the WAN hardware
  - The purchase, installation, configuration, test, and operation of the LAN hardware
  - The purchase, installation, configuration, test, and operation of the connection to the Internet
- Ongoing maintenance and support of:
  - Space, cooling, power, cabinets and cabling

  - WAN hardware
  - LAN hardware
  - Service Desk and Operation Center
- Installation of a CGen network connection to the cabinet

Hardware specifications may change depending on the COTS solution selected, but is sized for projected capacity and multiple isolated environment configurations. The hardware specifications are based on market research. For planning purposes, however, the following are the minimum hardware specifications required for the proposed solution:

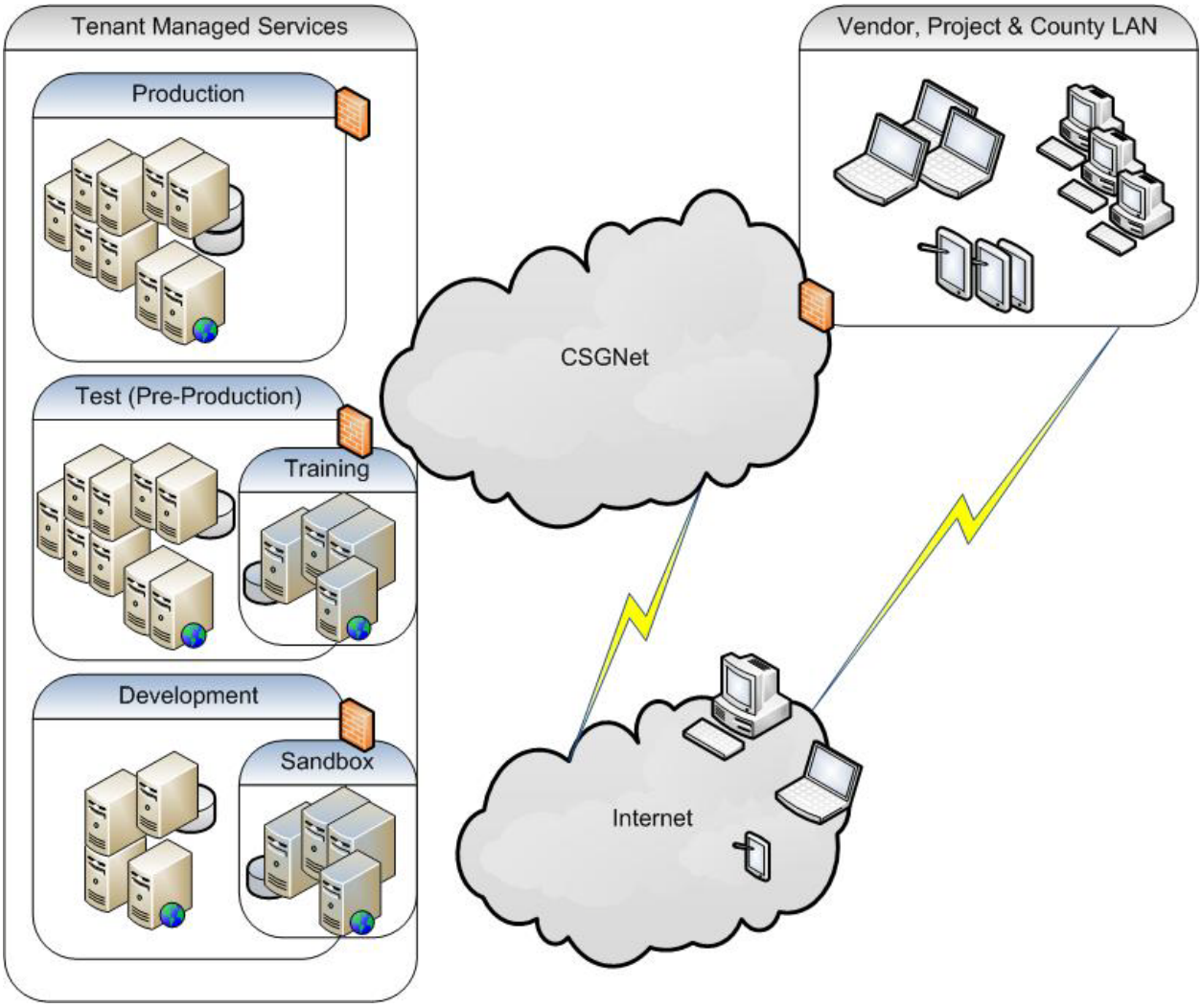
- Production Environment
  - A production database server with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space. The proposed solution recommends implementing SAN technology to provide these needs. The production database will use off-site storage services for disaster recovery and archiving.
  - A backup production database server with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space of SAN storage.
  - Five production application servers with at least sixteen 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1TB of disk space.
  - Two production web servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 500 GB of disk space.
- Test Environment
  - Two test database servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space. The proposed solution recommends implementing SAN technology to provide these needs. The test environment will use offsite storage for recovery services.
  - Five test application servers with at least sixteen 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1 TB of disk space.
  - Two test web servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 500 GB of disk space.
- Training Environment
  - A virtualized training database server with at least four 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space. The training environment will use on site storage for recovery services.

  - Two virtualized training application servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1TB of disk space.
  - A virtualized training web server with at least four 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 500 GB of disk space.
- Development Environment
  - A development database server with at least four 2.13 GHz, quad-core (4 Core) processors with 4 GB of memory and 2 TB of disk space. The proposed solution recommends implementing SAN technology to provide these needs. The development database may use vendor recommended software development tools to manage and store build versions. The development environment will use on site storage for recovery services.
  - Two development application servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1TB of disk space.
  - A development web server with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 500 GB of disk space.
- Sandbox Environment
  - A virtualized sandbox database server with at least four 2.13 GHz, quad-core (4 Core) processors with 4 GB of memory and 2 TB of disk space. The system will not require SAN technology or use off-site storage services.
  - Two virtualized training application servers to assist in development with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1TB of disk space.
  - A virtualized training web server with at least four 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 500 GB of disk space.

The above hardware components constitute the critical equipment required at the State Data Center and dedicated counties (routers only) for the proposed solution to function properly and be accessible to the end user. These hardware components do not represent the entire proposed solution network, which is outside the scope of this report. As mentioned earlier, the State still needs to conduct a study of the counties' technical infrastructure, including a gap analysis, to determine if additional hardware is required by the counties.

The following model illustrates the operational environment for the above detailed hardware.

Figure 4 - CWS-NS - Technical Environment



5.1.2 **Software**

The software requirements associated with the proposed system are the following: the Operating System (OS), COTS software, virtualization software, Enterprise Service Bus (ESB), Workflow Engine, Rules Engine, web server software, Identity Management (IDM), Database Management System (DBMS), Business Intelligence (BI) software, data warehouse, content/document management, application development software, portal, search engine, and other system tools.

5.1.3 **Technical platform**

The technical platform for this solution will deliver a fully-operational product resulting from the combination of purchased core capabilities software and custom-developed services, implemented in a SOA environment. It assumes the vendor product will run on UNIX enterprise architecture, with a database that is accessed through web servers,

with connectivity provided on the State CGen WAN, through workstations at State/county offices or via mobile devices.

5.1.4 Development Approach

The vendor responses to RFI #2 further validated the buy/build approach and helped establish the development approach and tasks to be used during the solution delivery. Of the six (valid) vendor responses, the average COTS/Custom Development distribution across the required software capabilities was as follows:

☒COTS = 74% ☐MOTS 0% ☒Custom Development = 19% ☐Others ☐None

The buy/build development approach will result in a number of cycles and different operational models during the life of the solution delivery. Detail of the required software capabilities are provided in section 3.4 – Business Functional Requirements. Detail of the segmentation, sequencing, development effort and completion/delivery of the computing infrastructure, software services and support elements are available in Appendix F - CWS-NS Project Schedule.

5.1.4.1 Purchased Product Configuration

The purchased product core capabilities will be implemented without any modification to the vendor's baseline code base. Implementation/customization will be limited to configuration capabilities delivered as part of the core product. Specification for the configuration will be accomplished through project analysis of the core product capabilities, alignment with the business practice and configuration of core capabilities to support the business practice. Business Process Re-engineering (BPR) and Organizational Change Management (OCM) activities will be incorporated into the core product configuration/delivery process.

5.1.4.2 Data Migration

Data migration will occur on two levels during delivery of the system. The first level will focus on migration of some defined sub-set of production CWS/CMS data to be utilized for core product configuration and to support development of the custom services. At the point of system deployment, the same migration process will be expanded to include the entire production CWS/CMS data archive including BLOB[2] data. Execution of this data migration will require development of scripts and code to implement the migration and execute necessary testing of the process.

The second level will focus on migration of data from identified decommissioned external systems in CDSS and counties. Not all decommissioned external systems contain data that must be integrated into the new system. Like the core CWS/CMS system data, the data will need to be migrated in two passes. The first pass will support configuration and/or custom service delivery, and the second pass will support system

[2] *Binary Large Object: a collection of binary data stored as a single intity in a database.*

deployment. Execution of this data migration will require development of scripts and code to implement the migration and execute necessary testing of the process.

5.1.4.3 Custom Service Development

Development of the custom services will be accomplished using an incremental (and iterative) lifecycle. This will require enough initial product specification to allow prototyping activities to initiate definition of the service, and iterative methods to support its refinement into the final delivered service. This effort is the one true software development activity in the project and will follow software best practices for incremental/iterative development.

5.1.4.4 Automated Testing

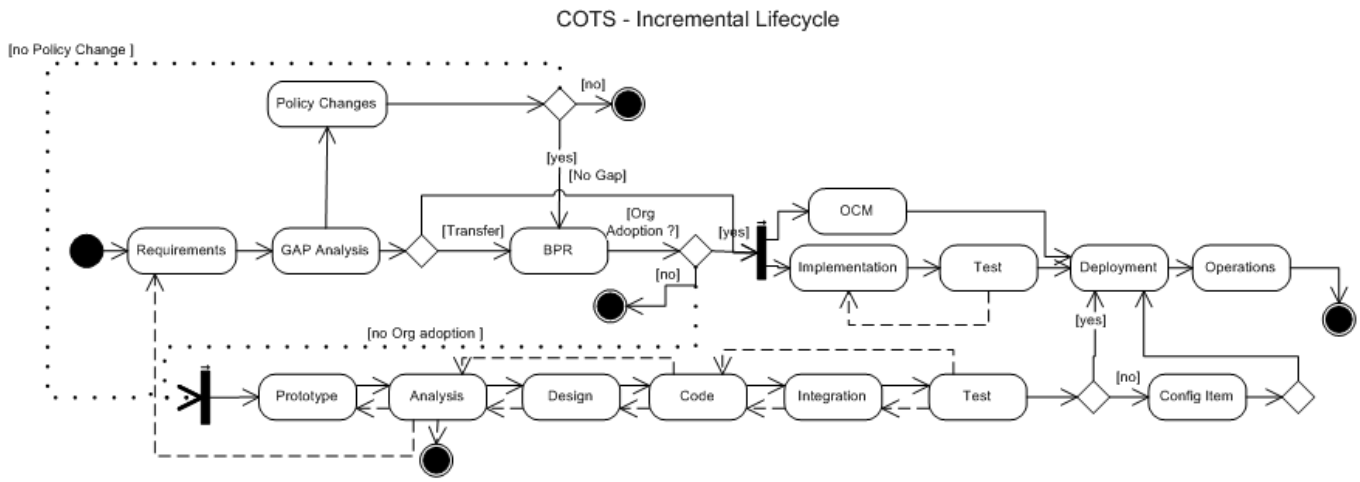
Automated testing requires development of software scripts and code that can continuously test new capabilities, as well as execute regression testing on previously developed services or service capabilities. Automated testing will also be a critical practice in determining load and capacity capabilities of the delivered system. While traditional input/result manual testing will be utilized by the stakeholder community for System Testing and User Acceptance Test (UAT), the automated testing will be used by the development/configuration staffs to expedite identification and correction of defects throughout the delivery lifecycle.

5.1.4.5 Development Lifecycle

The following model illustrates the development lifecycle to be utilized for the buy/build product delivery. There are two different development lifecycles embedded in this one hybrid model. The top lifecycle (showing a progression from requirements to gap analysis to BPR) will be used for the core product configuration. The lower lifecycle (showing a progression from prototype to analysis to design, etc.) is the incremental/iterative lifecycle to be used for custom service development. The project team has experience with the use of this methodology and would scale up resources according to roles and responsibilities required for successful implementation.

Both the COTS product configuration and the custom software service development are based on the incremental software development concept. However because of the differences between the activities for system configuration and custom software development, the hybrid model was provided to identify those activities that (especially gap analysis and BPR) are unique to COTS configuration.

Figure 5 - Buy/Build Lifecycle Model



The development approach begins with the business goals, needs and objectives (identified in the model as requirements). Through gap analysis, these business requirements are analyzed against the capabilities of the purchased product.

All identified gaps are mapped against existing policies to determine if there is a need or possibility to pursue changes in these policies to remove the gaps. At the conclusion of this analysis, there are three logical next steps:

- No changes are possible and the gaps must be filled. Develop a custom service to fill the gaps. Determine if the new service will result in any change to the business process/practice, and execute OCM if change to the business process/practice results.
- Changes can be made to mitigate some or all of the gaps. Execute BPR to determine impacts and execute changes to the existing practice. Utilize OCM to communicate/facilitate the change to the stakeholder community.
- No changes are possible and the gaps do not need to be filled. Communicate removal of the requirement from the system capabilities.

When a gap is identified that is not directly tied to a policy, the next step in the lifecycle will be to move to BPR. BPR analysis can determine if the current business process can be executed without support from the purchased product, or if a change can be made in the current business process to remove the gap. When doing BPR, it is important to remember that any tool may be an enabler of business processes. The business processes are what you must control.

All BPR outputs must be verified for organizational adoption. There are three logical outcomes from the combination of BPR and the verification for organizational adoption:

- BPR and organizational adoption is not possible and the gap must be filled; therefore, develop a service to fill the gap. Determine if the new service will

result in any change to the business process/practice, and execute OCM if change to the business process/practice results.

- BPR and organizational adoption are possible. Execute BPR to determine impacts and execute changes to the existing practice. Utilize OCM to communicate/facilitate the change to the stakeholder community.
- BPR and organizational adoption are not possible. Communicate removal of the requirement from the system capabilities.

The essential condition of this alternative is that no modifications can be made to the purchased product, in order to enable future vendor upgrades to these elements. All issues and gaps must be resolved through either development of a custom-built service (extension to the product) or via BPR.

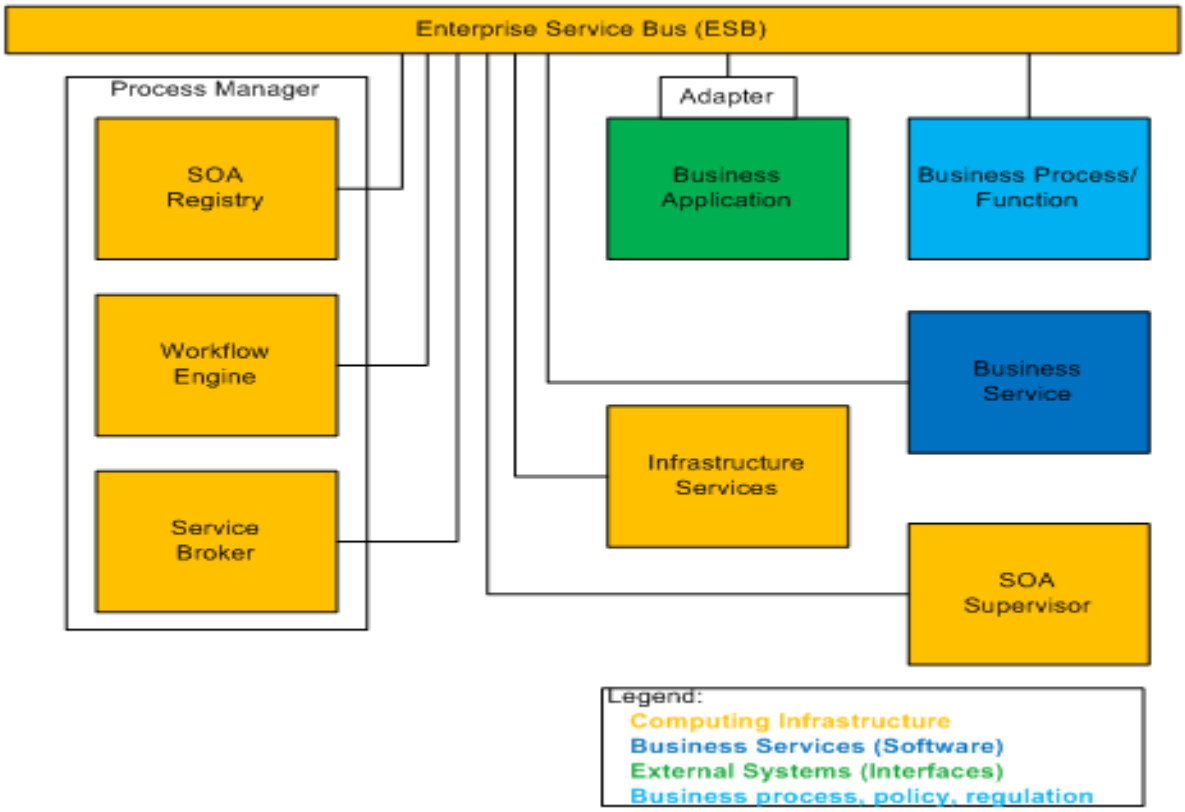
In parallel with the implementation of the purchased product, organizational change management needs to be executed to:

- Communicate the capabilities that will be delivered in the purchased product.
- Communicate capabilities that do not currently exist that will be available through the development of custom services.
- Communicate how the capabilities of the purchased product will be used to support the business practice.
- Communicate when services will be available to fill gaps between functionality desired in the system and available in the purchased product.
- Communicate changes (temporary or permanent) that will need to be made in how the system is used to execute the practice.
- Communicate any approved changes to the practice.

In summary, this development lifecycle is the most flexible and allows a majority of business needs to be delivered within the purchased product; which greatly shortens delivery of business value. Delivery of a developed service can be prioritized and sequenced to best align with business goals, needs and objectives. Because the functionality of the purchased product will not contain any customization, vendor-initiated upgrades to provide new functionality and/or address defect correction can be implemented with minimal impact to the operation of the system.

Service-oriented architecture is a critical element in the successful implementation of this approach. The following diagram illustrates how the SOA will connect the purchased product (shown as a business application) with custom-developed services (shown as a business service). This will allow the purchased product to remain unaltered, without being impacted by or causing impact to custom-developed services. Connection to other agency systems (referenced above as information exchange interfaces) will be accomplished using adapters with the business application.

Figure 6 - SOA Support of the Development Lifecycle



5.1.5 Integration issues

There are no known technical issues with integration, based on our SOA approach. There are a number of business issues that will need to be resolved for integration. These are:

- The time to negotiate the agreements with each agency
- The cooperation from each agency in defining what information will be shared along with the business rules for that information

The primary systems which require information exchange interfaces are listed in Section 5.1.7 – Technical Interfaces. Technical issues that arise during delivery of these information exchange interfaces will be addressed by the vendor though the change management process, and will be resolved through vendor/project collaboration.

Custom service development could result in integration issues between the custom service and core product services. Because of the SOA environment, and the ability to control the design and delivery of the custom services, this integration risk is assumed to be very low.

In addition to the defined mandatory information exchange interfaces, there are other state and county systems where information exchange interfaces will be required (i.e., DOJ, DMV, County Payment Systems, Service Provider systems, health provider

systems, education systems, etc.). Integration of these systems into the solution will require technical study/analysis and will have the same business issues as identified above.

5.1.6 Procurement Approach

OSI plans to procure a COTS solution, hardware, other required software, and contract services from a Systems Integrator (SI) (i.e., prime vendor) to implement the CWS-NS solution. The SI is responsible for the initial purchase of all hardware and software needed for the CWS-NS solution and will transfer the hardware titles, hardware maintenance agreements, software licenses, and software maintenance agreements upon state acceptance of the solution. Contract services are needed from the systems integrator to install, configure and implement the COTS solution and the technical infrastructure, (i.e., DD&I - Phase 1) as well as design, develop and implement the required custom services to fill functional gaps in the COTS solution (i.e., DD&I - Phase 2). The SI will also design, develop and implement several interfaces between the CWS-NS and other federal, state and county systems during the two DD&I phases and will provide service and support during the M&O phase.

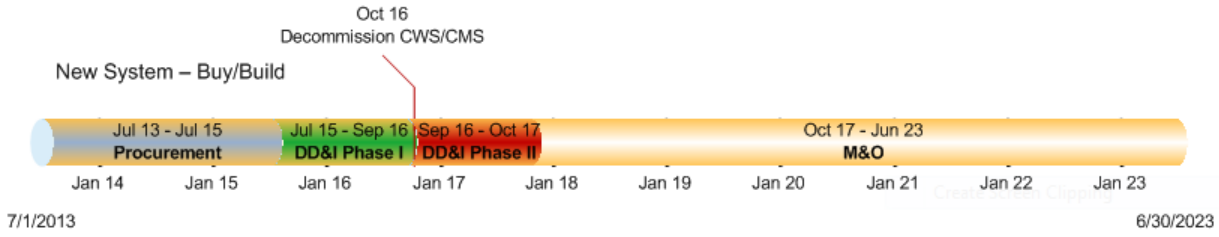
The estimated term of the systems integrator's contract is eight years, one year and three months for DD&I - Phase 1, one year for DD&I - Phase 2, and five years and nine months for the M&O Phase. The estimated cost of the systems integrator's contract is $162,246,089. The distribution by phase is as follows:

Table 5-1 - SI Costs by Phase

	Planning & Procurement	DD&I – Phase 1	DD&I – Phase 2	M&O	Total
Total Cost by Phase	$0	$55,343,367	$19,798,161	$33,598,055	**$108,739,583**

The following is the estimated timeline for the procurement phase (i.e., development of the procurement vehicle and the solicitation), DD&I - Phase 1, DD&I - Phase 2, and M&O Phase:

Figure 7– Buy/Build Timeline



In addition, OSI and CDSS plan to procure support services contracts for an intellectual property lawyer, county consultants, technical consultants, organizational change

management consultants, independent project oversight consultants, and independent verification & validation consultants using a variety of procurement vehicles. Interagency Agreements (IAA) with federal, state and county agencies are required to implement system interfaces between their systems and the CWS-NS during DD&I - Phase 1 and DD&I - Phase 2.

5.1.6.1 Proposed Prime Vendor Procurement Vehicle(s)

☐IFB ☐RFI ☐CMAS ☐MSA ☐IFB ☐RFO ☐RFP ☒OTHERS ☐NONE

OSI conducted a comprehensive assessment of the various competitive IT procurement vehicles set forth in the State Contracting Manual. The objective of the assessment was to determine which procurement vehicle would best meet the State's needs in acquiring the solution based on best value with the quickest procurement turnaround time.

5.1.6.1.1 Evaluated – Not Recommended

Several procurement vehicles were evaluated including the Request for Offer (RFO), Invitation for Bid (IFB), Request for Proposal (RFP), and the three Hybrid RFP procurement processes (i.e., Accelerated RFP, Solution Based Requirements, and Multiple Proposal Stages Approach). The following describes the procurement vehicles evaluated by OSI including the reason why they were rejected or accepted:

- **RFO** – is a vehicle used to procure contracts off DGS' Leveraged Procurement Agreements (LPAs). Purchasing off an LPA streamlines state purchases by removing repetitive, resource intensive, costly and time consuming bid processes from departments. An RFO is an excellent vehicle to use when departments require a contract within a short time period. However, the dollar threshold for the RFO is $500K for California Multiple Award Schedules (CMAS) and $1.5M for Master Service Agreements (MSA). Since the systems integrator contract is approximately $108,739,583, it significantly exceeds the threshold for CMAS and MSA. Departments can submit a Leveraged Procurement Agreement Exemption Request to obtain DGS approval to exceed the established dollar thresholds; however, OSI will have a very difficult time justifying the use of either procurement vehicles due to the complexity and high cost of the contract. Consequently, this procurement vehicle was rejected.
- **IFB** - is commonly used by departments when they clearly know the "detailed" specifications and requirements regarding the IT goods and services they want to purchase. A structured, multi-step procurement process is used to acquire the IT goods and services. Contract award is either based on the "lowest" bid or "best value" bid (i.e., value effective procurement) meeting all specifications and requirements from a responsible and responsive bidder after applying any preference requirements or discounts.

  This procurement vehicle was rejected because OSI does not clearly know all of the "detailed" specifications and requirements for the CWS-NS solution in order to use an IFB based on the "lowest" bid. For a value effective procurement, OSI

would prefer to use an RFP rather than an IFB due to the size and complexity of the project.

- **RFP** – is commonly used by departments to conduct a value effective procurement. The specifications and requirements for the IT goods and services are general in nature. The RFP typically reflects the existing business problems, short/long-term business objectives and detailed insight upon which vendors can offer a matching perspective in their proposals. A structured, multi-step procurement process is used to acquire the IT goods and services. Contract award is based on value effective factors that include cost. These factors are weighted, generally the administrative and technical requirements equal 50 percent and cost equals 50 percent.

  This procurement vehicle was rejected due to lengthy time required to complete the entire procurement cycle and the limited dialogue that occurs between the state and the vendors during the bid process. For projects the size of CWS-NS, three years or more are normally required to complete the procurement. A good portion of this time is expended developing RFP addenda and obtaining approvals from various control agencies before they are released to the vendors. The quality of the bid process also suffers due to misinterpretations of, or gaps in the information provided in the RFP as well as the limited dialogue with the vendors.

- **Hybrid RFP Procurement Process (Solution Based Requirements Approach)** – The Solution Based Requirements Approach is an alternative to the formal RFP procurement process where the departments provide only the business problems to be solved or goals to be achieved, and the bidders propose a business solution. This procurement vehicle is used by departments who do not know or have vague knowledge of the technical specifications and requirements needed to acquire the appropriate IT goods and services. Several confidential discussions are conducted throughout the solicitation process to encourage dialogue between the departments and bidders. This is critical to ensure that the department's business requirements and goals are clearly stipulated in the procurement document and the contractor is qualified and capable of meeting the requirements prior to entering into a contract.

  The Solution Based Requirements Approach, falls under Public Contract Code (PCC) §6611 and is conducted under the authority of DGS. Departments must gain prior approval from DGS before the solicitation is released under this PCC.

  This procurement approach was rejected because OSI has an excellent understanding of the technical specifications and requirements needed for an RFP as well as the technical solutions available in the marketplace. Also, OSI has already conducted several technical alternatives studies, including the recent *Child Welfare Services Automation Study*, received vendor responses from two requests for information (i.e., market surveys), attended several vendor demos, and evaluated vendor responses to the CWS/Web RFP, which was the prior procurement effort that was suspended in the 2011 State Budget.

- **Hybrid RFP Procurement Process (Multiple Proposal Stages Approach)** – The Multiple Proposal Stages Approach is used for only the most complex and risk sensitive IT procurements. The Multiple Proposal Stages Approach generally includes most of the elements of the aforementioned Solution Based Requirements Approach and the Accelerated RFP Approach described later in this section, as well as the following two stage process:
  - Stage 1 is the contractor pre-qualification that results in separate contracts for: 1) the proposal submittal stage and 2) the solution implementation stage.
  - Two or more contractors are pre-qualified in Stage 1.
  - Contract language for Stage 1 contracts is standard, and not negotiable. Contract language for Stage 2 contracts can be negotiable.
  - A contractor's Stage 1 and 2 contracts are separate documents, but part of an overall single procurement.
  - Contractors may be paid for both Stage 1 and Stage 2 deliverables

  The Multiple Proposal Stages Approach falls under Public Contract Code (PCC) §6611 and is conducted under the authority of DGS. Departments must gain prior approval from DGS before the solicitation is released under this PCC.

  Similar to the Solution Requirements Approach, this procurement approach was rejected because OSI has an excellent understanding of the technical specifications and requirements as well as the technical solutions available in the marketplace. Also, OSI has already conducted several technical alternatives studies, including the recent Child Welfare Services Automation Study, received vendor responses from two requests for information (i.e., market surveys), attended several vendor demos, and evaluated vendor responses to the CWS/Web RFP, which was the prior procurement effort that was suspended in the 2011 State Budget.

  Further, the Multiple Proposal Stages Approach costs more money and time to conduct. Additional costs are required to pay each pre-qualified vendor for the Stage 1 deliverables, including demonstrations of their solutions (i.e., proofs of concepts). The FI$Cal Project, for example, paid each pre-qualified vendor on its Stage 1 effort $1.4M. Extra time is also required to conduct this type of procurement approach due to the two stage process.

5.1.6.1.2 Evaluated - Recommended

- **Hybrid RFP Procurement Process (Accelerated RFP Approach)** – The Accelerated RFP Approach is a formal RFP procurement that includes a critically constrained timeframe in which to complete the procurement and may include some or all of the following elements:
  - Accelerated RFP development sessions where representatives from the acquiring Department, the DGS/Purchasing Division, the DGS/Office of Legal Services and the California Technology Agency (CTA) are committed to meet for consecutive days to write the RFP requirements and evaluation criteria.

- Smaller procurement teams
- Parallel reviews of the solicitation documents (the acquiring Department, the DGS and the CTA representatives).
- Request for Information (RFI) required prior to the development of the solicitation document to enable the bidder to determine merit of participating, and whether funding levels are appropriate. The RFI is also used by the department to determine what is available in the marketplace, and if their requirements can be met by the bidder community.
- Expanded use of Confidential Discussions during the solicitation process, prior to submission of Final Proposals.
- Phased implementation and progress payments
- Use of Alternative Protest Process

The Accelerated RFP Approach falls under Public Contract Code (PCC) §6611 and is conducted under the authority of DGS. Departments must gain prior approval from DGS before the solicitation is released under this section of the PCC.

OSI accepts the Accelerated RFP Approach as the procurement methodology of choice since it meets OSI's objective of acquiring the CWS-NS solution based on best value with the quickest procurement turnaround time. The RFP, by its very nature, is a value effective procurement resulting in a solution based on best value. In regard to the procurement turnaround time, close collaboration with DGS and CTA in the development and review/approval of the RFP as well as using the Alternative Protest Process will streamline and speedup the associated solicitation process.

This approach also allows OSI and the vendors to engage in constant dialogue throughout the solicitation process to mitigate future risks and issues while allowing the broadest level of competition and fairness. Early and continuous communication between the State and vendors is an emerging procurement best practice, especially for large, complex projects. It allows the vendors to have a better understanding of the state's goals, needs and expectations, and at the same time allows the State to have a better understanding of the vendors' concerns, issues and risks as well as the potential gaps and required revisions to the RFP.

To use the Accelerated RFP approach, OSI must submit a written request to DGS for approval. The request will include the RFP's release under PCC 6611 and modifications to the State Model Contract language to conform to the Code of Federal Regulations. The elements of the Accelerated RFP Approach OSI plans to employ are as follows:

- Accelerated RFP development sessions between OSI, CDSS, DGS/PD, DGS/OLS, and the California Technology Agency (CTA).
- The use of smaller procurement sub-teams with specific domain expertise in the business program, project management, technical, and contract areas.

- Parallel reviews of the RFP with DGS and CTA representatives as well as county representatives and other key stakeholders.
- Initiate Request for Information (RFI) prior to the development of the solicitation document to enable vendors to determine merit of participating and whether funding levels are appropriate.
- Expanded use of confidential discussions to initiate communications with the vendors early and on a continuous basis. OSI will also use these discussions to negotiate RFP requirements, contract language, and other critical information contained in the RFP.
- Use of the Alternative Protest Process in accordance with PCC section 12125 et seq., to speed the resolution time of IT protests and to decrease the number of frivolous protests occurring in IT procurements.

OSI, in collaboration with representatives from DGS and CTA, will determine the number of external resources that are required to conduct the Accelerated RFP Approach and whether interagency agreements are needed prior to initiating the Accelerated RFP Approach.

OSI plans to conduct the entire solicitation (from the RFP's release until contract award) in one year. The following table shows the estimated Key Actions and Dates:

Table 5-2 - Key Actions and Dates

No.	Key Action	Date
1	Begin Developing the RFP	7/1/13
2	RFP Completed	4/30/14
3	RFP Approved by State and Federal Control Agencies	6/30/14
4	Release RFP to the Bidders	7/1/14
5	Receive Letters of Intent to Bid	7/11/14
6	Bidders' Conference	7/16/14
7	Last Day to Submit Questions for Q&A Set #1	7/21/14
8	Begin State Presentations of the RFP (Excluding the Contract) to the Bidders	7/28/14
9	Begin Confidential Discussions #1	8/4/14
10	Begin State Presentations of the RFP's Contract	8/18/14
11	Begin Confidential Discussions #2	8/25/14
12	Begin Preparing Addendum #1	9/1/14
13	Begin Confidential Discussions #3	10/13/14
14	Last Day to Protest Requirements	10/24/14
15	Receive Draft Proposals	10/31/14
16	Begin Draft Proposal Evaluations	11/3/14
17	Confidential Discussions #4	1/5/15
18	Begin Preparing Addendum #2	1/19/14

19	Confidential Discussions #5	2/9/15
20	Last Day to Submit Questions for Q&A Set #2	2/16/15
21	Receive Final Proposals	2/27/15
22	Begin Final Proposal Evaluations	3/2/15
23	Begin Demonstrations	4/10/15
No.	**Key Action**	**Date**
24	Public Cost Opening	4/24/15
25	Letter of Intent to Award	4/8/15
26	Last Day to Protest Award	5/15/15
26	Award Contract	6/30/15

5.1.6.2 Proposed Prime Vendor Contract Type

☒Fixed Price ☐Time and Materials ☐Percentage of Benefit ☐Other

OSI plans to use a fixed-price contract for the prime contractor. The contractor will receive payments throughout the design, development and implementation phase based on state acceptance of the contractor's deliverables. For the maintenance and operations phase, the contractor will receive monthly payments, in arrears, minus any state credits applied during the service period. State credits are based on the requirements stipulated in the service level agreement.

A risk assessment of the CWS-NS Project using the Interim Risk Criteria Guidelines was conducted to determine the level of risk protections required for this effort. Results of the assessment revealed an overall risk rating of high for the project. Consequently, OSI plans to use a nine percent withhold of the total value of the contract, include liquidated damages in the contract provisions with a maximum liability of 1.5 times the value of the contract including amendments, hold software in escrow, and add terms and conditions into the State's Model Language to protect the federal government and maintain consistency with the Code of Federal Regulations (CFR). OSI, however, is not planning to have the vendors secure a performance bond or letter of credit since ACF believes these two risk mitigation instruments limit competition. FFP approval for the project is contingent on following this ACF directive including the associated CFRs.

5.1.6.3 Market Research

OSI conducted two RFIs (i.e., market surveys) to determine whether Commercial Off-the-Shelf (COTS) systems were available in the marketplace that could meet the needs of CWS, while complying with SACWIS requirements. An RFI was released in September 2011 to survey the vendor community to identify existing systems which could support key CWS' business goals, needs, objectives, and capabilities. Eight responses were received. The responding vendors included: Accenture in partnership with CGI Technologies; Case Commons; Cúram Software Inc.; Deloitte Consulting L.P.; Dynamic Research Corporation (DRC); e-Systems; IBM Global Services; and Unisys Corporation. Several of the responses received from the vendors indicated that the COTS solution that they offered could support the proposed solution.

A second RFI was released in November 2011. The objective of this RFI was to identify the degree in which the vendors' solutions could meet state and county needs in the administration and provision of child welfare services and federal SACWIS requirements. A capabilities matrix was provided to all vendors that identified the business practice capabilities and SACWIS requirements that needed to be provided in their product offerings. Each vendor was asked to identify which of these capabilities were included in their existing solutions, any custom services that would have to be developed to completely fulfill the state and county needs, and what capabilities could not be met. Vendor responses from the second RFI substantiated viable solutions in the marketplace that could support the buy/build approach. Of the 1,120 total capabilities required for the CWS-NS, vendors stated that their solution could provide 70 to 84 percent of the capabilities straight out-of-the-box. The missing capabilities or gaps that require the development of custom services ranged from 13 to 30 percent. Except for one vendor, the no responses were very low, essentially ranging from one to two percent. For further details, refer to Appendix K, Validation of the Buy/Build Feasibility.

OSI plans to initiate another RFI prior to releasing the solicitation document to the vendors. This RFI will enable vendors to determine merit of participating in the RFP process and whether funding levels are appropriate. Results of this RFI will assist OSI in the development of the RFP requirements and adjusting the funding levels as necessary to promote fair and open competition.

5.1.6.4 Government Code Section 19130 (b) Justification

5.1.6.4.1 Systems Integrator

The use of a System Integrator (SI) is required to mitigate two critical project risks, which are:

- Lack of specific knowledge, skill, experience and certification necessary to implement the SOA architecture and COTS software
- Potential losses resulting from schedule delays, inadequate performance or solution defects

The CWS-NS utilizes an architecture and COTS software offerings that require specific knowledge, skill, experience and certification that do not exist within the State personnel. As a result, the timely and cost-effective acquisition of the knowledge, skill, experience and certification necessary to support this architecture and COTS software is best achieved through contracts with private sector companies. Because these private sector companies simultaneously and/or iteratively utilize this knowledge, skill, experience and certification with multiple customers on multiple projects, they are also able to employ/evolve product specific and industry best practices.

5.1.6.4.2 Technical Support Services

Technical support services are needed to ensure that the CWS-NS data exchange interfaces are implemented using best practices and industry standards. There are data exchange interfaces planned between the CWS-NS and 19 federal, state and county systems. These agencies use an assortment of systems ranging from legacy mainframe

systems to systems built on n-tiered or service oriented architectures using a variety of proprietary solutions.

These data exchange interfaces are required to support the CWS solution in complying with SACWIS requirements, Federal/State regulation/policy and enhanced support of the business practice. Delivery of these data exchange interfaces as part of the new CWS-NS solution will require extensive analysis, collaboration and negotiation with the agencies that own the systems that host the desired data. This effort will require technical services consultants that:

- Understand and have demonstrated experience in defining and facilitating interoperability between diverse systems and organizations.
- Can communicate the benefit(s) to the hosting agency of providing CWS access to the data.
- Can facilitate opening or developing the gateway (interface) to the data.
- Can facilitate the data availability model that best fits the CWS need (real-time, scheduled batch, on-demand).
- Can assist in the negotiation of interagency agreements and service level agreement guidelines and priorities that are in line with the data availability model.
- Have operational (technical) knowledge of a wide variety of platforms and computing infrastructures.
- Can assist in the negotiation of cost effective modifications (when required) to the hosting data source.

The State Personnel Board defines job classifications that are specific to business analysis, software specification/development and business practice support. There is no classification that focuses on the identification, analysis and/or development of data exchange interfaces and/or interoperability concepts. As a result, recruiting state employees who possess these unique, cross-functional set of technical, business and concept marketing skills is very difficult if not impossible.

Due to the complexity and fiscal impacts of the CWS-NS Project, it is critical to provide the level of support needed for the success of the project and therefore, it's in the best interests of the State to proceed with a personal services contract for technical services.

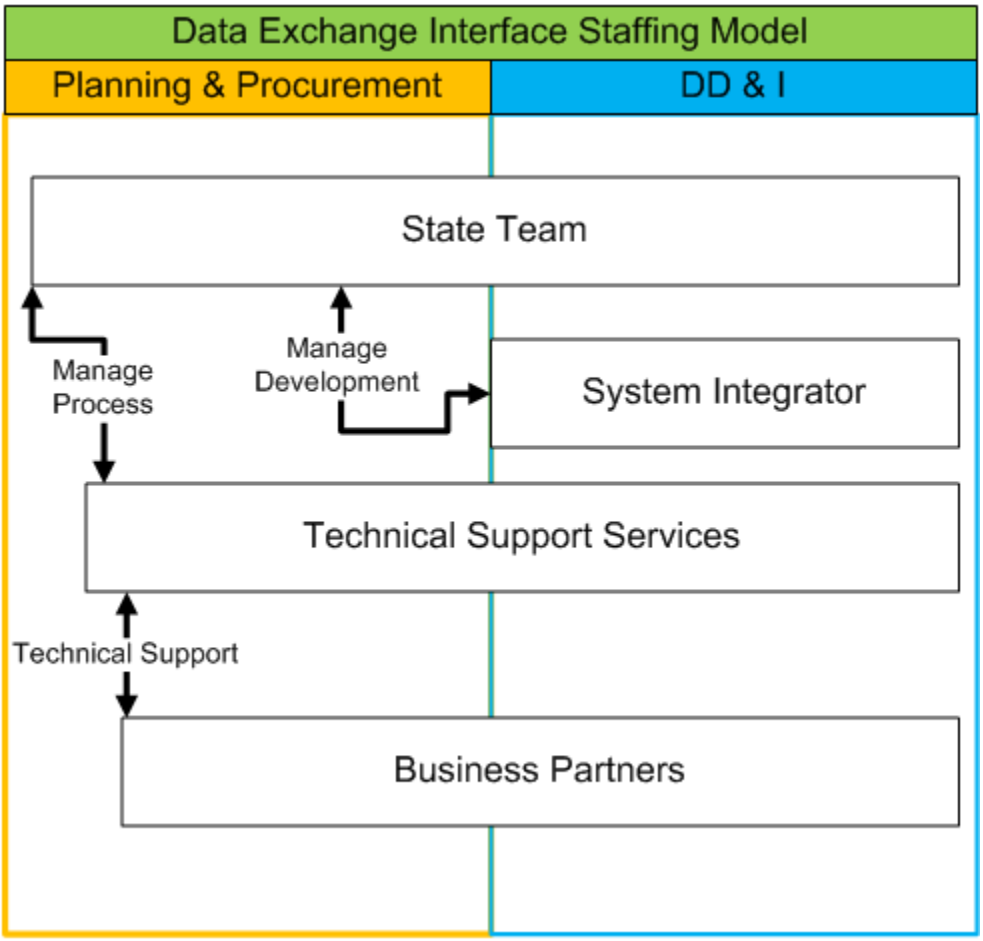
In the below Figure 8 – Technical Support Services Model, the operational relationship between the State team (OSI & CDSS), the System Integrator, the Business Partners and the Technical Support Services contractor is defined.

The State team will manage the process and activities executed by the Technical Support Services contractor, whereas the Technical Support Services contractor will conduct the data gathering and technical analysis needed to determine the technical specifications of the data exchange interfaces and interoperability concepts with the Business Partners. The Technical Support Services contractor will also assist during the technical development of the data exchange interfaces between the CWS-NS and

the Business Partners' systems by communicating problems, recommending solutions, and ensuring the interfaces are developed within scope, schedule and costs.

The State team will also manage the delivery of the data exchange interfaces and interoperability concepts by the System Integrator. Because of the wide range of skills required to successfully execute the data exchange interfaces and interoperability concepts, each of the participating parties (the State team [OSI & CDSS], the System Integrator, the Business Partners and the Technical Support Services contractor) will provide specialized skills and perspectives. With close collaboration, the assimilation of these specialized skills and perspectives will allow the State to successfully implement the data exchange interfaces. The State team will closely manage this collaborative effort throughout the DD&I Phases.

Figure 8 – Data Exchange Interface Staffing Model



5.1.6.4.2 Independent Technical Verification and Validation (IV&V) Consulting Services

Independent Verification and Validation services are needed to ensure that the CWS-NS Project is conducted using best practices and standards as per the SAM, SIMM; and California

Technology Agency IT policies, standards, instructions; and further delineated in the standards of the Institute of Electrical and Electronics Engineers (IEEE) and the PMBOK for IV&V activities.

IV&V activities provide an objective, independent, assessment of software products and processes throughout the project life cycle. This independent assessment demonstrates whether the software and system requirements are correct, complete, accurate, consistent, and testable. The processes determine whether the development products of a given activity conform to the requirements of that activity and whether the software satisfies its intended user and user needs. The determination includes assessment, analysis, evaluation, review, inspection, and testing of products and processes.

The scope of the services provided by the IV&V vendor are highly-complex, specialized and technical in nature that the necessary expert knowledge, experience, and ability are not available through the civil service system. Additionally, the IV&V vendor needs to be protected from any conflict of interest, in order to provide findings that are independent and unbiased.

Due to the complexity and fiscal impacts of the CWS-NS Project, it is critical to provide the level of support needed for the success of the project and therefore, it's in the best interests of the State to proceed with a personal services contract for IV&V services.

5.1.6.4.3 Legal Services

Independent counsel specializing in intellectual property for non-litigation legal services is necessary for information technology (IT) contract activities related to the CWS-NS Project. Given the obligations and liability of the participating vendors, the State is often challenged when negotiating software terms and conditions as well as the state's General Provisions (GPs) and Special Provisions (SPs) with the vendors. It is critical due to the size and complexity of the new solution that OSI obtains independent IT legal expertise with an intellectual property background and experience with complex statewide system contracts. The independent counsel will assist the State in developing the required contract language, providing expert consultation at the highest level, and mitigating risks during negotiations of the CWS-NS contract.

The scope of the legal services provided by the independent counsel is highly-complex, specialized and technical in nature, and the necessary expert knowledge, experience, and ability are not available through the state's civil service system.

Due to the complexity and fiscal impacts of the CWS-NS Project, it is critical to provide the level of support needed for the success of the project and therefore, it's in the best interests of the State to proceed with a personal services contract for legal services.

5.1.6.4.4 OSI/CDSS County Consultant Services

Subject Matter Expertise (SME) is required to provide consulting services to the CWS-NS. The necessary breadth of knowledge, experience and ability required to perform these services are not available through the state civil service system. The county consultant is a subject matter expert who will provide in-depth understanding of the current child welfare services program, specifically county business practices and needs. The county consultant also acts as a liaison to improve project communications

between the State and the counties and represent the counties in identifying and defining county business needs during all phases of the project.

The county consultant will serve as advocate for the county perspective and provide program expertise during the procurement phase. The county consultant, as part of the multi-disciplinary project team, will coordinate the transition from the procurement phase to the design, development and implementation phase including the subsequent rollout of the CWS-NS. It is imperative that the CWS-NS Project team understands current child welfare services business practices from the county perspective to ensure the new solution meets all of the counties' business practices and needs.

Due to the project scale, complexity, and sensitivity of the CWS-NS, it is in the best interest of the State to obtain SME's knowledgeable and experienced in child welfare services from the counties.

5.1.6.4.5 Organizational Change Management (OCM) Consulting Services

An OCM vendor, certified in Prosci's ADKAR® Model and OCM methodology, is required to provide expert consultation to CDSS, OSI, county workers, and other key stakeholders on the use of this OCM methodology. OCM is a critical component of any successful IT project, especially large statewide projects, as it prepares organizations and individuals for the impending changes associated with the new solution. Effective OCM is accomplished by building awareness, desire, knowledge, and ability of individuals (primarily end-users of the new solution) and the organization as a whole prior to and during the change. By integrating OCM into every phase of the project, OSI is able to identify and monitor organizational and individual change management needs and address them before they become issues. Prosci's ADKAR® is a best practice approach for organization change management. It is an effective, structured approach for both organization and individual change management and it also provides monitoring and assessment tools to constantly measure the performance and successfully promote change. OSI's EBT and CMIPS II projects have employed this approach as well as other projects such as FI$Cal. The CWS-NS Project will leverage the OCM strategies from these other projects and adapt them to conform with Child Welfare Services.

The OCM vendor will work closely with the CWS-NS project team and other stakeholders to finalize the OCM strategy and plan. Once completed, the vendor will provide expert consultation during the implementation of Prosci's OCM methodology across the state. During DD&I - Phase 1 and DD&I - Phase 2, the vendor will also collaborate with the systems integrator to ensure the OCM activities are closely aligned with the design, development, and rollout activities of the new solution.

The scope of the consulting services provided by the OCM vendor is highly-complex, specialized and technical in nature, and the necessary expert knowledge, experience, and abilities are not available through the state's civil service system.

Due to the complexity and fiscal impacts of the CWS–NS Project, it is critical to provide the level of support needed for the success of the project and therefore, it's in the best interests of the State to proceed with a personal services contract for OCM services.

5.1.6.5 Contracts Exempt from Government Code Section 19130 Contracts

5.1.6.5.1 Independent Project Oversight Consultant (IPOC) Services

IPOC services are needed to ensure the CWS-NS Project is conducted using best practices and standards as per the State Administrative Manual (SAM) and Statewide Information Management Manual (SIMM). Specifically, oversight for the CWS-NS Project will follow the California Technology Agency's (CTA) IT policies, standards, instructions delineated in the Information Technology Project Oversight Framework (ITPOF) requirements and the standards of the Project Management Body of Knowledge (PMBOK).

CDSS plans to retain IPOC services from CTA through an interagency agreement. CTA will assign to the CWS-NS Project one full-time state staff at the Data Processing Manager III classification to provide these services. The interagency agreement will include a statement of work, level of responsibilities and other contracting details commensurate to the size and complexity of the project.

5.1.6.6 Small Business and Certified Disabled Veteran Business Enterprise

The CWS-NS Project will make a concerted effort to enlist Small Businesses (SB) and Disabled Veteran Business Enterprise (DVBE) by including language in all of its procurements to encourage SB participation and to achieve DVBE goals. In addition, the prime vendor procurement will be advertised on the eProcurement System to potentially allow a broader participation by SB and DVBE vendors.

5.1.6.6.1 Contract(s) Term(s)

Table 5.2 displays the contract terms of the various CWS-NS contracts.

Table 5-3- CWS-NS Contract Table

Type of Contract	Planned/ Date of Award	Start and End Date of Contract	Total Value of Contract	Is it performance based?	Competitively Awarded
System Integrator	June 2015	July 2015 – June 2023	$108,739,583	Y	Y
Independent Project Oversight Consultant	June 2013	July 2013 – September 2017	$543,330	N	N
Technical IV&V	June 2013	July 2013 – September 2017	$2,371,824	N	Y
Technical Support Services	June 2013	July 2013 – September 2017	$3,041,280	N	Y

Type of Contract	Planned/ Date of Award	Start and End Date of Contract	Total Value of Contract	Is it performance based?	Competitively Awarded
Legal Support Services	December 2013	January 2014 – December 2015	$250,000	N	N
CDSS OCM Consulting Services	June 2013	July 2013 – September 2017	$3,432,000	N	Y
OSI/CDSS County Consultant (IA)	June 2013	July 2013 – June 2023	$10,836,000	N	N

Note: Alternative financing options are not being used for the contracts identified in the table above.

5.1.7 Technical Interfaces

There are information exchange interfaces that currently do not exist in CWS/CMS that will aid users and significantly enhance investigation, case management, and service delivery efficiency. Improved processes involve automated access to medical eligibility information and the ability to perform location searches for missing individuals. These information exchange interfaces will meet mandatory federal SACWIS requirements: Title IV-A – Statewide Automated Welfare Systems (SAWS), Title XIX – California Department of Health Care Services (DHCS) – MEDS, and Title IV-D –California Child Support Automation System (CCSAS).

- **SAWS Title IV-A**

  An information exchange interface with SAWS will provide access to information about multiple programs and client identification when CWS has a mutual client with the California Work Opportunity and Responsibility to Kids (CalWORKS) program. The SAWS interface will enhance investigation, improve case-management services, and facilitate better service delivery by preventing duplication.

- **California DHCS MEDS - Title XIX**

  An information exchange interface with MEDS will provide access to Medi-Cal eligibility verification, along with family and individual demographic information (e.g., address, telephone). This information exchange interface will provide access to client information to determine eligibility for children in foster care, supporting the automated exchange of common case information, and capturing required data for federal reporting.

- **CCSAS - Title IV-D**

  An information exchange interface with CCSAS will automate the collection of child-support information. This includes the mandatory reporting of child-support data for AFCARS, as well as verification across data systems on shared client information. This information will facilitate the collection of child support on the behalf of dependent children and the automated exchange of child-support referrals. This interface will allow the CWS to access information to locate missing persons.

- **Social Security Administration**

  An information exchange interface with the Social Security Administration will automate the ability to submit requests for Social Security benefits on behalf of a child. AFCARS data could be exchanged, as a result. Demographic information could also be obtained on clients who will assist in service delivery.

- **State Controller's Office and the County Payment Systems**

  Information exchange interfaces with the California State Controller's Office and individual county payment systems will automate CWS financial transactions. The State and counties are required to track and manage financial information including payment of CWS service-connected expenses, administration and issuance of assistance payments, and children's income. Accurate payments help ensure children's financial needs are met.

There are many other missing information exchange interfaces critical to CWS operations. The information exchange interfaces will enhance investigation, case management, and due diligence (location) search functionality. In addition, these additional information exchange interfaces will help fulfill the needs of child welfare practice.

- Family and Juvenile Courts
- Department of Alcohol and Drug Programs
- Department of Corrections and Rehabilitation
- Department of Public Health
- Department of Health Care Services
- Department of Justice
- Department of Motor Vehicles
- Employment Development Department

All interfaces with the CWS-NS system are expected to be implemented using Web Services Adaptor architecture and The National Information Exchange Model (NIEM). The Web service adapter will provide the following capabilities:

- Messages will be housed in a secure repository with retrieval and analysis capabilities.
- Information exchange interfaces will not require human intervention.
- Each adaptor will handle all routing, security, error handling and translations for the information exchange service in a manner that conforms to the CWS-NS Project, state and federal security requirements.
- Adaptors will use a Single sign-on (SSO) capability.
- Each adaptor will have the capability for administrators to access the messages in the repository.
- Each adaptor will have the capability for administrators to configure, or change configurations of the CWS-NS Project interfaces.
- Automated notification and alert functionality will be provided for triggering events based on rules.

NIEM is an XML-based information exchange framework developed by the US federal government to facilitate the creation of automated enterprise-wide information exchanges which can be uniformly developed, centrally maintained, quickly identified and discovered, and efficiently reused. The State of California and the ACF envision NIEM as the de-facto exchange standard for the CWS-NS and its partners. Using NIEM as the standard for exchanging information between the CWS-NS Project and other agencies will facilitate the long term goal of inter-operability and cost savings envisioned by the CWS-NS Project and its sponsors.

NOTE: For additional details on the design and capabilities of the solution information exchange interfaces, refer to Appendix H – CWS-NS Technical Architecture Vision.

5.1.8 Accessibility

The proposed system will meet all accessibility requirements in Government Code Section 11135 and Section 508. Agency will be able to use industry standards and best practices to measure these accessibility requirements.

5.1.9 Testing Plan

Industry standards and best practices for both formal and informal testing is planned. Unit, integration, system and user acceptance testing (UAT) will be utilized throughout the system delivery lifecycle along with Informal testing to be executed iteratively, in a “Sandbox” environment, during DD&I - Phase 1 and DD&I - Phase 2.

Automated testing will be utilized to continuously test new capabilities, as well as execute regression testing on previously developed services or service capabilities. Automated testing will also be a critical practice in determining load and capacity capabilities of the delivered system. While traditional input/result manual testing will be utilized by the stakeholder community for system testing and UAT, the automated

testing will be used by the development/configuration staffs to expedite identification and correction of defects throughout the delivery lifecycle.

5.1.9.1 Unit Test

Unit testing will be executed at the individual service or business capability level. The goal of unit testing is to ensure that the individual service or business capability executes as designed. Unit testing is executed by the developer or development team responsible for delivery of the individual service or business capability. Completion of unit testing certifies the individual service or business capability is ready for integration into the system.

In the buy/build model, all capabilities will be developed/delivered in small increments (services), which encapsulate functionality into a single unit. This encapsulation will allow unit testing to be executed using automated testing techniques (tools, test code, scripts). Automated testing allows test scenarios (inputs, outputs and error identification) to be applied continuously during development/delivery of the service. Automated testing also provides the benefit that numerous test scenarios can be executed in minutes instead of the hours that would be required for manual testing. This test cycle is executed/managed by the system vendor and supported by the project test staff.

5.1.9.2 Integration Testing

Integration testing is the process of ensuring that individual services that have successfully passed unit testing can collaborate to support a larger business process. In a SOA environment, integration of individual services is managed by the elements of the process manager (i.e., SOA Registry, Workflow Engine and Service Broker). Prior to delivery to the SOA environment, services that will need to collaborate to support a business process should be subjected to automated simulations of those collaborations. This simulation will likely be accomplished by wrapping the automation code from the unit testing with code that exercises the collaboration. This test cycle is executed/managed by the system vendor and supported by the project test staff.

5.1.9.3 Informal Sandbox Testing

During execution of the buy/build system delivery, stakeholders will be provided access to an environment where the completed services/configuration can be reviewed and evaluated. Release of system capabilities (including high-level user training) will be managed and communicated to the stakeholder community through scheduled (i.e., bi-weekly, monthly) virtual meetings. Stakeholders will then be allowed to execute “informal testing” of the released (potentially still in development) service/capability. A feedback process will also be available to identify potential design flaws and OCM opportunities.

5.1.9.4 System Testing

System testing is focused on ensuring that all developed/delivered system services operate as designed to deliver a complete solution to the stakeholder community. During system testing, designated testing staff will manually execute structured

scenarios designed to validate the operational correctness of all known threads of execution (sequences of inputs, processing and expected results/outputs) of the system, as defined by the business practice. Testing staff are expected to execute each documented test scenario (with one or more test cases, based on their designed sequence of functional events) and record achieved results. The test scenarios for this activity also will test out-of-bounds conditions (expected to fail or return a specific incorrect result). System testing must be completed prior to execution of the User Acceptance Test (UAT) cycle, and is the gatekeeper activity prior to statewide implementation. Completion of system testing requires a thorough review of all defects identified during the system test cycle, determination of open/closed defect reports and a decision whether the impact of not correcting a defect is critical enough to delay release of the product (100 percent defect correction is seldom realistic or cost/time effective). This test cycle is executed/managed by the system vendor and supported by the project test staff.

5.1.9.5 User Acceptance Testing

The UAT test cycle is executed/managed by the State and supported by the system vendor. The successful completion of the system development/delivery and system testing cycles results in a system that is certified ready for statewide implementation. UAT is the process by which State/County staff provides confirmation (acceptance) that the system meets mutually agreed-upon requirements. UAT is most effective when executed in the production environment, rather than in a development phase environment such as the test, training or sandbox.

Where the system testing is focused on ensuring that the system meets the user needs, goals and expectations as stated in the requirements specification, UAT is focused on ensuring that the production system functionally supports the practice (from a day-to-day perspective) and fulfills the CWS-NS system contract. UAT may be executed in two cycles, where the first (rigorous) cycle is executed in a production-like environment (i.e., mirror image of the production environment including network, interfaces, data, architecture, and software version), and a second (risk focused) cycle is executed in the actual production cycle. Execution of UAT in the production environment that is not associated with actual practice execution will probably require a refresh activity after UAT and before statewide implementation.

5.1.9.6 Defect Identification, Management and Correction

The process for defect identification will follow the general process parameters of the project’s change management process. However, defects identified during testing cycles will be managed collaboratively by the project and vendor test managers. After contract award, the project and the vendor will determine if the project change control board or a separate test change control board will be utilized. Regardless of the governance body and governance process utilized for defect identification during testing, management, correction and regression testing of defects will be a collaborative responsibility of the project, the vendor and designated stakeholders.

5.1.9.7 Version Control

Version control is the process of tracking and controlling changes in the software, including revision control and the establishment of baselines. As an element of the RFP process and the contract award, the project and the vendor will have to agree on the tools and process that will be utilized for version control. The project does not intend to proscribe specific version control tools or process, but rather allow the vendor to recommend tools and process that best support execution of the system delivery. There is the expectation that any recommended version control approach will align with the project's Configuration Management and Change Management plans.

Version control is expected to track changes to:

- Configuration files, parameter files, initialization files. This gives system administrators another way to easily track changes made and a way to roll back to earlier versions should the need arise.
- Documentation, giving the project and its administrators a single source for information about the application.
- Design documents, which will grow and change as the application is built out.
- Any other information or documents that the project needs to track as part of the software development life cycle.

The software solution will be delivered through 32 increments. These increments will include computing environments (i.e., development, test and production), software services, testing, training and deployments. Because each increment will result in a fully functional service(s), appropriate unit, integration and (where applicable) system testing cycles will be executed. Acceptance testing will be provided with each increment and User Acceptance Testing (UAT) will be executed prior to the deployments during DD&I - Phase 1 and DD&I - Phase 2.

Both formal and informal testing activities will be utilized. Formal testing activities will be executed by identified test teams, and will use test scenarios/scripts to verify/validate the delivered software. Defects will be documented, reviewed, accepted/rejected and tracked to closure by the test manager/test coordinator. Informal testing will be executed on an as-desired/as-available basis by project team and user populations in the Sandbox environment. Items that are identified for possible correction/consideration will be submitted informally to the project. The project will review all informal submissions and disposition as appropriate for formal or informal response. Formal responses will result in introduction into the defect management process.

5.1.10 **Resource Requirements**

5.1.10.1 Project Staffing Approach

The Child Welfare System New System (CWS-NS) Project staffing approach was based on the Office of Systems Integration's (OSI) best practices and the current staffing level of Child Welfare Services/Case Management System (CWS/CMS).

With regard to the OSI best practices, the models used to staff project core teams were developed by an OSI workgroup, which included representatives from the OSI PMO, CWS/CMS, EBT, UIMOD, SAWS, OSI Administrative Services, and OSI Acquisition and Contracting Services. The workgroup reviewed current and historical staffing information from all OSI projects. The group also obtained and reviewed the Franchise Tax Board's Enterprise Architecture Definition Business Process Management (BPM) v3.3 and also its BPM Best Practices document. In addition, the workgroup obtained staffing information from the very large CCSAS Project managed by the California Department of Child Care Services as well as organization charts from some of California's other large, complex projects.

The models were developed for each of three lifecycles which may be part of an OSI project's life: Project Funding/Acquisition, System Development, and Maintenance & Operations. The models were also organized by functional groupings. The functional groupings and functions were drawn from the PMBOK, ITIL v.3 (see ITIL Roles), the California Project Management Methodology, the Center for Project Management, and relevant IEEE standards (e.g. 1028, 1058.1, and 1074). The focus of the models was on the staffing required for the core IT team, and not the business program team, executive management or other supporting entities.

The following reflects the benefits of the OSI best practice staffing models:

- Establish a standard project organization structure for justifying the resources and funding for new and continuing projects
- Provide a consistent acquisition pattern for the vendor community
- More efficient use of resources both in projects and centralized services
- Justification for resources/positions in project approval documents/budgets
- Requirements for acquisition documents
- Task descriptions for duty statements

Roles and responsibilities may be performed by state staff, contractor staff, or a combination of both, depending on a project's needs.

As mentioned earlier, the OSI best practice staffing models are derived from a cross-section of several IT projects. They represent general standards in developing staffing plans for a core team based on the size and complexity of a given project. However, variations in the number and types of staff required may vary from one project to another depending on the solution, application development approach and other pertinent factors such as time.

For additional information on OSI's project staffing approach, please go to http://www.bestpractices.osi.ca.gov/ProjectCoreTeam/Overview.shtml.

In order to substantiate the staffing level proposed for the CWS-NS Project, OSI performed a comparison between the staffing levels of the CWS-NS Project, the OSI

Best Practices models and the Employment Development Department's Accounting and Compliance Enterprise System (ACES) Project. The tables below show the functional areas which were used to classify staffing levels followed by an analysis of each functional area table.

TABLE 5-4 - ADMINISTRATIVE

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Deputy Director	CEA		1	1
Administrative Assistant	TA I			1
Executive Assistant	EA		1	
Asst. Deputy Dir/Project Director	DPM IV		1	1
Project Mgt Chief	DPM III		1	
Tax Program Project Manager	TA III			1
Administrative Support	OT		1	2
TOTALS		**12**	**5**	**6**

In the functional area of Administration, the CWS-NS Project has a total of five staff in comparison to the ACES Project which has a total of six staff. The difference is the extra staff accountable to Administrative Support in ACES.

TABLE 5-5 - PROJECT MANAGEMENT

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Fiscal/Contracts Mgr	DPM II		1	1
Procure/Cont Analyst	Sr.ISA		1	
Procure/Cont Analyst	SISA		1	
Fiscal/Procure/Cont Analyst	SISA/TAI		1	1
Fiscal Analyst	AGPA		1	1
Sr. PMO Analyst	Sr.ISA		3	3
Configuration Mgt Analyst	SISA		1	1
QA Analyst	SISA		1	1
PMO Analyst/Scheduler	SISA		1	1
TOTALS		**9**	**11**	**9**

In the functional area of Project Management, the CWS-NS Project shows a total of eleven staff in comparison to nine staff for ACES; however, in the Program/Business functional area for ACES there are two more staff performing contracts and benefits

support (see Program/Business Table below). This makes the two projects' staffing levels equitable in the functional area of Project Management. Also, ACES procured and managed a total of four contracts while CWS-NS Project will be procuring and/or managing a total of eight vendor contracts as well as eleven county consultant contracts.

TABLE 5-6 - APPLICATIONS DEVELOPMENT & IMPLEMENTATION

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Application Mgr	DPM II		1	1
Design Analyst	AISA		1	
Design Analyst	SISA		1	1
Test Lead	Sr.ISA			1
Test Analyst	SISA		1	2
Test Analyst	AISA		1	
Design Test Mgr	DPM I		1	
Bus/Req Analyst	Sr.ISA		1	
Sr. Release Analyst	Sr.ISA		1	
Release Analyst	AISA		1	
Sr. Programmer	Sr.PA			2
Application Programmers	SPA			5
Sr. Software Developer	SSSIII			1
TOTALS		**26**	**10**	**13**

In the functional area of Applications Development & Implementation, the CWS-NS Project has a total of ten staff in comparison to the ACES Project which has a total of thirteen staff. The difference of three staff is related to the programming staff used by ACES.

TABLE 5-7 – CUSTOMER RELATIONS

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Customer Relations Mgr	DPM II		1	
System Support Analyst	SISA		6	
TOTALS		**6**	**7**	**0**

The Customer Relations functional area is unique to CWS/CMS. These seven staff support the counties by providing outreach for CWS which includes technical support, program training and organizational change management. A comparable area in ACES would be in the Program/Business functional area. The ACES Project includes nine staff that are involved in OCM, communications/outreach and training in the Program/Business functional area.

TABLE 5-8 – TECHNICAL ARCHITECTURE & INFRASTRUCTURE

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Technical Chief	DPM III		1	1
Solution Engineer	SSS III			1
Database Developer	SSS II		2	1
Operations Mgr	SSS III Sup		1	
Systems Architect/Lead Architect	SSS III		1	1
Sr. Infrastructure Eng	SSS III			2
Infrastructure Eng	SSS II		1	1
Infrastructure Eng	SSS I			3
Security Admin	SSS II		1	
Web Analyst	SISA		2	
TOTALS		**16**	**10**	**10**

In the functional area of Technical Architecture & Infrastructure, the CWS-NS has a total of ten staff in comparison to the ACES Project which also has a total of ten staff.

TABLE 5-9 – PROGRAM/BUSINESS

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Program Mgr	SSM III		1	
Project Support Mgr	SSM II		1	
Business Program Mgr	SSM I		1	
Program Support Mgr	SSM I		1	
Oversight Analyst	Sr.ISA		1	1
Fiscal Analyst	AGPA		1	
Contract & Admin Analyst	AGPA		1	
SACWIS Analyst	AGPA		1	
Business Analyst	AGPA		1	
Adoptions Specialist	SSC III		1	
CWS Program Specialist	SSC III		1	

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
Admin Assistant	OT		1	
Legal Counsel	Staff Counsel III		1	
Functional Line Managers	TAI			12
Functional Program Managers	TA II			3
Benefits Measurement and Project Support Manager	TA II			1
Organizational Change Management Project Manager	TA III			1
Collection Analyst	Sr.TCR			6
Audit Analyst	TAU III			3
Accounting Analyst	AO II/III			6
Organizational Change Manager	TA1			1
OCM Agent	Sr.TCR			2
Communications/Outreach Manager	TA1			1
Communications Analyst	Sr.TCR			2
Training Manager	TAI			1
Trainers	Sr.TCR			2
Data Conversion & Interfaces Analyst	Sr.TCR			2
Contracts and Benefits Analyst	Sr.TCR			2
TOTALS		**N/A**	**13**	**45**

The CWS-NS Project plans to use 13 state staff along with county representatives and contractors, which is not shown in the table above, to perform the required program and business activities including organizational change management, communications, training, data conversion, and other activities.

TABLE 5-10 – STAFFING GRAND TOTALS

Functional Areas	Classifications	OSI Best Practices	CWS New System	ACES
GRAND TOTALS			**56**	**83**

Using this project staffing approach, OSI plans to leverage existing state staff from the CWS Automation Study Team (CAST) and redirect existing state staff from CWS/CMS Maintenance and Operations (M&O) to minimize the need to hire new staff while reducing the risk of having a lack of skilled resources on the project when they are required. As the new system is in development, changes to the existing system will be curtailed, with the exception of mandated legislative changes. This will enable staff to transition to the new system project without effecting current maintenance and

operations workload. If workload is impacted on the current system, limited term positions may be necessary to handle the workload. This approach also assumes that if sufficient qualified resources are not available within the state workforce, skills will be developed through training of existing state staff, recruited through hiring new state staff, or contracted through consulting services (i.e., vendors) as the last resort. In addition, limited term positions will be requested by CDSS for the new system project to support the business related activities on the project. These positions will no longer be needed after the system goes into full production. This approach is consistent with the Governor's 2012 May Revise that states:

"...Reduce Reliance on External Contracts – To achieve savings, the Administration will reduce its use of external state contracts. Specifically, it will decrease vendor support for information technology oversight by developing professional expertise in the state workforce. In addition, the Department of General Services, in consultation with departments, will evaluate all personal services contracts, including janitorial and security services, and transition that work to state employees where appropriate..."

There are four separate but integrated organization charts for the CWS-NS project (see Appendix C, Project Organization Chart). They cover the progressive phases of the project, which are:

- The Planning and Procurement phase.
- Design, Development and Implementation – Phase 1.
- Design, Development and Implementation – Phase 2.
- The Maintenance and Operations phase.

The organizational charts include the following key staff resources:

- Redirected staff from the current OSI, CWS/CMS M&O
- Redirected staff from the OSI, CAST
- New permanent state staff for OSI
- New limited term state staff for OSI
- Redirected staff from CDSS, CMS Support Branch
- Redirected staff from CDSS, CAST
- New limited term state staff for CDSS
- County Consultants
- Consulting services

- *Organizational Change Management (OCM)* – To provide expert consulting in planning and implementing best practices and a proven framework for OCM.
- *Technical Support Services* - To provide expert technical design, development and support for external interfaces.
- *Independent Project Oversight (IPOC)* – To provide independent oversight for project management processes and procedures as required by SIMM.
- *Independent Verification and Validation (IV&V)* – To provide independent verification and validation for information technology design, development and deployment as required by SIMM.
- *Intellectual Property (IP) Legal Services* – To provide IT legal expertise in intellectual property as well as expertise in negotiating terms and conditions, general provisions, and special provisions of the contract.
- *Independent Project Oversight (Interagency Agreement with CTA)* – To provide independent oversight for project management processes and procedures as required by SIMM.

Table 5.4, CWS-NS State Staffing by Project Phase, shows the number of redirected staff, new permanent staff, and new limited term staff across the project's four phases.

Table 5-11 - State Staffing by Project Phase

Origin of Staff Resources	Planning & Procurement Phase	DD&I - Phase 1	DD&I - Phase 2	M&O Phase
OSI – Redirected from CWS/CMS	2	11	25	25
OSI – Redirected from CAST	10	10	10	10
OSI – New Permanent	5	5	5	5
OSI – New Limited Term	3	3	3	0
CDSS – Redirected from CMS	0	0	0	13
CDSS – Redirected from CAST	3	3	3	3
CDSS – New Limited Term	10	10	10	0
Total Project Staffing	**33**	**42**	**56**	**56**
Net Redirected Staffing	15	24	38	51
Net New Permanent Staffing	5	5	5	5
Net New Limited Term Staffing	13	13	13	0

5.1.10.1.1 Planning and Procurement Phase

The Planning and Procurement Phase will occur from July 2013 through June 2015. During this phase, the project estimates a total of thirty-three (33) state staff, six (6) county consultants and five (5) consulting contracts as previously described. Of the thirty-three state staff, fifteen (15) are redirected staff, five (5) are new permanent staff, and thirteen (13) are new limited term staff. All thirty-three state staff will start working on the CWS-NS project on July 2013, except for the two (2) redirected staff from CWS/CMS. These two (2) staff will start working on the project on July 2014. The OSI and CDSS Workload Analyses of the five (5) new permanent staff and the thirteen (13) new limited term staff are shown in Appendix N, OSI and CDSS FY 2013/14 Budget Change Proposal Workload Analysis.

5.1.10.1.2 Design, Development and Implementation - Phase 1

The Design, Development and Implementation (DD&I) - Phase 1 will occur from July 2015 through September 2016. During this phase, the project estimates a total of forty-two (42) state staff, eleven (11) county consultants, and five (5) consulting contracts. Of the forty-two (42) state staff, twenty-four (24) are redirected staff, five (5) are new permanent staff, and thirteen (13) are new limited term staff.

The staff redirected from CWS/CMS to the CWS-NS Project has been matched to positions with relatively equivalent skill sets and knowledge. The CWS/CMS workload should curtail during this transitioning period; thus allowing the staff redirection to occur without impacting the current system's maintenance and operations. If the workload does not decrease, CWS/CMS will hire limited term positions, as needed, to maintain system continuity during this time period.

5.1.10.1.3 Design, Development and Implementation - Phase 2

The Design, Development and Implementation - Phase 2 will occur from Sept 2016 through Aug 2017. During this phase, the project estimates a total of fifty-six (56) state staff, eleven (11) county consultants, and five (5) consulting contracts. Of the fifty-six (56) state staff, thirty-eight (38) are redirected staff, five (5) are new permanent staff, and thirteen (13) are new limited term staff.

As with the previous phase, the staff redirected from CWS/CMS to the CWS-NS Project have been matched to positions with relatively equivalent skill sets and knowledge. The CWS/CMS workload should curtail further during this transitioning period; thus allowing the staff redirection to occur without impacting the current system's maintenance and operations. If the workload does not decrease, CWS/CMS will hire limited term positions, as needed, to maintain system continuity during this time period.

5.1.10.1.4 Maintenance and Operations Phase

The maintenance and operations phase will occur from September 2017 until the next new system solution is implemented in the future. During this phase, the project estimates a total of fifty-six (56) state staff and two (2) county consultants. The five (5) consulting contracts will not be required during this phase. Of the fifty-six (56) state staff, fifty-one (51) are redirected staff, and five (5) are new permanent staff. Thirteen

(13) new limited term state staff will no longer be needed. Of the 56 state staff, 40 are OSI staff and 16 are CDSS. The 40 PYs estimated for M&O is based on similar projects of size, complexity and scope. The CWS-NS M&O model uses a state supported system with knowledge transfer from the software vendor and prime integrator and a limited maintenance contract for vendor support. Two projects that have comparable staffing during maintenance and operations include:

- E**mployment Development Department – Accounting and Compliance Enterprise System (ACES)** – This is a Commercial-Off-The-Shelf solution similar to what is being proposed for CWS-NS. This solution utilized 88 percent of the functionality out-of-the box with the remaining being built as custom extensions (referred to as site specific code) similar to the approach for CWS-NS. The project covered a five year period from inception in July 2006 through system acceptance in July 2011. In order to keep the system up to date, ACES implements quarterly service packs which require substantial resources for analysis, testing and implementation activities. In order to adequately staff for these activities and ensure adequate knowledge transfer, their M&O consists of 42 Tax Branch staff of varying classifications based on functional area and an additional 35 Information Technology Branch (ITB) staff. IT staff support programming, application development, database administration, system administration, operations, training and data warehouse. The 40 CWS-NS staff is comparable to the 35 EDD ITB staff. Note that ACES has approximately 1,500 users and CWS-NS has approximately 22,000 users statewide.
- **Department of Social Services – Child Welfare Services/Case Management System (CWS/CMS)** – The current legacy system is supported by 49.5 state PYs. These staff resources support application analysis, design, development, testing, and training for upgrades and new releases, web services, customer support, operations, and fiscal reporting. The staffing numbers do not include staff who works for the prime vendor which is under contract with the State to support and maintain the system. CWS/CMS has approximately 22,000 users statewide which is the same user base for CWS-NS.

The 40 PYs are an estimate only at this time. As we learn more about the vendor software and solution, these staffing estimates may change and a subsequent Special Project Report will be submitted to reflect changes. Refer to Appendix C - CWS-NS Organizational Charts.

5.1.11 **Training Plan**

Like testing, training is expected to be a combination of informal and formal processes/activities during the entire development/delivery cycle. The informal training is planned to be executed iteratively, in a “Sandbox” environment, during DD&I - Phase 1 and DD&I - Phase 2. Formal user focused training will be executed in a traditional production-like test environment in the month(s) prior to release of each DD&I phase. During execution of the buy/build system delivery, users will be provided access to an environment where the completed services/configuration can be reviewed and evaluated. Incremental releases of system capabilities will be managed and

communicated to the counties (both Child Welfare and Probation) and CDSS through scheduled (i.e., bi-weekly, monthly) virtual meetings. Associated with the service/capability releases, high-level user training support will be provided through virtual meetings, on-line training aids and OCM staff. A feedback process will also be available to identify potential design flaws in the training support model and materials, as well as OCM opportunities. Use of a sandbox environment will allow users to become familiar with the solution as it evolves over a period of time, provide feedback during the process and help ensure acceptance prior to the release of service components into production.

5.1.11.1 Sandbox Training

During execution of the buy/build system delivery, stakeholders will be provided access to an environment where the completed services/configuration can be reviewed and evaluated. Incremental releases of system capabilities will be managed and communicated to the stakeholder community through scheduled (i.e., bi-weekly, monthly) virtual meetings. Associated with the service/capability releases, high-level user training support will be provided through virtual meetings, on-line training aids and OCM staff. A feedback process will also be available to identify potential design flaws in the training support model and materials, as well as OCM opportunities. Use of a sandbox environment will allow users to become familiar with the system as it evolves over a period of time, provide feedback during the process and help ensure acceptance when the product is released to production. The sandbox environment is planned to be available for on-going user discovery and informal training from August 2015 – October 2017.

5.1.11.2 Formal User Focused Training

As new functionality is added, stakeholders/county users will be able to participate in the design, testing and training processes without having to leave their county office.

The baseline training model is expected to follow a “self-training” paradigm, with on-line training as the primary delivery model. The training plan anticipates the need to provide “Train-the-Trainer” (TTT) to the Regional Training Academy’s and County based trainers to support and facilitate one-on-one training at the county level in advance of initial and ongoing implementations.

Because system access will be through the internet, training labs can be established at county designated locations, if collaborative county level training (TTT lead) is desired. This would focus on expanding and refining web-based and self-directed interactive training to increase the amount of overall stakeholder/user training participation.

The planning and execution of this formal user focused training will occur in parallel with DD&I - Phase 1 and DD&I - Phase 2. The DD&I - Phase 1 cycle will be executed between October 2015 and August 2016. The DD&I - Phase 2 cycle will be executed between August 2016 and September 2017.

5.1.11.3 The Training Environment

A centrally hosted Training and Knowledge Management environment will be available (separate from the sandbox) and will mirror the production environment including network, data, architecture, and software version. The training environment will also require the following:

- A specific data set built for training purposes must be available at all times to the training environment. This is a specially compiled set of data that allows the various users, offices, and resources to train personnel to use the CWS-NS Project.
- The ability to refresh, alter and remove personally identifiable data in the training dataset to make it relevant to the training to be accomplished.
- The ability to manage the system date and time to emulate different time periods.
- The capability to manage and track the various training databases and versions.
- Limit the administration of the training environment to authorized users.
- The ability to release functionality to the training environment prior to release in the production environment and retain the old version.

5.1.12 **On-going Maintenance**

An SI will be needed to implement the solution and build, integrate, and deploy any custom-built services. The SI will provide maintenance and operation services for the term of the contract.

The SI and the State will negotiate and approve a Service Level Agreement (SLA) that addresses the following performance areas:

- End-to-End Response Times (system performance)
- Capacity (system growth adaptability)
- Availability (resilience to component failure and ability to perform maintenance)
- Disaster Recovery (ability to recover at an alternate site)
- Reliability and Integrity of Data (security and backup/recovery practices)
- Incident Resolution (Service Desk and issue resolution performance)
- Enhancement Processing and Timeliness (Enhancement request timeliness)
- Any augmentations

The SI will provide to the State, 60 calendar days following the completion of the implementation phase, an updated SLA with any suggested modifications based on experience gained in terms of system service level needs and responses.

The SI will submit a final SLA to the State incorporating any state approved changes for review and acceptance by the State.

The SI will review on a monthly basis with the proposed solution project office performance against SLA provisions to determine the need for any State Credits.

The applicable warranties and maintenance agreements for the proposed system will utilize industry standards and best practices to manage these agreements.

5.1.13 **Information Security**

The proposed system will provide sophisticated role-based security and assignment that allows each CWS worker access to all data and information needed to do the work, yet at the same time ensure that sensitive information can only be accessed by authorized personnel. The system is expected to have the capability to manage roles and security of CWS workers.

Since the system will contain information that is highly sensitive in nature, the security framework will offer end-to-end protection with compliance reporting across users, data, applications and physical infrastructure. The security framework will provide:

- Identity and access assurance with efficient user lifecycle administration and access controls as well as integrated data auditing and application security. This will provide fine grained application entitlements, centralized security policy management and centralized encryption key lifecycle management security management for the application platform, enhanced security administration, user management and compliance reporting with automated user activity monitoring, tracking, reporting and remediation.
- The proposed system will provide a security threat mitigation solution. This end-to-end risk management solution will protect against the latest threats while reducing the costs and complexity of security.
- Finally the proposed system will be built on a technology that will help achieve faster endpoint management with minimum system administration.

5.1.13.1 Confidentiality

The proposed system will contain information that is highly confidential in nature. A security framework will offer end to end protection in compliance with the confidentiality requirements associated in the proposed system. In addition to the security framework, confidentiality requirements will be met by the following:

5.1.13.2 Data Encryption

Advanced Encryption Standard (AES) is the proposed system specification for the encryption of electronic data. Adopted by the U.S. government and is now used worldwide and supersedes Data Encryption Standard (DES).

5.1.13.3 Secure Connection

Hypertext Transfer Protocol Secure (HTTPS) combines Hypertext Transfer Protocol (HTTP) with Secure Socket Layer (SSL) protocol, which would provide encrypted communication and secure identification of a network web server in the proposed system. HTTPS connections in the security framework would run from the counties to the application in the State Data Center. This type of connection is often used for sensitive data transmissions on the World Wide Web as well as sensitive transmissions within an organization's information systems.

5.1.13.4 Two Factor Authentication

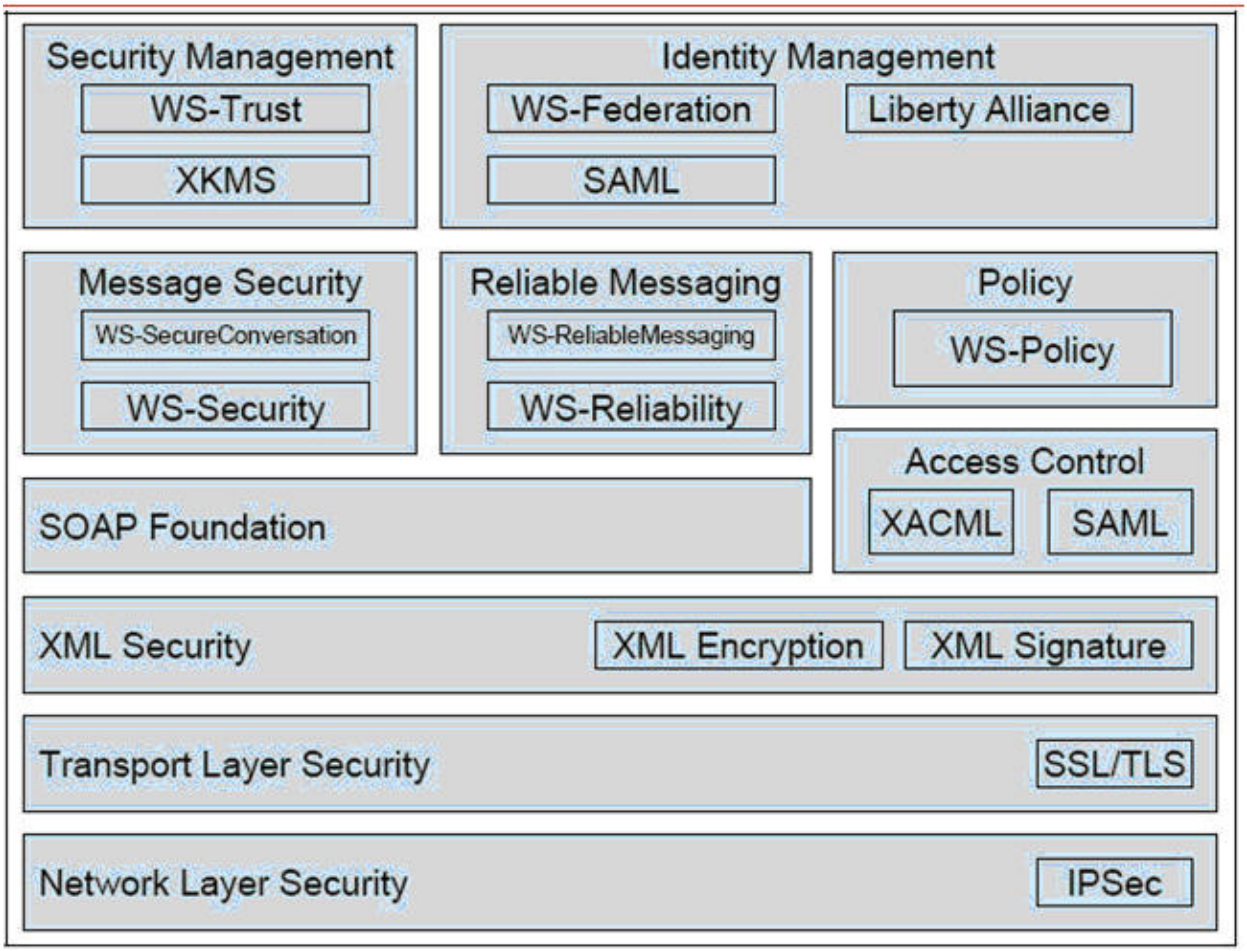
Used in the system security framework. This approach to authentication requires the presentation of two different kinds of evidence that someone is who they say they are. It is a part of the broader family of multi-factor authentication, which is a defense in depth approach to security.

As the CWS-NS Project moves to an online, shared services environment it is imperative that it implement a security system that ensures only authorized users get access to services that contain sensitive information. For the State, this includes SOA security and a federated identity management system.

5.1.13.5 Federal Guide to Web Services Security

The Federal government has released the Federal Guide to Web Services Security (NIST 800-95). This is a detailed document that explains the many parts of federated identity management. The CWS-NS Project identity management model should be compliant with this federal guide. Included is this chart that shows the major standards grouped by function.

Figure 9 - Federal Security Standards Model



There are three main security elements to the federal model:

- XML Encryption (W3C standard) is used to achieve Web service message confidentiality. This standard can be implemented using either SAML or X.509 certificates.
- XML Signature (W3C standard) is used to achieve Web service message integrity. This ensures that the message came from where you think it came from and was not hijacked (or altered) along the way. Again, either SAML or X.509 certificates can be used.

- WS-Security, WS-Federation, SAML, WS-Trust, and WS-Policy (all OASIS standards) are the primary standards for managing authentication. Web Services Security (WS-Security) ensures end-to-end security instead of point-to-point (like SSL).

The CWS-NS Project envisions that these elements will be included in the CWS-NS Project Identity Management functions.

5.1.13.6 The CWS-NS Project Identity Management Key Points

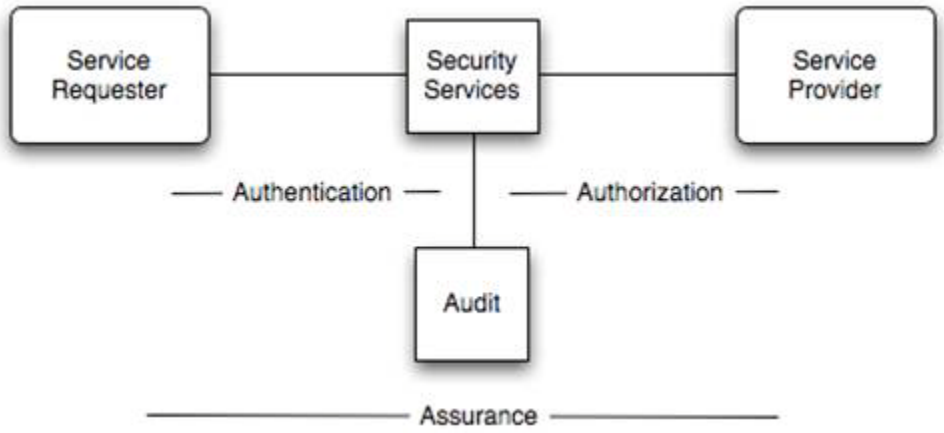
There are several key factors or points that must be met to achieve the type of identity management that the CWS-NS Project envisions. Such an Identity Management system must:

- Be consistent with federal standards and guidelines.
- Be designed to accommodate all stakeholders (as identified in the RFP).
- Support information sharing both public and private.
- Be subject to data sharing policies.
- Manage users in a consistent way with authentication at the level specified by the services they are accessing.
- Have extensive auditing capability of both user access details as well as the data they accessed.
- Have interoperability standards that are defined; in most cases, communications will be via SOAP (v1.2+) messaging, data will be formatted in XML, and services will have Web service interfaces.
- Allow for a SOA environment that is designed to handle online interactions via voice or Web channels using the same services and interoperability processes.
- Have SAML as the preferred mechanism for formatting identity information. Stakeholders may use either WS*, SAML, or CardSpace to share the identity information (subject to sharing policies).

5.1.13.7 Authentication and Authorization

Authentication is the process of establishing who a person is. Authorization is the process of determining a set of permissions that will be granted to a specific trusted identity. Authorization follows authentication. Once an identity is known, the CWS-NS can determine what the appropriate level of access is for any user.

Figure 10 - The CWS-NS Authorization Model



5.1.13.8 The CWS-NS Authentication

There are a number of methods for providing authentication. The most common process is a two way matching process between a public identifier (i.e. a user name or user id) and a private identifier (i.e. a password). For the CWS-NS, the user id/password combination is the most practical to avoid the pitfalls of managing physical devices (such as a device that would maintain a certificate or a key to identify a user). The goal of the authorization process is to enable any person to come to the CWS-NS and establish a set of credentials which can be used to identify themselves - without waiting for the access or sign on to be mailed to them. This method is also hardware independent and portable because with a user id/password, the CWS-NS can be accessed regardless of the machine being used or carrying a device with the certificate.

The purpose of authentication is to establish a trust relationship between a provider of services and a consumer of services. Since the CWS-NS may never physically meet the user, some mechanism is needed to certify that the person on the other end of the internet is who they claim to be. Without that trust, it is very difficult to enable access to restricted resources, information or processes.

The requirements for establishing an authenticated identity are standard and straight forward. It is possible to define a process for creating "an online account". In doing so, no special data is needed to establish the right to access any specific functionality. This creates enough uniformity to place the user credentials in a central repository, specifically for the CWS-NS.

Authentication also comes with a specific set of processes that should be universally available to the CWS-NS users:

- Requesting an ID
- Validating an associated e-mail address
- Creating a password

- Applying a policy for passwords
- Forgot User ID
- Forgot Password
- Resetting passwords
- Changing passwords (depending on policy)

5.1.13.9 Authentication Levels

The Federal Electronic Authentication Guide (NIST 800-63) defines four levels of authentication as well as a risk assessment guide for mapping services to the appropriate authentication level:

- **Level One – Basic**. User ID and Password via a simple password challenge-response protocol is the normal implementation at level one.
- **Level Two – Single Factor**. Shared secrets (Pet's name,, mother's maiden name, favorite color, etc.) are used to further verify a user's identity. Authentication is conducted by an Identity Service Provider via a secure authentication protocol, as defined in WS-Security (such as SAML), and a security credential ("token") are required.
- **Level Three – Multi-factor**. Authentication (via an Identity Service Provider) requires that the claimant prove through a secure authentication protocol that he or she controls the token (usually by a digital signature), and must first unlock the token with a password or biometric, or must also use a password in a secure authentication protocol to establish two factor authentication. Tokens must be one of three types: "soft "cryptographic, "hard" cryptographic or one-time password devices.
- **Level Four – Only "hard" (physical hardware) cryptographic tokens are allowed**. These are often "smart cards" that contain biometric information.

The CWS-NS envisions a data classification process will be done where an initial security level will be set. The security level will be verified by a final risk assessment performed by the State.

5.1.13.10 Authorization

Authorization is the process of determining a set of permissions that will be granted to a specific trusted identity.

- Granting permissions may happen automatically once authentication is established.
- In the case of the CWS-NS, an authenticated user may first need to establish a valid business reason for obtaining specific permissions.

- Additional data may be required to determine the basis of the permissions - things like the existence of a contract, connection to a specific case or process, or an involvement with a case or client of the CWS-NS application.

The CWS-NS envisions the use of SAML as a standard in the authorization process

5.1.13.11 Identity Management

Identity management (IdM) deals with identifying individuals in a system and controlling access to the resources in that system by placing restrictions on the established identities of the individuals. This will involve the following processes as part of the CWS-NS:

- Management of identities
  - Provisioning/De-provisioning of accounts
  - Workflow automation
  - Delegated administration
  - Password management
  - Self-service password reset
- Access Management
  - Policy-based access control
  - Enterprise/Legacy Single sign-on (Enterprise/Legacy SSO)
  - Web Single sign-on (Web SSO)
  - Role-Based Access Control (RBAC)
- Directory services
  - Identity repository (directory services for the administration of user account attributes)
  - Metadata replication/Synchronization
  - Directory virtualization (Virtual directory)

5.1.13.12 Management of Identities

The CWS-NS system will manage identity data for two broad kinds of users:

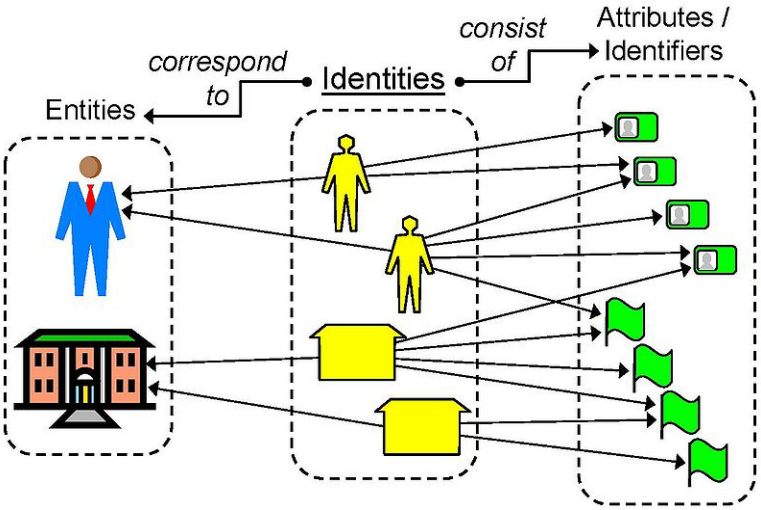
- Internal: including state and county employees and service providers. These people will spend many working hours engaged with the CWS-NS. They often access multiple functions and their identity profiles are relatively complex.
- External: including the reporting public, mandated reporters and other partners and information suppliers. There may be more external users than internal users. External users generally access narrow portions of the system (i.e., mandated reporting) and do so frequently to provide updates. Identity

profiles of internal users tend to be less complex and detailed than internal user profiles.

In the CWS-NS, the managing identities process will do the following:

- Establish an identity:
  - Link a name (or number) with the subject.
  - Re-establish the identity (i.e. links a new or additional name, or number, with the subject).
- Describe the identity:
  - Optionally assign one or more attributes applicable to the particular subject to the identity.
  - Re-describe the identity (i.e. changes one or more attributes applicable to the particular subject).
- Follow identity activity:
  - Record and/or provide access to logs of identity activity
  - Optionally auto-analyze behavior patterns of the identity

Figure 11 - The CWS-NS Identity Management Model



- Destroy the identity.

5.1.13.13 Access Management

Access management refers to the process of controlling and granting access to satisfy requests. This process is completed through a sequence of authentication, authorization, and auditing actions. Together, authentication, authorization, and auditing are also commonly known as the gold standards of security.

There are three key technical issues to be handled in the CWS-NS security design for integrating authentication, authorization, and auditing mechanisms into the application architecture:

- Single Sign-On (SSO)
- Trust and Federation
- Auditing

5.1.13.14 Single Sign-On (SSO)

A CWS-NS user will not have to login multiple times in order to gain access to the various business applications and processes that they use in their jobs. Because of the intractable problems that multiple identities present, the concept of SSO is envisioned for CWS-NS identity management.

5.1.13.15 Web SSO - Web Access Management / Web Single Sign On

For the CWS-NS, a Web Access Management (Web AM)/Web Single Sign-On (Web SSO) system is envisioned as being used to manage authentication and authorization of users accessing the web-enabled application and its processes.

In this context, a Web SSO system intercepts initial contact by the user's web browser to the CWS-NS system and either verifies that the user had already been authenticated or else redirects the user to an authentication page, where the user may use a password, token, PKI certificate or other method to be designed to authenticate the user.

Once a user is authenticated, the Web AM component of the CWS-NS controls the user's access to application functions and data. This is done either by filtering what content the user can access (e.g., URL filtering) and by exposing an API that the application can use to make run-time decisions about whether to display certain forms, fields or data elements to the user.

Web SSO/Web AM typically uses an LDAP directory as a back-end repository, to identify all users. They must be tightly integrated with the "identity and access management" application, which enables delegated and in some cases self-service administration of the contents of that single directory.

5.1.13.16 Federated Sign On

The CWS-NS will interface with many other agencies, both inside and outside the state. To do this, the CWS-NS envisions the use of a federated sign-on which requires the application authentication infrastructures to understand trust relationships and

interoperate through standard protocols. Federated sign-on means that the authentication responsibility is delegated to a trusted party, in this case the CWS-NS system itself. Application users need not be prompted to sign-on again as long as the user has been authenticated by a federated (i.e. trusted) authentication infrastructure component.

5.1.13.17 Trust and Federation

As mentioned in the Single Sign-On section, federation offers a form of SSO solution and is envisioned as part of the CWS-NS application. However, federation is more than just SSO. Federation implies delegation of responsibilities honored through trust relationships between federated parties. There are three technology elements that are crucial to the concept of federation:

- A federation protocol that enables parties to communicate.
- A flexible trust infrastructure that supports a variety of trust models.
- An extensible policy management framework that supports differing governance requirements.

A basic policy management framework must allow policies to be created, deleted, modified and discovered. In order to promote federated systems that enable new business connections and partnerships to be quickly integrated, the policy management framework must also be extensible to reflect the dynamicity of the environment it aims to support. Some examples of application policies that are relevant to federation are:

- Trusted issuer of identity-related capabilities.
- The types of capabilities required to invoke an application's operation.
- The kinds of identity information that the application expects in capabilities.
- The kinds of privileges that an identity must demonstrate in order to invoke a service.

All of these are envisioned as being dealt with as part of a federated CWS-NS security solution and must follow California identity management guidelines.

5.1.14 **Impact on End Users**

The anticipated impact of the new system on its end users will manifest in some change to work activates like the elimination of manual processes through automation and a centralization of tasks in the proposed system rather than disparate systems. This will require additional end user training developed by the system vendor as described above in Section 5.1.11 Training Plan.

The proposed solution will automate many time-intensive manual processes; this automation will allow CWS-NS staff to better manage clients. Potential impacts include:

- It is anticipated that Business Process Re-engineering (BPR) will be required. The process will initiate with the program and stakeholder community evaluating their current business practice for potential efficiencies and existing

practice redundancies. The vendor of the purchased product will analyze their product offering against the business practice and communicate where there are gaps that will need to be addressed. Wherever possible, the program and stakeholder community will realize the greatest cost efficiencies by facilitating adaptations of the business practice processes to align with the purchased product capabilities. When business practice process adaptations are not feasible, a custom service(s) will need to be developed to close the functional gap.

- CWS-NS will acquire some information differently. CWS-NS will have access to information to which it has not previously had access. Users will need to learn how to effectively use the new sources of information.
- End users will have a decreased reliance on the existing manual processes by providing client data via an automated system.
- Organizational Change Management (OCM) will be planned, communicated and implemented prior to deployment to ensure the maximum staff acceptance of program/stakeholder accepted business practice process adaptations and changes.

5.1.15 **Impact on Existing System**

The existing system will need to be supported during the design, development and implementation of the proposed system. After a period of time the existing system will be terminated. There are no plans to utilize any hardware or software from the existing system. Existing system data will be converted and integrated to the proposed system during DD&I - Phase 1.

The project schedule provides an estimated cost of approximately $1.4 million and 11,600 hours for the SI to complete the conversion of the CWS/CMS Data and the External Systems Data.
This is detailed in the "SI Contract Services / Core Services / Design & Configuration / Team 2" subsection of the project schedule (lines 39 & 40).

Additional data conversion activities (plan of approximately $31 m) to be complete at the county level (analysis, data cleanup, data preparation) are provided in the Other Costs line item of the EAW's.

5.1.16 **Consistency With Overall Strategies**

The proposed system is consistent with California's 2011 IT Strategic Plan and California Health and Human Services' (CHHS) Information Management Strategy as well as federal SACWIS requirements. The most significant areas of improved alignment are in State Data Center utilization (see Section 5.1.19 Impact on Data Centers and Section 5.1.20 State Data Center Consolidation).

5.1.17 **Impact on Current Infrastructure**

The proposed system will not require any changes to the agency's existing IT infrastructure but will require various technical changes to the counties access to the State Data Center's as well as the California Government Enterprise Network (CGen). Since the proposed system will be the first county-administered, statewide automated system utilizing web based technology it is best positioned to provide State Chief Information Officer's CGen migration and maintain compliance the CTA directive. During the planning phase of the proposed system an analysis must be conducted to determine the counties web- based technical stability. That analysis will establish whether counties leverage local IT hardware systems and/or software services or be dependent on the state to provide continued support.

5.1.18 **Impact on Data Center(s)**

The proposed system would be vendor managed and not require additional State Data Center support capabilities beyond current levels required for other state customers in the TMS-P. The State Data Center's infrastructure would not need to be augmented; however, there is potential for the addition of state services available in the service catalog based on the proposed system's SOA model.

While there is no impact on the State Data Center based on this system, Help Desk services will continue as in the current system based on the existing service level agreement..

5.1.19 **System Hosting/Data Center Consolidation**

The checked box describes the entity planned to host the system.

☐ OTech Managed Services ☒ OTech Federated Data Center ☐ Agency/Dept
☐ Outsourced/Other _____

The proposed system is consistent with California's State Data Center consolidation requirements.

5.1.20 **Backup and Operational Recovery**

Business requirements dictate 24 hours a day, 7 days a week, 365 days a year access to data in the system of record. To comply with this requirement and keep with federal mandates the following backup and recovery areas would be implemented in the proposed system:

Fail over site: A warm fail-over site has been included in the cost of this FSR. However, the location of the site and whether it will be state or vendor managed is unknown at this point.

We recommend the following fail-over environment equipment:

- A fail-over database server with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space utilizing SAN technology.
- A fail-over backup database server with at least eight 2.13 GHz, quad-core (4 Core) processors with 8 GB of memory and 4 TB of disk space of SAN storage.
- Five fail-over application servers with at least sixteen 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 1TB of disk space.
- Two fail-over web servers with at least eight 2.13 GHz, quad-core (4 Core) processors with 16 GB of memory and 500 GB of disk space.

In the proposed solution, the State Data Center will work with the contracted vendor, county and state to determine the best fail over service offerings at the point when the solution is implemented.

Offsite Data Storage: The vendor will provide off-site storage of the vital electronic data processing files away from the State Data Center. In the event of a disaster that affects the primary business location, customers will be able to restore vital electronic records and recover processing capabilities while restoring normal business functions.

Data Archiving Requirements: The proposed solution will include processes for archiving and purging its data. The solution will support a range of system functions which includes the ability to archive data for recall purposes and to purge it where appropriate. This functionality will enhance storage capability, efficiency in relevant and expeditious searching of data, and the ability to economically retain historical information.

Data Migration: The vendor will provide data migration plan that utilizes industry standards and best practices which most closely aligns with the proposed solution. The plan will include design, migration, and data validation. In the event of data loss the vendor will provide a data rollback strategy to restore critical records and recover lost data.

Rollback Strategy: The rollback strategy will define the vendor plans to use backup and recovery procedures to return the production environment to the state it was in before changes were made. Rollback strategies will be problem specific approaches for different types of issues; for example, backing out an entire system change or a specific component if the issue is isolated. The strategy will define how data or systems are recovered in each of the rollback plans.

Network Connectivity: Network recovery/Point of Presence (POP) will be included in the proposed system by the State Data Center to provide for recovery of communication circuits disabled by a disaster in which a POP site has been destroyed.

5.1.21 **Public Access**

Public access to the proposed system would allow SSL access to the various types of users of the system including Indian tribes, family and juvenile courts and court officers, foster youth, foster parents, biological parents, guardians, adoptive parents,

Independent Living Program service providers, mental health and other therapeutic service providers, law enforcement agencies, and community based service organizations. Users with secure access will enter and retrieve information on the system and the case worker can retrieve it to add to their court report or use as part of their family assessment.

The CWS-NS must operate with secure connections at all times. To ensure this, the CWS-NS envisions the following will be implemented:

- SSL – with a minimum of 256-bit encryption or higher if available.
- Secure channels will be used.
- There will be a configuration facility to allow the configuring of all security levels, controls, settings, environments, etc.
- Communications from the Web servers in the DMZ to the internal application servers will use WS-Security and Kerberos tokens.
- All data will be encrypted whether at rest or in motion.
- CAPTCHAs (Completely Automated Public Turing test to tell Computers and Humans Apart) will be used as part of the authentication process where ever registration is being done, where any sort of attack may occur or where bots will not be allowed.
- Secure standards will be implemented for all VPN activity within the CWS-NS.

5.1.22 **Costs and Benefits**

Total Project Costs

The Buy/Build proposed solution's Total Project Costs include One-Time IT Costs and Continuing IT Costs.

5.1.22.1 One-Time IT Costs

One-time cost estimates were calculated over a period of 51 months: a 24-month period for the planning and procurement phase and a 27-month period for the Development and Implementation phase. The proposed solution total one-time costs average $70.2 million annually. With approved FFP of 50 percent, the approximate annual SGF cost will be $35.1 million (based on five years of One-Time IT Costs). The table following depicts the SFY one-time cost breakdown by category of expense.

Figure 12 - Estimated One-Time CWS-NS Costs

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	31.0	3,289,316	33.0	3,502,642	42.0	4,469,978	52.5	5,641,459	14.0	1,507,988	0.0	0
Hardware Purchase		0		0		1,569,000		1,104,000		276,000		0
Software Purchase/License		0		0		37,854,340		8,116,175		2,029,044		0
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		0		0		9,691,096		10,884,846		2,839,962		0
Project Management		0		0		0		0		0		0
Project Oversight		127,842		127,842		127,842		127,842		31,961		0
IV&V Services		317,520		425,376		788,256		788,256		52,416		0
Other Contract Services		3,567,662		4,182,838		7,060,929		9,194,550		4,181,387		0
TOTAL Contract Services		4,013,025		4,736,056		17,668,124		20,995,495		7,105,726		0
Data Center Services		247,955		247,955		734,360		734,360		183,590		0
Agency Facilities		392,000		1,171,930		348,140		343,140		85,785		0
Other		2,359,750		23,990,821		65,910,150		84,953,561		45,464,908		0
Total One-time IT Costs	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,888,190**	**14.0**	**56,653,040**	**0.0**	**0**

	FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)		0		0		0		0	172.5	18,411,385
Hardware Purchase		0		0		0		0		2,949,000
Software Purchase/License		0		0		0		0		47,999,559
Telecommunications		0		0		0		0		0
Contract Services										
Software Customization		0		0		0		0		23,415,904
Project Management		0		0		0		0		0
Project Oversight		0		0		0		0		543,330
IV&V Services		0		0		0		0		2,371,824
Other Contract Services		0		0		0		0		28,187,367
TOTAL Contract Services		0		0		0		0		54,518,424
Data Center Services		0		0		0		0		2,148,220
Agency Facilities		0		0		0		0		2,340,995
Other		0		0		0		0		222,679,190
Total One-time IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**172.5**	**351,046,772**

The estimated one-time project costs associated with the proposed solution consist of Staffing, Hardware and Software Purchase, Contract Services, Data Center Services, Agency Facilities, and Other. The cost estimates for these line items consist of the following assumptions:

5.1.22.1.1 Staffing

Personnel Year (PY) costs are developed based on a combination of classification pay scales and benefits (retirement, medical, dental, etc.). In building the PY costs, the benefit factor is applied to each classification individually. Therefore, the individual PY cost estimates will vary by classification.

Refer to section 5.1.10.1 for details of the staffing methodology and approach.

5.1.22.1.2 Hardware/Software Purchase and License

Hardware

One-time project costs for hardware for the CWS-NS Project are $2,949,000 and include the following hardware which will be purchased during DD&I – Phase 1.

Hardware Description	Quantity	Unit Cost	Total
Servers	22	$15,000	$330,000
Firewalls	4	$6,750	$27,000
Storage Area Network	1	$1,647,000	$1,647,000
Disaster Recovery	24,000	$33.75	$810,000
Fail Over Hardware:			
Production Database Server	1	$15,000	$15,000
Backup Production Database Server	1	$15,000	$15,000
Production Application Servers	5	$15,000	$75,000
Web Servers	2	$15,000	$30,000

Software

One-time project costs for software for the CWS-NS Project are $47,999,559 and include the following software:

Software Description	Quantity	Unit Cost	Total
Application Software License	17,000	$2,720	$46,240,000
Enterprise Service Bus	480	$862	$413,640
Enterprise Data Warehouse	Varied	$82,900	$83,788
Enterprise Database	6	$28,688	$172,125
Reporting Software	2	$149,625	$299,250
Service Desk Software	335	$2,178	$729,600
Virtualization Software License	8	$3,500	
Virtualization Software	Varied	$3,637	$29,094
Virtualization Server Software	Varied	$1,250	$6,563
Fail Over Software:			
Production Database Server Software	1	$12,750	$12,750
Backup Production Database Server	1	$12,750	$12,750

Software Description	Quantity	Unit Cost	Total
Software			

The COTS solution software (Application Software License) assumes an annual unit cost of $2,170 per user for 17,000 total licenses. An annual software maintenance fee is estimated to be 20 percent of the base cost amount.

5.1.22.1.3 Contract Services

Contract services costs are comprised of the SI vendor services, Independent Project Oversight, and IV&V services.

SI Vendor Contract

SI vendor costs are a compilation of costs, as follows:

- System integrator services - SI services begin in FY 2015/16 and continue on through M&O.
- System integrator contract – System changes are estimated at ten percent of the contract.
- Training for the new system solution - Training for the new system solution will occur in DD&I – Phase 1 and DD&I – Phase 2, and is estimated to be a total cost of $5,450,000.
- Software license purchases (enterprise service BUS, application databases, desktop/server and support, customer service and management, application platforms, including fail-over software) - Software licenses purchases for One-time project costs are estimated at $47,999,559.
- Hardware for system solution including fail-over hardware - Hardware purchases consist of servers, firewalls and SAN in FY 15/16. The servers are on a five-year refresh cycle.
- Facilities (furniture, building leases, facility modifications, moving costs, voice and data modifications, conference room rentals and CDSS facility costs) - At the initiation of the Planning and Procurement Phase, the CWS-NS Project will move to the former location of the CWS Web Project and will stay in that facility through the Planning and Procurement Phase. Total One-Time Costs for Agency Facilities are estimated to be $777,065 and are comprised of one-time furniture purchases, lease costs, facility modifications, moving costs, conference room rental, voice and data modifications and CDSS facility costs. In July 2015, the CWS-NS Project is moving to new facilities due to the increase in the number of staff.

Independent Project Oversight Contract

The Independent Project Oversight contract totals $543,330. This contract will be an interagency agreement between OSI and CTA to bring on a limited term Data Processing Manager III from July 2013 through DD&I (September 2017).

Independent Validation and Verification Contract

The Independent Validation and Verification (IV&V) services contract totals $2,371,824. This contract will provide a total of four consultants during the planning, procurement and DD&I phases. One consultant will initiate project support in July 2013; a second consultant will be added in January 2014. Two additional consultants will be added in July 2017 (DD&I - Phase I). These four consultants will support the project through June 2017, then one consultant will remain until the project closure activities are completed in Aug 2017.

5.1.22.1.4 Other Contract Services

Other Contract Services costs total $44,355,526.

Technical Support Services Contract

This cost includes a technical service contract to provide technical subject matter expertise (SME) at a cost of $3,041,280. This technical SME will provide support for definition and delivery of the Information Exchange Interfaces between July 2013 and June 2016.

County Consultant Contracts

Also included in this category are several county consultant contracts to ensure business and program needs are met. These 11 county consultants' contracts total $6,006,000 and cover the period from project initiation through M&O. Six county consultants will join the project at the initiation of Planning and Procurement. Six additional county consultants will join the project at the beginning of DD&I - Phase I. The one county consultant providing APD support (including coordinating and preparing the PAPDU's, IAPD, IAPDUs, and As Needed documents) through Planning/Procurement and DD&I - Phase 1 will be replaced by a re-directed CWS/CMS staff member at the beginning of DD&I-Phase 2. At the beginning of M&O, the county consultant participation will be reduced from a total of ten to just two. During M&O ongoing federal and state mandates along with implementation of best practices for business practices requires ongoing consultation with county consultants to represent county business practices (both child welfare and probation) for statewide initiatives.

County Welfare Directors Association Contract

Other Contract Services include a County Welfare Directors Association contract at a total cost of $384,268.

Intellectual Property Legal Services Contract

An intellectual property legal subject matter expert at a cost of $250,000.

Organizational Change Management Contract

Organizational Change Management (OCM) support at a cost of $3,432,000. The OCM contract will initiate with one consultant in July 2013 and will include a second consultant in July 2015. These two consultants remain through September 2017.

Regional Training Academy (RTA) Contract: The RTA contract cost $28,356,000 includes contract augmentation for Regional Training Academies. Half of this cost is for OCM training and the other half is for new system training.

Prosci Site Licenses

Also included in the Other Contracts costs of $664,650 are Prosci site licenses (toolkit, materials and licenses) and ADKAR costs (certifications, train the trainer and certification programs).

DGS Fees

DGS fees total $231,790 and were calculated per the DGS' 2011-12 Price Book at 1.40 percent of the value of the order or a maximum of $35,000

Data Center Services - (Tenant Managed Services Premium)

Total One-Time Project Costs for Data Center Services are estimated to be $2,148,220. The cost estimates are based on anticipated services and the OTech pricing schedule. The Data Center Services costs are comprised of (the cost shown is the total One-Time Project Cost for that item): Pricing based on current CWS/CMS billing from OTech service catalog listings:

- E-mail services and storage costs of $906,780: assumes a recurring monthly cost for e-mail accounts and e-mail storage. A monthly charge of $11,480 is for 2,835 accounts. The monthly e-mail storage cost is $6,300 for 315 GB.
- Core networking services (OPT-E-MAN) of $945,000: assumes a recurring monthly cost of $3,500 per unit for ten units.
- OTech service request charges of $47,190: assumes 363 hours at $130.00 per hour at a G300 Level 2 Consultant rate.
- TMS-P racking services (standard cabinets) of $202,500: assumes a recurring monthly cost of $7,500 per unit for three units.
- CDSS Data Center costs for various services at a cost of $46,750.

Other

The One-Time Project Other Costs are comprised of all other expenses directly attributable to the project and total $208,501,190.

- **Operating Equipment & Expenses (OE&E):** assumes a recurring annual cost of $10,914/PY for all OSI staff, recurring annual cost of $8,265/PY for all OSI consultants, and a recurring annual cost of $2,470/PY for all CDSS staff and contractors.

- **Travel:** assumes additional travel costs in excess of travel budgeted in OE&E. Travel was estimated at a rate of $200/month per OSI staff (18 OSI staff), $150/month per CDSS staff (13 CDSS staff), and $2,200/month per county consultant (six county consultants). Short term travel was estimated at a rate of $1,600/month for six county consultant staff. Long term travel was estimated at a rate of $2,200/month for six county consultant staff. Other travel estimates were calculated based on the need to travel for OCM, Project communications, users and data.
- **Hardware:** assumes a hardware total cost of $144,248. This includes one server with a four-year refresh rate at a cost of $7,954. Also included are laptops for project staff use at a cost of $930/laptop with a four-year refresh rate for a total of $130,200. Thus, the total for Hardware cost as a One-Time Project cost is $146,108.
- **Software:** assumes a Server Operating System for $2,640; laptop supporting software for all project staff at an annual rate of $2,800/software; and other project software tools for a sum total of $1,128,119 for One-Time Project Software costs.
- **Information Technology Costs** of $38,250.
- **Administrative Overhead:** assumes a total one-time project administrative overhead cost of $3,091,397. Overhead is an OSI charge for centralized administrative services such as fiscal, business services, procurement, human resources, executive staff services, and for associated operating expenses and equipment. Overhead is budgeted on a per capita basis associated with OSI project staff for projects costs which the OSI has pending authority appropriation.
- **Pro Rata:** assumes a total one-time project pro rata cost of $788,808. This cost is als*o* based on the number of OSI staff on the project and an annual rate of $7,286.91 per PY.
- **Other County Costs** of $212,135,545. This cost is comprised of the FTE cost for county trainers to provide application and OCM training; project management, help desk, IT support and system administrator training FTE costs; data conversion; change management (OCM/Policy); and application and OCM training FTE time allocation costs.

5.1.22.2 Continuing IT Project Costs

Continuing IT Project Costs average $20.8 million annually. With approved FFP of 50 percent, the approximate annual SGF cost will be $10.4 million (based on five years of Continuing IT Project Costs). The table below depicts the SFY Continuing IT Project Costs breakdown by category of expense.

Figure 13 - Continuing IT Project Costs

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	30.0	3,388,470	40.0	4,517,960	70.0	7,906,431
Hardware Lease/Maintenance		0		0		0		0		558,000		744,000		1,302,000
Software Maintenance/Licenses		0		0		0		0		6,087,131		8,116,175		14,203,306
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		5,248,658		6,951,544		12,200,201
Data Center Services		0		0		0		0		559,770		746,360		1,306,130
Agency Facilities		0		0		0		0		257,355		343,140		600,495
Other		0		0		0		0		1,679,475		2,450,255		4,129,730
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**30.0**	**17,778,859**	**40.0**	**23,869,434**	**70.0**	**41,648,293**

Costing methodology for the Continuing IT Project Costs is identical to the methodology used for One-Time IT Project Costs. Varying factors are the number of staff which fluctuates during the project lifecycle. Refer to the Project Staffing Levels table above.

Continuing IT Project costs for Contract services is $41,648,293 through 2018/19. This includes the SI vendor contract at $16,332,640 plus system changes at $1,633,264. The CWDA contract stays on through 2018/19 at a cost of $428,606. County consultant contracts also continue through 2018/19 for a total of $6,006,000. DGS' fees amount to $231,790.

5.1.22.3 Continuing Existing Costs

Total Continuing Existing IT Project costs will average $56.7 million per year through DD&I. These costs are associated with M&O activities associated with the existing CWS/CMS, annual system updates and patches, county support, and other system upgrades and refreshes as applicable under the existing M&O contract. Annually, $7 million is allocated for system changes plus 6,000 hours of consulting services. With approved FFP of 50 percent, the approximate annual SGF cost will be $28.35 million. The costs are based on the current CWS/CMS baseline budget and estimated annual M&O contract increases as follows:

Figure 14 –Continuing Existing Costs

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	47.5	4,423,339	38.5	3,324,207	26.5	1,811,219	5.6	452,805	0.0	0	167.6	14,677,523
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		19,643,219		0		325,314,638
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**47.5**	**80,410,256**	**38.5**	**80,143,957**	**26.5**	**79,493,470**	**5.6**	**20,096,024**	**0.0**	**0**	**167.6**	**339,992,161**

Information Technology Staff Costs

The proposed solution continuing staff costs are as follows: Existing system support PYs and funding will be required to perform current system M&O activities, concurrently with the one-time project costs through DD&I. Existing PYs and funding

are anticipated to be redirected during 2017/18 to fund the one-time and continuing IT project costs.

Other IT Costs

Other IT Costs total $325,314,638 and reflect the baseline budget amounts for the existing OE&E, System Hardware, Software, Technical Support, Pro Rata, Overhead, and all contracts under CWS/CMS. The continuing hardware and software costs are based on the annual needs to support state and vendor staff to conduct the required M&O activities.

Please refer to Section 8 – Economic Analysis Worksheets for the fiscal year and line item cost details of the Proposed Alternative New System Buy/Build Approach.

Program Staff Costs

Existing program staff of 13.0 PYs continues through DD&I. Additional staff are added at the beginning of M&O to total 16.0 PYs. Total Existing Program Staff Costs equal $7,568,432.

Other Program Costs

Other Program Costs total $506,676,414 and include County Goods and Services which is comprised of county EDP costs at $16,568,643; System Support Staff for county IT Help Desk Costs at $108,654,000, depreciation on county equipment at $374,976 and data clean up at $13,166,667.

5.2 Rationale for Selection

The CAST developed a formal evaluation framework to assist with scoring and ranking the alternatives. The criteria that formed this framework were based on business drivers that were agreed upon by the CWS/CMS Program Impact Advisory Committee (PIAC), CWS/CMS Technical Advisory Committee (TAC), CWS/CMS Oversight Committee (OSC), an Executive Study Control Board and the CDSS Director. Employing the evaluation framework, the team analyzed, ranked, and scored each alternative (detailed in Section 5.3 – Other Alternatives Considered) based on six evaluation factors:

- CWS business needs
- Technical viability
- SACWIS
- Time
- Risk
- Cost

Scorecard	
Business	◕
Technical	●
SACWIS	●
Time	●
Cost	●
Risk	●
90 percent overall score	

Table 5-12 – New System – Buy/Build Approach – Scorecard

This evaluation framework and process emphasized the degree in which each alternative measured against the six evaluation factors and their associated criteria. The approach provided greater sensitivity to how well or how poorly each alternative compared to each criterion. The evaluation was based on independent judgment, the team's understanding of CWS' critical needs and priorities, and expert opinion. The rating selected for each criterion within the six evaluation factors was based on team consensus. Resulting scores were calculated by multiplying the weight of the selected rating and the available points for each criterion. See Appendix I, Evaluation Framework, for additional details and the actual scores of the four alternatives under examination.

Based on final scores derived from the evaluation framework, the recommended solution, New System Buy/Build, provided the best overall mix of service delivery and cost management. Its "out-of-the-box" approach for initial implementation, combined with the incorporation of small custom service components will result in the shortest duration to full-benefit realization, the lowest system delivery cost and the lowest ten-year total cost of ownership.

The rationale for the proposed technical solution, a New System Buy/Build approach will deliver all the needed critical functionality in two releases.

- The first release will provide core system capabilities that provide at-a-minimum what is available in the current system. Delivery of these replacement core capabilities will allow decommissioning of the existing CWS/CMS system and over 100 external systems throughout the State.

- The second release will provide practice enhancements that were not implemented in the current CWS/CMS, as well as required capabilities that result from changes in law, policy and practice between initiation of the system development and initiation of the second release.

The following table identifies how the proposed selection will meet each of the problem/objective elements identified in Section 3.2.2 – Problem/Opportunity Assessment. This table identifies how each of the identified Problem/Opportunity elements will be satisfied by the Buy/Build technical solution.

Table 5-13 - Technical Solution to Identify Problem/Opportunity Elements

Problem	Opportunity	Technical Solution
Resource Utilization	Enhance Data Entry Through Improved Navigation Design	The navigation design issue with the current system will be addressed in the new system through a combination of the delivered (possibly configurable) user interface in the purchased product, in concert with the orchestration and workflow capabilities of the SOA environment.
	Enhance Interactions/Information Exchanges Through Automated Workflow Management	Automated workflow will be delivered through the workflow capabilities of the SOA environment.
System Access	Enhance CWS worker System Access Through Provision of Mobile Capabilities	The new system will be web-based and hosted through a centralized computing environment. In its simplest form, system access will be possible from any computing device that has both a web-browser and an internet connection. Some policy restrictions may exist for some users that will require access through a county POP.
	Enhance Service Organization and Service Provider Access to System Information	The new system will be web-based and hosted through a centralized computing environment. In its simplest form, system access will be possible from any computing device that has both a web-browser and an internet connection. These users will

Problem	Opportunity	Technical Solution
		be considered to be "external" users and will most likely be restricted to access through a portal.
Information Exchange Interfaces	Enhance Collaborative, Bi-Directional Information Exchange Capabilities	Bi-directional information exchange interfaces are expected to be provided through the use SOA "adapters" (which will require MOAs and external system access rights to the source system).
Business Collaboration	Enhance Support Service Collaboration Capabilities	In addition to the information exchange interfaces described above, automation services such as email-based calendaring and virtual meetings (i.e., Adobe Connect) will be provided with the new system to these external users.
Outcome-Driven Planning, Management and Assessment	Enhance Safety and Risk Assessment Capabilities	A single, integrated safety and risk assessment service will be delivered in the purchased product or will be provided through a custom service.
	Enhance Tracking and Communication with the family and juvenile courts	This will be accomplished through an information exchange interface and with the business collaboration capabilities.
SACWIS Compliance	Provide Adoptions Case Management Capabilities	This will be provided through one or more custom services.
	Enhance Eligibility Determination	This will be provided through one or more custom services.
	Provide Missing Required Information Exchange Interfaces	Refer to the Information Exchange Interfaces definition above.
	Provide Missing Financial Management Capabilities	Provide Missing Financial Management Capabilities

The CAST also conducted two RFIs to validate the feasibility of the Buy/Build approach. Vendor responses from the second RFI substantiated viable solutions in the

marketplace that can support this approach. Of the 1,120 total capabilities required for the CWS-NS, vendors stated that their solution could provide 70 to 84 percent of the capabilities straight out-of-the-box. The missing capabilities or gaps that require the development of custom services ranged from 13 to 30 percent. Except for one vendor, the no responses were very low, essentially ranging from one to two percent. For further details, refer to Appendix K, Validation of the Buy/Build Feasibility.

The following are the benefits and challenges that may impact the selection of the proposed solution:

Benefits

- The proposed solution is best when a majority of business needs can be delivered with a fully-developed existing product, greatly shortening delivery of needed business value.
- The use of the buy/build approach provides maximum flexibility.
- Delivery of a service(s) can be prioritized and sequenced to best align with business goals, needs and objectives.
- Because the functionality of the pre-existing product will not contain any customization, vendor-initiated upgrades to provide new functionality and/or address defect correction can be implemented with minimal impact to the system operations.

Challenges

- A very high number of requests for the development of custom services can result in excessive delays in delivery of this alternative.

5.3 Other Alternatives Considered

The proposed Buy/Build alternative was compared against three other alternatives: 1) CWS/CMS Upgrade, 2) Re-start the CWS/Web, and 3) build a new system using a custom approach. All four alternatives have varying project lifecycles and costs for all alternatives were extended through one full year following full implementation. Please refer to Exhibit M – Ten Year EAWs for cost figures provided in this section.

In the table below, project one-time costs are shown for all four alternatives. As indicated below, the proposed solution Buy/Build has the lowest ten-year total project one-time costs.

Table 5-14 - Comparison of One-Time Project Costs

Alt P	Alt 1	Alt 2	Alt 3
Buy/Build	CWS/CMS Upgrade	Re-start CWS/Web	New System Custom
$352,016,727	**$474,197,418**	**$584,352,784**	**$460,340,097**

The Buy/Build alternative also begins payback of $60.0 million a year in 2018-19 as compared to the New System Custom of $35.0 million in 2018-19; CWS/CMS Upgrade of $12.6 million in 2020-21; and the Re-start CWS/Web of $18.7 million also in 2020/21.

Please refer to Section 8 – Economic Analysis Worksheets under the SUM tabs.

5.3.1 Upgrade the Existing CWS/CMS

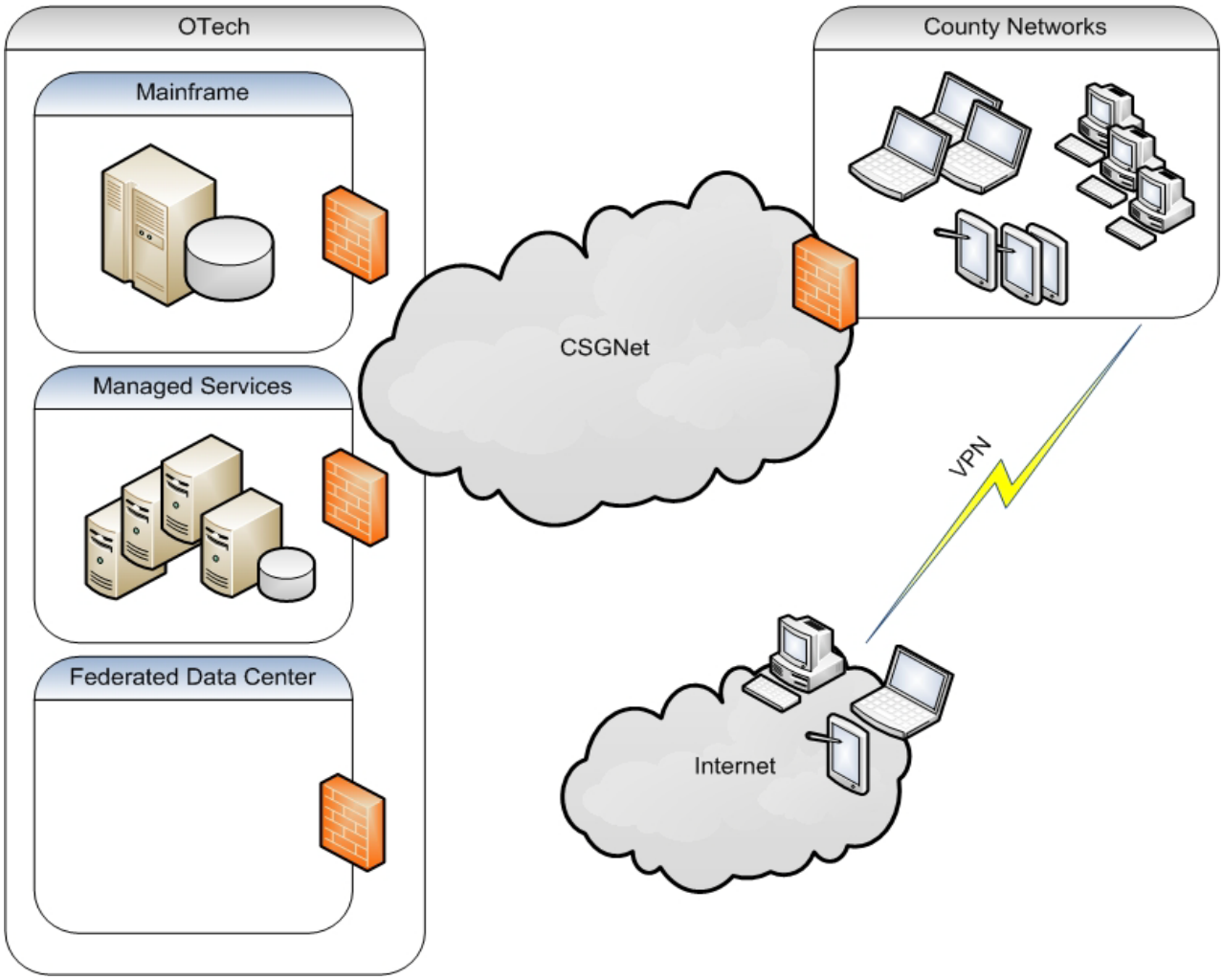
This alternative is focused on upgrading the current CWS/CMS to Web-based technologies. The existing thick client will be upgraded to a browser-based thin client and converted to n-tiered architecture. Enhancements and updates will have to be planned and delivered after the upgrade is completed and stabilized. The distributed application servers will be centralized to a Web-based application server(s) co-located with the IBM mainframes supporting the DB2 database.

This alternative will:

- Upgrade CWS/CMS client code to Web-based technologies.
- Migrate from 200+ application servers to a central Web-based application server hardware/software environment at the State Data Center.
- Utilize the existing CICS/COBOL/DB2 code base.
- Add and enhance critical functionality after the initial upgrade is completed and the application is stabilized.

Figure 16 – CWS/CMS Upgrade – Technical Environment, illustrates the architecture of this alternative, showing that the thick client has been replaced with a Web browser. The distributed application servers have been removed from the counties, and the IBM mainframe and DB2 database have been retained, but only to support the database. Access to the Web-based application server(s), IBM mainframe, and DB2 database are only supported across CGen and county WANs.

Figure 15 – CWS/CMS Upgrade – Technical Environment



5.3.1.1 Technical Description

The scorecard shown above depicts how well this alternative scored for each evaluation factor and its overall score as a percentage. The icon shows the percent to which the alternative met the needs of the evaluation category (zero, quarter-, half-, three quarters- or fully-met).

Scorecard	
Business	◑
Technical	◔
SACWIS	◑
Time	◑
Cost	◑
Risk	◑
50 percent overall score	

Table 5-15 – CWS/CMS Upgrade – Scorecard

Using this alternative, the process of upgrading the CWS/CMS technical infrastructure will evolve over time. Changes to the existing application and systems architecture will only be made to meet critical operational requirements, such as changing the security model to accommodate new user types or modifying an existing interface. The reporting architecture will leverage the existing data reporting capability. All counties with adequate technical infrastructure and support resources (typically coexistent counties) can deploy a data mart fed by the data warehouse. Counties without adequate technical infrastructure and support resources will access the data warehouse directly for their day-to-day operational reporting needs. The enhanced data warehouse will serve all county and state users for analytical reporting, data mining, and/or ad-hoc reporting. The potential retention of the CWS/CMS application architecture, IBM mainframe, and DB2 database as back-office infrastructure introduces a risk that users will be impacted by upgrades occurring in a production environment

To re-host and upgrade the existing client-based user interface, business logic, and database interface will require extensive requirements specification/validation, analysis, and design prior to initiation of the build phase of the lifecycle.

The upgrade of CWS/CMS will result in:

- Replacement of the existing client with a Web browser.
- Re-host of the existing client-based user interface, business logic and database interface into n-tiered architecture.
- Development and delivery of critical functionality.
- Consolidation of the distributed application server architecture.
- Retention of the IBM mainframe.
- Retention of the existing CICS/COBOL/DB2 code base.
- Retention of application access through:
    - CGen (via VPN).

- County LAN and the CGen.
- Direct connection to the CGen.
- Wireless connection to a county LAN and/or the CGen.

Critical functionality that must be available for DD&I - Phase 1 can be developed separately from the major re-host effort (therefore not impacting its schedule) and deployed at the same time. Less-critical functionality will be prioritized, sequenced, and scheduled for inclusion in post-deployment enhancement releases.

5.3.1.2 Costs

The total project costs for the CWS/CMS Upgrade alternative are estimated to be $828,603,307 and consist of One-Time IT Project costs and Continuing IT Project costs from SFY 2013-14 through SFY 2022-23.

The estimated One-Time IT Project costs of $458,321,418 consist of project staffing (including OE&E), solution hardware and software, all vendor and county contracts including the SI, OCM services, data center services, and agency facilities. With approved FFP of 50 percent, the total One-Time IT Project costs to the SGF are estimated to be approximately $229,160,709, incurred between SFY 2013-14 and through the second quarter of 2019-20.

Total Continuing IT Project costs are estimated at $195,164,935 after full implementation. With approved FFP of 50 percent, the Continuing IT Project costs are estimated to be approximately $65.0 million annually. This equates to a savings of roughly $17.0 million per year compared to maintaining the existing system.

Please refer to Section 8 – Economic Analysis Worksheets for the fiscal year and line item cost details of the Alternative #1 CWS/CMS Upgrade.

5.3.1.3 Benefits

- Offers minimal impact to end users.
- Requires no data conversion.
- Replaces the thick client with a Web-browser-based thin client, allowing for access anywhere, anytime.
- Allows incremental functionality enhancements (based on budget and priorities) after DD&I Phase 1.
- Removes the operational cost of periodic refreshes of 200+ distributed application servers.
- Removes the operational cost of special workstation images to run the client software.
- Centralized application server(s) can be managed at the State Data Center.

- Results in an improved maintenance lifecycle due to single-point enhancement/ upgrade deployment on the centralized application server(s).

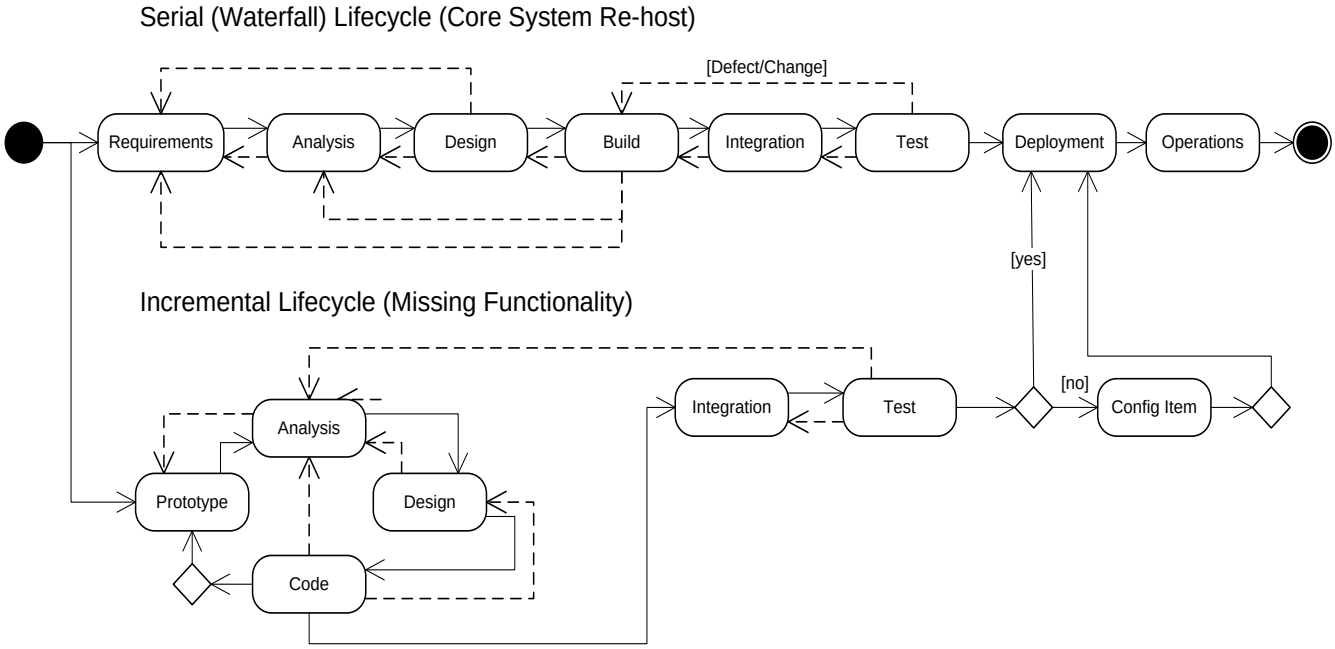
5.3.1.4 Challenges

- Offers only restricted use of the Web browser, as a thin client, to the State's intranet. (This does not provide internet capabilities.)
- Retains the operation and maintenance costs associated with the IBM mainframe and DB2 database.
- May require greater day-to-day performance management because of increased infrastructure complexity.
- Interface to partner systems is batch, which does not provide real-time information.

- **Methodology**

The CWS/CMS Upgrade alternative will require two separate development lifecycles. Because of the complexity (which includes a new architecture) and the number of partner dependencies associated with the initial upgrade of the CWS/CMS client to Web technologies, this release will be executed using a separate serial-development lifecycle. Once DD&I - Phase 1 has been completed, a new incremental-development lifecycle approach will apply to developing the new and enhanced functionality that was not present in CWS/CMS.

Figure 16 – CWS/CMS Upgrade – Lifecycle Methodology



A detailed discussion on the approach to be taken for the CWS/CMS Upgrade can be found in Appendix B – Project Management Plan.

- **Business assessment**

This alternative is focused on upgrading the existing CWS/CMS to web-based technologies. Users will be provided access to the existing CWS/CMS via the county intranet. Remote access will continue to require the use of tokens and virtual private networks to access the county intranet to log on. Identified critical functionality and modifications to existing functionality will be prioritized, sequenced, and scheduled for inclusion in future enhancement releases after the upgrade is completed and stabilized.

This alternative leverages existing business infrastructure with the least disruption to business operations. As it involves minimal changes to the appearance and navigation of the application, users will require minimal training regarding changes. New functionality will require user training as it is implemented. The existing training infrastructure will be used for statewide training.

The stakeholder community identified that the functionality needed to support critical CWS operations and the length of time to delivery are their highest priorities when considering technical alternatives. This alternative is one of the slower to deliver benefits. This alternative also retains a number of existing constraints that will continue to impede usability and effective case management practice, such as the ease-of-use problems with navigation, the multiple inefficient reporting solutions, the limited mobile access, and the lack of role-based access. These constraints limit the ability to implement the self-service functionality as envisioned to allow CWS community partners to view and enter data.

Although the intent is to implement critical functionality and to modify existing problem functionality, it will be difficult to implement some of the functionality as preferred or optimal to support CWS practice.

This alternative does not have the ability to support real-time interfaces with other systems. It may also be difficult, due to the continuation of the existing environment and its limitations, to support all the identified interfaces.

The continuance of this constrained CWS/CMS alternative will result in California CWS dependence upon external vendors such as Sphere, CRC, University of California at Davis and Social Solutions for application and reporting services.

This alternative does not support the needs of CWS practice.

- **SACWIS**

This alternative may accommodate the State’s commitment to fulfilling SACWIS functional requirements. The delay increases the risk of suspension of SACWIS funding.

This alternative’s limitations will result in the maintenance of existing external systems and creation of new systems to support CWS practice, which will jeopardize SACWIS compliance.

- **Timeline**

The timeline to upgrade the existing CWS/CMS has been provided with a focus on the procurement, development, and deployment phases of the alternative.

- **Procurement**

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Figure 17 - CWS/CMS Upgrade – Procurement Duration

Key Dates/Tasks	Develpp RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Prepare Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	9.00	1.00	1.00	2.00	0.25	0.25	0.00	1.00	0.50	3.00	3.00	0.50	1.00	2.00	3.00	1.00		3.00			31.50

- **Development – Phase 1**

The following table identifies the system and business function capabilities that will be delivered in DD&I - Phase 1.

Table 5-16– CWS/CMS Upgrade – Initial System and Business Functionality

System	Business Function
Application Architecture	Intake Management
Infrastructure	Case Management - Service / Case Plan
Data Conversion (external systems only)	Case Management - Review, Evaluation, Monitoring
Workflow	Court Processing
System Security	Administration
General Functionality	Resource Management
Other Functionality	Quality Assurance
Interfaces	

- **Development – Phase 2**

The following table identifies the business function capabilities that will be delivered in DD&I - Phase 2.

Table 5-17 – CWS/CMS Upgrade – Future System and Business Functionality

System	Business Function
	Adoptions
	Financial Management
	Eligibility
	Critical Functionality Matrix
	New Law, Regulation or Policy capabilities

- **Deployment – Phase 1**

Because this alternative will utilize a centralized architecture and retain the existing workstation software characteristics (look-and-feel), the existing IBM mainframe and DB2 database, and workstation access only requires a Web browser, deployment will be instantaneous to all users the moment that the system comes online. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution) and for decommissioning previously-distributed architecture components.

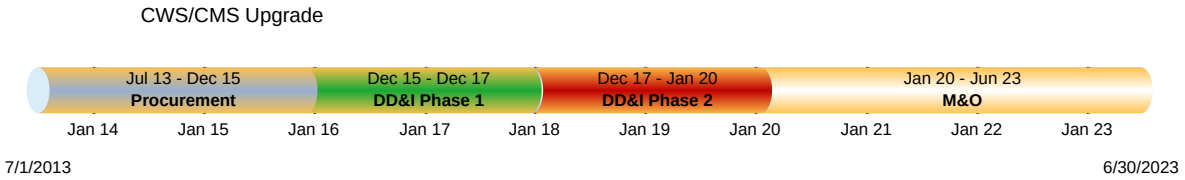
- **Deployment – Phase 2**

Like DD&I - Phase 1, deployment will be instantaneous to all users the moment that DD&I - Phase 2 business function is deployed. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution).

- **State Fiscal Year (SFY) Allocation**

The following figure shows how the procurement, development and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 18 – CWS/CMS Upgrade – Timeline



- **Risks**
  - Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and solution delivery date.

- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Unanticipated tasks associated with the complexities of upgrading the existing system may require additional funding.
- Maintenance costs for the existing system may continue to increase over time and may become cost-prohibitive.
- Inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.
- Operating with a hybrid of old and new technologies may not lower ongoing costs.
- Policy, regulation, and legislative changes during Design, Development and Implementation (DD&I) may delay the delivery date of the solution and increase costs.

5.3.2 **Restart the CWS/Web Project**

This alternative will utilize the existing CWS/Web RFP documents and requirements without modification to procure and develop a services-oriented Web-services-based architecture and replacement system for CWS/CMS. A new procurement will begin with the re-release of the CWS/Web RFP. All functionality, including the unfulfilled SACWIS technical requirements and integration of the external systems, will be available to users through a Web browser.

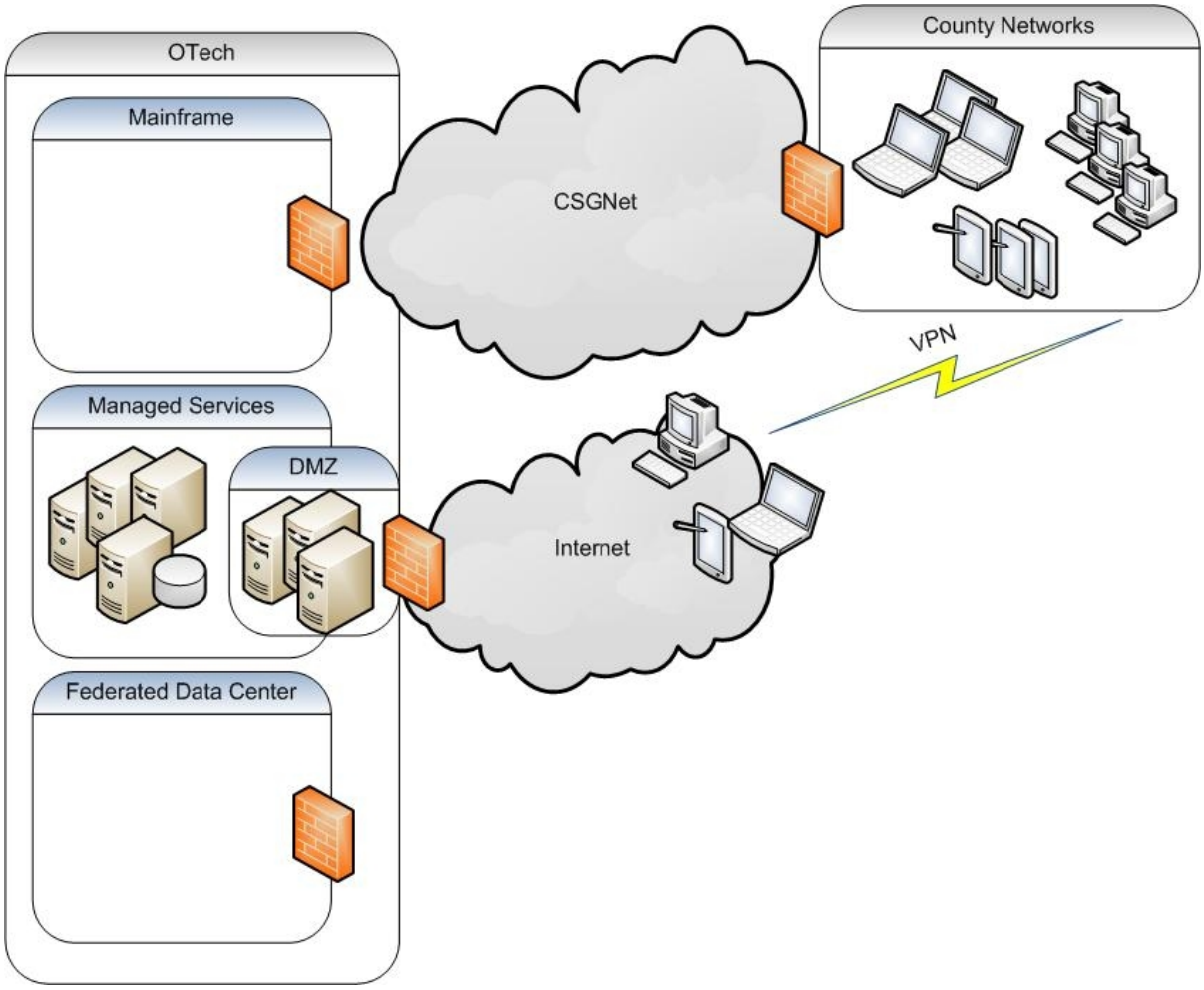
The approach to restarting CWS/Web will:

- Replace distributed computing architecture (servers and software) with centralized components that integrate the Web, the system logic and the database.
- Deliver an architecture based on Web technologies;
- Establish a SOA and support future collaboration with (interfaces to) other systems or services.
- Ensure a browser-based client (delivery of mobility).
- Develop and deliver data exchange interfaces to support interagency information sharing.
- Consolidate existing and external data sources into a single repository.
- Add missing business functionality.
- Enhance business functionality that is operationally insufficient.

The development and deployment of all functionality with this approach will occur over a period of three years. Deployment will occur in the fourth year, using an incremental geographical deployment.

The Restart CWS/Web – Technical Environment figure below illustrates the basic architecture that restarting CWS/Web will utilize. For the user, whether residing at a county, in a state office building or operating outside of the traditional office environment, the sole requirement for system access is a Web browser. Access to centralized application components will depend on the user location and method of connectivity (wireless, wired, Virtual Private Network). The computing infrastructure will be server-based and managed by the State Data Center.

Figure 19 – Restart CWS/Web – Technical Environment



5.3.2.1 Technical Description

CWS/Web will enable the State and counties to connect to the system and interact via Web-standards-based mechanisms. Restarting CWS/Web will facilitate secure access to the application for any authorized user. The architecture will accommodate custom views and impose county-specific workflow preferences.

CWS/Web will provide interoperability between applications and processes, utilizing Web services and messaging components. This leverages other related technologies, providing an architectural framework similar to traditional distributed communications paradigms such as Common Object Request Broker Architecture (CORBA). Service-publication mechanisms allow client applications to discover, locate and invoke Web-service components dynamically.

CWS/Web will be based on an architecture lending itself to the integration of external systems and the rapid development of new services. The system will be adaptable and extensible. Components will be designed in a loosely-coupled fashion to be interchangeable with other external components of similar functionality with limited change to the overall solution.

As an adaptable service-oriented architecture, CWS/Web will provide application development and deployment facilities to allow applications to be integrated and deployed using existing services. The system will allow new services to be created and made available without modification of existing application structures.

Scorecard	
Business	●
Technical	◕
SACWIS	◕
Time	◑
Cost	◑
Risk	◕
75 percent overall score	

Table 5-18 – Restart CWS/Web – Scorecard

5.3.2.2 Costs

The total project costs for the Restart CWS/Web alternative are estimated to be $803,095,671 and consist of One-Time IT Project costs and Continuing IT Project costs from SFY 2013-14 through SFY 2022-23.

The estimated One-Time IT Project costs of $565,484,118 consist of project staffing (including OE&E), solution hardware and software, all vendor and county contracts including the SI, OCM services, data center services, and agency facilities. With approved FFP of 50 percent, the total One-Time IT Project costs to the SGF are estimated to be approximately $282,742,059, incurred between SFY 2013-14 and through the second quarter of 2020-21.

Total Continuing IT Project costs are estimated at $53,967,805 annually after full implementation. With approved FFP of 50 percent, the Continuing IT Project costs are estimated to be approximately $28.5 million annually. This equates to a savings of roughly $53.4 million per year compared to maintaining the existing system.

Please refer to Section 8 – Economic Analysis Worksheets for the fiscal year and line item cost details of the Alternative #2 Re-Start CWS/Web.

5.3.2.3 Benefits

- The system is planned, specified, designed and documented before any development begins.
- System specifications are very detailed and focus on maximum delivery of business value (aligned with need, law, policy and practice).
- System architecture is aligned with immediate business needs and long-range business objectives.
- SOA and Web technology frameworks facilitate system extensibility and interagency information sharing.
- The use of "services" (loosely coupled units of functionality that individually implement one action) results in:
    - Minimal development time.
    - Simplified maintenance.
    - Isolation of upgrade/enhancement impacts to the service itself.
    - Simplified testing.
    - Maximum potential reuse.

5.3.2.4 Challenges

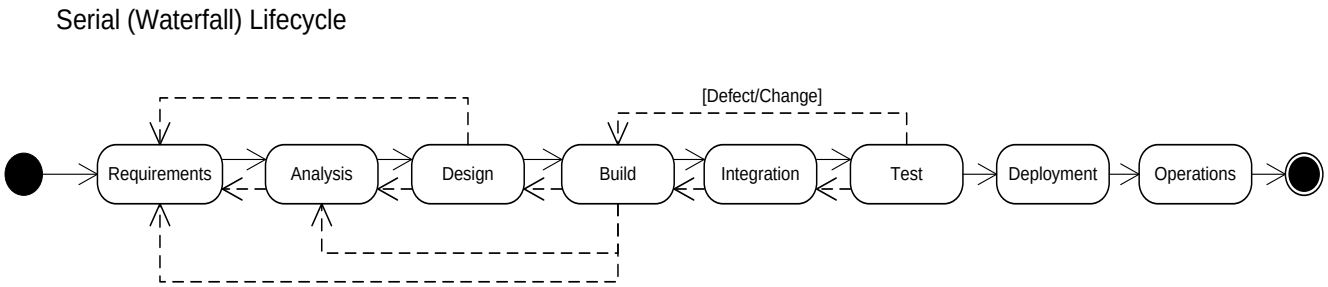
- Relies heavily on written communications between lifecycle phases.
- Integration, system, and acceptance testing cycles are executed after services are fully developed.
- It is difficult to determine the status of product development beyond the status of individual phases.
- The timing of testing makes defect correction more costly and time-consuming, and may delay the delivery of the system because of re-work complexity.
- Issues (what was missed) are often not identified until the test phase.
- The single, complete-system delivery model greatly delays delivery of business value.
- The heavily front-end loaded development lifecycle, involving (complete) system analysis, specification, design, and documentation, results in increased staffing costs and delayed return on investment, as measured by delivery of business value.

- Actual service (functionality) costs are very hard to determine because there is little or no cost segmentation within an individual phase.

- **Methodology**

Requirements for the CWS/Web Restart alternative will be determined at the beginning of the development effort and can be changed only thereafter through application of a very structured change-management process.

Figure 20 – Restart CWS/Web – Lifecycle Methodology



Details of the approach to be taken for restarting CWS/Web can be found in Appendix B – Project Management Plan.

- **Business Assessment**

This alternative will utilize existing CWS/Web RFP documents without modification to procure and develop a replacement system for CWS/CMS. It provides for utilization of CWS/Web RFP requirements that have already been defined, approved, and documented. The CWS/Web RFP requirements include, at a minimum, the critical functionality required for SACWIS and CWS practice. A new procurement will start, re-releasing the CWS/Web RFP to result in development of a new custom application utilizing a Web-services-based architecture. This alternative will continue to utilize CWS/CMS while simultaneously developing the new system, CWS/Web.

This alternative resolves existing navigation, performance, and database-concurrency issues. It reduces duplicate data-entry efforts, and improves data quality and program management reports. It provides for timely implementation of functional changes and increased mobility. As noted in the TAAA report, counties have consistently voiced that the missing SACWIS functionality is a critical part of the capability needed to enhance the ability of CWS workers to provide essential services to children at risk. This alternative serves to meet those business needs.

A CWS worker's responsibilities are working with at-risk children and families, often outside of an office setting. With restarting CWS/Web, mobile access to the system will allow users to retrieve, enter and upload client information from most locations.

This alternative will provide users with better system navigation and ease of data entry. Role-based access will provide the ability to limit and control system access to appropriate parties. Not only will role-based access help CWS workers by allowing them

access only to the information they need to do their job, but it will allow them to work collaboratively with community partners. An example is Differential Response, where an external user (e.g., service provider) can have access to the system. The service provider will have a more limited access to the system and be limited as to what information they can enter. This alternative also supports multidisciplinary case management, where CWS workers collaborate with community-based partners.

Workflow functionality will help CWS workers in their daily activities by generating forms automatically and generating tasks or reminders when needed.

Restarting CWS/Web will allow counties the freedom to maintain their own computers and equipment. This alternative will not require counties to sustain existing levels of equipment and may help reduce their costs for maintaining the system.

This is a new solution that will require statewide implementation training. Due to the fact that the system can be accessed through the Internet, training labs can be easily set up in multiple locations.

This alternative will allow for the implementation of all interfaces as identified in the CWS/Web RFP. This supports the data exchange of client information and the ability for the information to be associated to the client. (One example is a potential interface with the California Department of Child Support Services system.) CWS workers will be able to obtain information critical to investigation and case planning, such as location information and other client-specific information. This alternative will also support the ability to accept real time information from interface partners.

This alternative will support the ability to display views of data for case review. Types of case reviews may include:

- State technical assistance and monitoring
- Court
- Federal reporting
- Eligibility
- Financial management
- Title IV-E audits
- Federal reporting tools

Data integrity will be supported as client data is entered into the system. This alternative will create a framework upon which an improved reporting solution can be built by providing more comprehensive and accurate data, which translates into more timely and improved reporting. It will streamline data collection and improve the ability to report performance measures over time. Improved reports, such as outcome and data accountability reports, will assist CDSS in turn in the production of the following types of reports and documents:

- State legislative reviews and data requests

- Child and Family Services Review (CFSR)
- Annual Progress and Services Review (APSR)
- AFCARS
- NYTD
- NCANDS
- Relative/ Non-Relative Extended Family Members (NFREM) Review
- IV-E Adoptions Assistance Review

This alternative offers one of the better solutions to support CWS practice.

- **SACWIS**

This alternative will obtain SACWIS compliance.

CWS/Web has been approved and funded at SACWIS FFP levels, subject to ongoing review, by ACF. ACF has agreed to continue SACWIS FFP for both development of CWS/Web and ongoing operation of CWS/CMS, pending implementation of CWS/Web. The current state suspension of CWS/Web may reduce ACF support for continuing SACWIS FFP due to the additional delay over the original approved timeframes. However, to date, ACF remains supportive of California's reassessment process and is unlikely to suspend SACWIS FFP for either CWS/CMS operation or new system planning. Consequently, the state and county share of cost is not likely to increase due to a reduction of FFP.

- **Timeline**

The timeline for the CWS/Web Restart has been provided with a focus on the procurement, development and deployment phases of the alternative.

- **Procurement**

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Figure 21 - Restart CWS/Web – Procurement Duration

Key Dates/Tasks	Develop RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	1.00	0.00	0.50	1.00	0.00	0.25	0.00	0.50	0.50	3.00	4.00	0.50	1.00	3.00	4.00	1.00		3.00			23.25

- **Development – Phase 1**

The following table identifies the system and business function capabilities that will be delivered in DD&I - Phase 1.

Table 5-19 – Restart CWS/Web – Initial System and Business Functionality

System	Business Function
Application Architecture	Intake Management
Infrastructure	Case Management - Service / Case Plan
Data Conversion (external systems only)	Case Management - Review, Evaluation, Monitoring
Workflow	Court Processing
System Security	Administration
General Functionality	Resource Management
Other Functionality	Quality Assurance
Interfaces	Adoptions
Reporting	Financial Management
	Eligibility

- **CWS/CMS Decommissioning**

The existing CWS/CMS will be decommissioned after delivery of Development - Phase 1.

- **Development – Phase 2**

The following table identifies the business function capabilities that will be delivered in Development - Phase 2.

Table 5-20 – Restart CWS/Web – Future System and Business Functionality

System	Business Function
	Critical Functionality Matrix
	New Law, Regulation or Policy capabilities

- **Deployment – Phase 1**

This approach will utilize an entirely new SOA architecture and workstation access will require only a Web browser. Due to the new architecture (decommissioning the existing CWS/CMS), user interface characteristics will change to accessibility being possible with a Web browser only. With these changes and the addition of new capabilities (mobility and workflow), deployment will be executed in three sequential increments. The first deployment will occur over four months, the next over another period of four months, and the last deployment over a period of six months. County assignment to an increment will be determined during deployment increment planning.

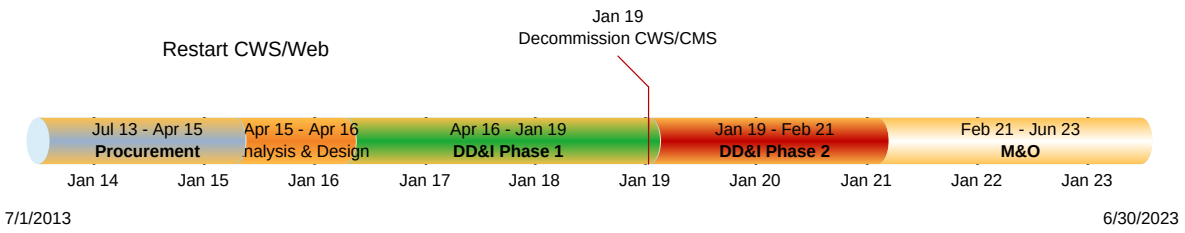
- **Deployment – Phase 2**

Like Deployment - Phase 1, the Phase 2 deployment will be executed in three sequential increments. The first deployment will occur over four months, the next over another period of four months, and the last deployment over a period of six months.

- **State Fiscal Year (SFY) Allocation**

The following figure shows how the procurement, development, and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 22 – Restart CWS/Web –Timeline



- **Risks**
  - Existing CWS/CMS system costs may continue to increase while the CWS/Web solution is being developed.
  - Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
  - Policy, regulation, and legislative changes during DD&I may delay the delivery date of the solution and increase costs.
  - Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and solution delivery date.
  - Unanticipated tasks associated with the complexities of upgrading the current system may require additional funding.
  - The inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.

5.3.3 Build a New Custom System

5.3.3.1 Technical Description

This option will result in a complete new custom system development effort using none of the existing CWS/CMS application elements. Web technologies and layered architecture will separate the user interface, the application logic and the data. Existing operational business data will be (1) extracted, transformed (as applicable), and loaded into a new database, (2) hosted in a new database engine, and (3) reside on a new database server.

The system can be deployed either:

- As a single complete system by establishing an interim "configuration item" for each service after the test phase, and then releasing all configuration items at once.
- In increments after each service completes its test phase, either to the production environment as a new component/service, or to a sandbox environment for user training, evaluation, and/or practice use.

Scorecard	
Business	●
Technical	●
SACWIS	●
Time	◕
Cost	◕
Risk	◕
87 percent overall score	

Table 5-21 – New System – Custom Approach – Scorecard

5.3.3.2 Costs

The total project costs for the New System Custom alternative are estimated to be $778,969,417 and consist of One-Time IT Project costs and Continuing IT Project costs from SFY 2013-14 through SFY 2022-23.

The estimated One-Time IT Project costs of $443,959,430 consist of project staffing (including OE&E), solution hardware and software, all vendor and county contracts including the SI, OCM services, data center services, and agency facilities. With approved FFP of 50 percent, the total One-Time IT Project costs to the SGF are estimated to be approximately $221,979,715, incurred between SFY 2013-14 and through the second quarter of 2020-21.

Total Continuing IT Project costs are estimated to be $248,714,025 after full implementation. With approved FFP of 50 percent, the Continuing IT Project costs are estimated to be approximately $49.7 million annually. This equates to a savings of roughly $32.0 million per year compared to maintaining the existing system.

Please refer to Section 8 – Economic Analysis Worksheets for the fiscal year and line item cost details of the Alternative #3 New System Custom Approach.

5.3.3.3 Benefits

- Easier to reprioritize increment content/sequence as objectives change.
- Easier to provide frequent demonstration of progress to stakeholders because product segments/functional services will evolve within the increment.
- Smaller scope increments provide flexibility and management of cost when changes to scope and/or requirements are needed.
- Testing occurs informally throughout the increment's product development activities (prototype, analysis, design, and code) and formally as final acceptance activity before deployment, resulting in fewer late-cycle defects.

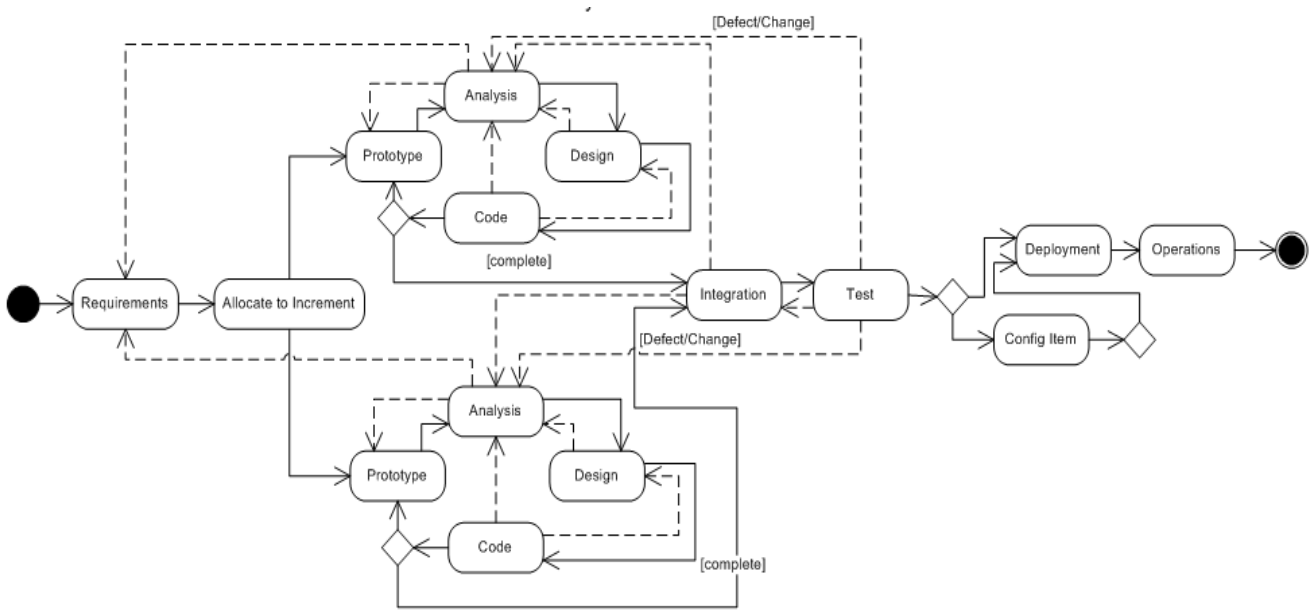
5.3.3.4 Challenges

- Requirements changes may be higher than anticipated because of incomplete, misunderstood, or incorrectly communicated needs or expectations.
- Functional scope and/or complexity may be more than can be completed within the time-box.
- Estimation of the number and duration of increments may result in reprioritization and sequencing, causing schedule delays.

- **Methodology**

The following diagram shows a custom development lifecycle with two increments, for illustrative purposes. In actual use, the number of increments will be as many as required to complete the objectives where the lifecycle is used.

Figure 23 – New System – Custom Approach – Lifecycle Methodology



Details of the approach to be taken for a custom system development can be found in Appendix B – Project Management Plan.

- **Business Assessment**

This alternative can leverage the existing CWS/Web RFP documents and requirements as a starting point for creating a new system. It provides the opportunity to reassess today's current business practice and legislative needs and incorporate these into the new system.

This alternative provides for a new custom-built application utilizing Web-services-based architecture that meets SACWIS functional requirements. This alternative continues to utilize CWS/CMS while simultaneously developing the new solution. It resolves existing navigation, performance, and database concurrency issues. It reduces duplicate data entry efforts and improves data quality and program management reports. This alternative uses a flexible approach that easily accommodates the addition of new functionality (e.g., requirements discovered during design or mandated by legislation) at a potentially lower cost than the Restart CWS/Web alternative. It provides for the timely implementation of functional changes and increased mobility.

A CWS worker's responsibilities are working with at-risk children and families, often outside of an office setting. With this alternative, mobile access to the system will enable client data entry, upload and retrieval from most locations.

This alternative will provide users with better system navigation and ease of data entry. Role-based access will provide the ability to limit and control system access to appropriate parties. Not only will role-based access help the CWS workers by allowing them access only to the information they need to do their job, but it will allow CWS workers to work collaboratively with community partners. An example is Differential Response, where an external user (e.g., service provider) can have access to the system. The service provider will have a more limited access to the system and be limited as to what information they can enter. This alternative also supports multidisciplinary case management, where CWS workers collaborate with community-based partners.

Workflow functionality will help CWS workers in their daily activities by generating forms automatically and generating tasks or reminders when needed.

This alternative will allow counties the freedom to maintain their own computers and equipment. This alternative will not require counties to sustain existing levels of equipment and may help reduce their costs for maintaining the system.

This is a new solution that will require statewide implementation training. Because the system will be accessible through the Internet, training labs can be easily set up in multiple locations.

This alternative will allow for the implementation of all interfaces listed in the Critical Functionality spreadsheet, and support the data exchange of client information and the ability for the information to be associated to the client. (One example is a potential interface with the California Department of Child Support Services system.) CWS will be able to obtain information critical to investigation and case planning, such as location

information and other client specific information, and be able to receive real-time information from interface partners.

This alternative supports the ability to display views of data for case review. Types of case reviews may include:

- State technical assistance and monitoring
- Court
- Federal reporting
- Eligibility
- Financial management
- Title IV-E audits
- Federal reporting tools

Data integrity will be supported as client data is entered into the system.

This alternative will create a framework upon which an improved reporting solution can be built by providing provide more comprehensive and accurate data, which translates into more timely and improved reporting. It will streamline data collection and improve the ability to report performance measures over time. Improved reports, such as outcome and data accountability reports, will assist CDSS in the production of the following types of reports and documents:

- California CSFRII
- APSR
- AFCARS
- NYTD
- NCANDS
- Relative NFREM Review
- IV-E Adoptions Assistance Review

This alternative offers one of the better solutions to support CWS practice.

- **SACWIS**

This alternative can achieve SACWIS compliance. The development technique of designing and using system functionality components during the development process will facilitate SACWIS compliance by the final product. Quicker implementation and a higher level of user acceptability at the end of the design phase will increase the likelihood of full utilization and complete functionality at the point of the formal federal compliance review. Consequently, ACF is less likely to suspend or require payback of SACWIS FFP for CWS/CMS and the new system development under this alternative. This alternative may also be more flexible, in that if ACF reduces SACWIS requirements, it will be easier to halt work on increments that are no longer needed.

However, any delay in developing functionality increments will cause greater overall delay, risking an increase in state/county share of cost for both CWS/CMS and the new system if SACWIS FFP is suspended as a result.

- **Timeline**

The timeline to build a new custom CWS system has been provided with a focus on the procurement, development and deployment phases of the alternative.

- **Procurement**

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Figure 24 - New System – Custom Approach – Procurement Duration

Key Dates/Tasks	Develpp RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Prepare Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	9.00	1.00	1.00	2.00	0.25	0.25	0.00	1.00	0.50	3.00	3.00	0.50	1.00	2.00	3.00	1.00		3.00			31.50

- **Development – Phase 1**

The following table identifies the system and business function capabilities that will be delivered in Development - Phase 1.

Table 5-22 – New System – Custom Approach – Initial System and Business Functionality

System	Business Function
Application Architecture	Intake Management
Infrastructure	Case Management - Service / Case Plan
Data Conversion (external systems only)	Case Management - Review, Evaluation, Monitoring
Workflow	Court Processing
System Security	Administration
General Functionality	Resource Management
Other Functionality	Quality Assurance
Reporting	

- **CWS/CMS Decommissioning**

The existing CWS/CMS will be decommissioned after delivery of Development - Phase 1.

- **Development – Phase 2**

The following table identifies the business function capabilities that will be delivered in Development - Phase 2.

Table 5-23 – New System – Custom Approach – Future System and Business Functionality

System	Business Function
	Adoptions
	Financial Management
	Eligibility
	Interfaces
	Critical Functionality Matrix
	New Law, Regulation or Policy capabilities

- **Deployment – Phase 1**

Because this approach utilizes a centralized architecture and workstation access requires only a Web browser, deployment will be instantaneous to all users the moment that the system comes online. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution) and decommissioning of the previously distributed architecture components.

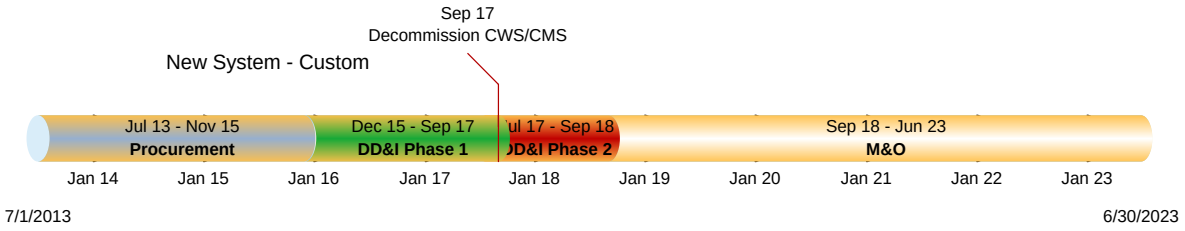
- **Deployment – Phase 2**

Like Deployment - Phase 1, the Development – Phase 2 deployment will be instantaneous to all users the moment that phase 2 business function is deployed. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution).

- **State Fiscal Year (SFY) Allocation**

The following figure shows how the procurement, development and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 25 – New System – Custom Approach – Timeline



- **Risks**

- Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and delivery date of the solution.
- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Policy, regulation, and legislative changes during DD&I may delay the delivery date of the solution and increase costs.
- Existing CWS/CMS system costs may continue to increase while the new system is being developed.
- Unanticipated tasks associated with the complexities of upgrading the current system may require additional funding.
- The inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.

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6 Project Management Plan

The purpose of the Project Management Plan (PMP) is to provide project management, project staff, and project stakeholders with an approved working guide that details how the CWS-NS Project activities and deliverables will be managed throughout the project lifecycle phases. The PMP is the plan that facilitates integration management on the CWS-NS Project. As described in the Project Management Body of Knowledge (PMBOK®) framework, integration management includes the processes required to ensure the various elements of the project are properly coordinated. Integration management involves making tradeoffs among competing objectives and alternatives in order to meet or exceed stakeholder needs and expectations. Integration management is a key aspect of project management and a primary activity of the CWS-NS Project Manager. The CWS-NS Project Manager must have the information to understand the scope of work, the objectives, resources, responsibilities, milestones, status, risks, and issues of the project. This PMP establishes the framework for integrating and managing the various project management areas.

This PMP defines how project planning, project execution, project monitoring and control, and closing phases will be managed. In addition, the management of unanticipated tasks, the project schedule, and tailoring to achieve phase close-out/lessons learned project activities are defined within the PMP.

While summary narrative will be provided in most of the following sub-sections, a complete PMP for the CWS-NS Project is provided in Appendix B – Project Management Plan.

6.1 Project Organization

The CWS-NS Project has been organized in a manner to build a collaborative environment for the project and the program to maximize the delivery of the business value of the project. The Organization Chart reflects both the project and program organizations in terms of their individual administrative and technical elements, as well as the interdependencies and cross-functional support they provide to each other. Refer to Appendix C – CWS-NS Project Organization Chart and Appendix D – CWS-NS Project Roles and Responsibilities.

6.2 Project Plan

While the Project Management Plan (PMP) defines the approach(s) to the execution of all aspects of the project, the project schedule focuses on the specific tasks, deliverables and milestones that are assigned to and completed by the project team. A Microsoft (MS) Project schedule is provided in Appendix E – CWS-NS Project Schedule that captures the high-level tasks, resource assignments, task dependencies and milestones for the project. This MS Project schedule will continue to go through expansion and refinement during the life of the project.

6.2.1 Project Phasing

Project phasing is expressed from two perspectives. One perspective is based on functional segmentation of the work as defined in the project schedule. This project schedule is provided in Appendix E – CWS-NS project Schedule and identifies the phases of the system delivery.

The other is based on the conceptual organization of the work as defined in the Work Breakdown Schedule (WBS). For this FSR, the elements of the WBS are provided in Appendix A - Project Management Plan. Appendix E – CWS-NS project Schedule is focused on WBS element 3.0 – Develop CWS-NS System. The detail for the other WBS elements will be added to the schedule after the project FSR is approved, the project is chartered is executed and the core project team is assembled and work commences.

Following the stages (phases) outlined in the CA-PMM, the following are the primary deliverables for each phase.

Table 6-1 - Project Phases and Deliverables Roles and Responsibilities

Project Phase	Phase Deliverables
Establish/Maintain Environments	• Computing Hardware/Software (OS & SOA) Acquisition • Computing Hardware/Software (OS & SOA) Installation • SOA Infrastructure (Application Architecture) Configuration • Development/Sandbox Environment Delivery • Test/Training Environment Delivery • Infrastructure Delivery
Data Conversion	• Data Conversion Process Definition • Data Conversion Tool Delivery • Database Population (data migration – including BLOB's)
DD&I – Phase 1 Core Services Configuration	• Core Services (purchased) Capability Configuration • Report Validation/Design • Report Delivery • Data Exchange Interface Validation/Design • Data Exchange Interface Delivery • Workflow Process Definition • Workflow Rules Definition • SOA Workflow Engine Configuration • SOA Registry Update

Project Phase	Phase Deliverables
	• SOA Rules Engine Update • Core System Test and Acceptance
DD&I - Phase 1 Custom Services Development	• Phase 1 Custom Service Increments Design • Phase 1 Custom Service Increments Delivery • Phase 1 Custom Service Increments Test and Acceptance
DD&I - Phase 1 Custom Services Implementation	• Integration/System Testing • User Acceptance Testing • Training • Production System Delivery
DD&I – Phase 2 Custom Service Development	• Phase 2 Custom Service Increments Design • Phase 2 Custom Service Increments Delivery • Phase 2 Custom Service Increments Test and Acceptance
DD&I - Phase 2 Custom Services Implementation	• Integration/System Testing • User Acceptance Testing • Training • Production System Update

6.2.2 Project Schedule

While the Project Management Plan (PMP) defines the approach(s) to the execution of all aspects of the project, the project schedule focuses on the specific tasks, deliverables and milestones that are assigned to and completed by the project team. A Microsoft (MS) Project schedule is provided in Appendix E – CWS-NS project Schedule that captures the high-level tasks, resource assignments, task dependencies and milestones for the project. This MS Project schedule will continue to go through expansion and refinement during the life of the project.

6.3 Authorization Required

This project requires approval from the following:

- CDSS Chief Information Officer
- CDSS Budget Officer
- CDSS Department Director
- Acting Agency Chief Information Officer
- CHHS Agency Secretary
- Department of Finance

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7 Risk Management Plan

The CWS-NS project will utilize Risk Radar® as the project risk database. The CWS-NS project Risk Management Plan (see Appendix F) contains a detailed description of the design, capabilities and operation of Risk Radar®.

The CWS-NS project Risk Management Plan also identifies the use of the Management Tracking System (MTSII) to track execution of mitigation and contingency action plans. This workflow tool will provide the Risk Manager and Risk Analyst with monitoring capabilities on risk status mitigation or contingency plan execution. Risks that require approval from the Project Manager in order for the associated activities to proceed will also be monitored in MTSII. MTSII is an extension of the risk register function and is a critical tool in the execution of project risk management.

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8 Economic Analysis Worksheets (EAWS)

Appendices

Appendix A

Report to the Legislature: Child Welfare Services Automation Study

Appendix B

CWS-NS
Project Management Plan

Appendix C

CWS-NS
Organization Charts

Appendix D

CWS-NS
Project Roles and Responsibilities

Appendix E

CWS-NS
Project Schedule

Appendix F

CWS-NS
Risk Management Plan

Appendix G

CWS-NS
Business Process
Workflows/Use Cases

Appendix H

CWS-NS
Technical Architecture Vision

Appendix I

CWS-NS
Evaluation Framework

Appendix J

CWS-NS
SIMM 20D – Questionnaire for Information Systems

Appendix K

CWS-NS
Validation of Buy/Build Approach

Appendix L

CWS-NS
CMS-CWS Governance Structure 2011

Appendix M

Ten Year EAW

Appendix N

OSI and CDSS
FY 2013/14
Budget Change Proposal Workload Analysis

SIMM 20C30C, Rev. 08/2010

PROPOSED ALTERNATIVE: New System Buy/Build Approach

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	31.0	3,289,316	33.0	3,502,642	42.0	4,469,978	52.5	5,641,459	14.0	1,507,988	0.0	0	172.5	18,411,385
Hardware Purchase		0		0		1,209,000		744,000		186,000		0		2,139,000
Software Purchase/License		0		0		37,854,340		8,116,175		2,029,044		0		47,999,559
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		0		10,051,096		11,244,846		2,929,962		0		24,225,904
Project Management		0		0		0		0		0		0		0
Project Oversight		127,842		127,842		127,842		127,842		31,961		0		543,330
IV&V Services		317,520		425,376		788,256		788,256		52,416		0		2,371,824
Other Contract Services		4,260,996		5,569,504		10,305,929		14,710,731		7,563,165		0		42,410,325
TOTAL Contract Services		4,706,358		6,122,722		21,273,124		26,871,676		10,577,503		0		69,551,382
Data Center Services		247,955		247,955		734,360		734,360		183,590		0		2,148,220
Agency Facilities		392,000		1,171,930		348,140		343,140		85,785		0		2,340,995
Other		1,666,417		22,604,154		62,665,150		79,482,339		42,083,130		0		208,501,190
Total One-time IT Costs	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**14.0**	**56,653,040**	**0.0**	**0**	**172.5**	**351,091,731**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	30.0	3,388,470	40.0	4,517,960	70.0	7,906,431
Hardware Lease/Maintenance		0		0		0		0		558,000		744,000		1,302,000
Software Maintenance/Licenses		0		0		0		0		6,087,131		8,116,175		14,203,306
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		5,248,658		6,951,544		12,200,201
Data Center Services		0		0		0		0		559,770		746,360		1,306,130
Agency Facilities		0		0		0		0		257,355		343,140		600,495
Other		0		0		0		0		1,679,475		2,450,255		4,129,730
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**30.0**	**17,778,859**	**40.0**	**23,869,434**	**70.0**	**41,648,293**
Total Project Costs	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	47.5	4,423,339	38.5	3,324,207	26.5	1,811,219	5.6	452,805	0.0	0	167.6	14,677,523
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		19,643,219		0		325,314,638
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**47.5**	**80,410,256**	**38.5**	**80,143,957**	**26.5**	**79,493,470**	**5.6**	**20,096,024**	**0.0**	**0**	**167.6**	**339,992,161**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	15.3	1,416,593	16.0	1,501,241	83.3	7,568,432
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**15.3**	**85,862,662**	**16.0**	**85,947,310**	**83.3**	**514,244,846**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**60.5**	**166,018,975**	**51.5**	**165,752,676**	**39.5**	**165,102,189**	**20.9**	**105,958,686**	**16.0**	**85,947,310**	**250.9**	**854,237,006**
TOTAL ALTERNATIVE COSTS	**93.5**	**175,759,219**	**93.5**	**199,668,379**	**93.5**	**294,306,767**	**92.0**	**287,035,337**	**64.9**	**180,390,585**	**56.0**	**109,816,743**	**493.4**	**1,246,977,030**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information Technology Costs														
Staff (salaries & benefits)	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	**297.0**	**27,995,718**
Hardware Lease/Maintenance		1,442,880		1,442,880		1,442,880		1,442,880		1,442,880		1,442,880		**8,657,280**
Software Maintenance/Licenses		2,586,908		2,586,908		2,586,908		2,586,908		2,586,908		2,586,908		**15,521,448**
Contract Services		33,327,048		34,131,464		34,964,297		35,826,798		36,717,423		37,641,179		**212,608,209**
Data Center Services		35,986,634		35,986,634		35,986,634		35,986,634		35,986,634		35,986,634		**215,919,804**
Agency Facilities		0		0		0		0		0		0		**0**
Other		1,839,031		1,839,031		1,839,031		1,839,031		1,839,031		1,839,031		**11,034,186**
Total IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**49.5**	**83,238,829**	**49.5**	**84,162,585**	**297.0**	**491,736,645**
Continuing Program Costs:														
Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	**78.0**	**6,975,897**
Other		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		**506,676,414**
Total Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
TOTAL EXISTING SYSTEM COSTS	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**62.5**	**168,847,548**	**62.5**	**169,771,304**	**375.0**	**1,005,388,956**

SIMM 20C30C, Rev. 08/2010

EXISTING SYSTEM / BASELINE COST WORKSHEET

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	Subtotal		FY 2019/20		FY 2020/2021		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information Technology Costs										
Staff (salaries & benefits)	297.0	27,995,718	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	**445.5**	**41,993,577**
Hardware Lease/Maintenance		8,657,280		1,442,880		1,442,880		1,442,880		**12,985,920**
Software Maintenance/Licenses		15,521,448		2,586,908		2,586,908		2,586,908		**23,282,172**
Contract Services		212,608,209		35,027,453		35,027,453		35,027,453		**317,690,568**
Data Center Services		215,919,804		35,986,634		35,986,634		35,986,634		**323,879,706**
Agency Facilities		0		0		0		0		**0**
Other		11,034,186		1,839,031		1,839,031		1,839,031		**16,551,279**
Total IT Costs	**297.0**	**491,736,645**	**49.5**	**81,548,859**	**49.5**	**81,548,859**	**49.5**	**81,548,859**	**445.5**	**736,383,222**
Continuing Program Costs:										
Staff	78.0	6,975,897	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	**117.0**	**10,463,846**
Other		506,676,414		84,446,069		84,446,069		84,446,069		**760,014,621**
Total Program Costs	**78.0**	**513,652,311**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**117.0**	**770,478,467**
TOTAL EXISTING SYSTEM COSTS	**375.0**	**1,005,388,956**	**62.5**	**167,157,578**	**62.5**	**167,157,578**	**62.5**	**167,157,578**	**562.5**	**1,506,861,689**

SIMM 20C30C, Rev. 08/2010

ALTERNATIVE #1: CWS/CMS Upgrade

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	38.0	3,768,783	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	263.0	26,389,243
Hardware Purchase		25,600		54,400		0		0		25,600		25,600		131,200
Software Purchase/License		140,000		187,600		187,600		187,600		187,600		187,600		1,078,000
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		15,397,033		14,773,080		20,587,080		14,773,080		14,773,080		80,303,353
Project Management		582,912		582,912		582,912		582,912		582,912		582,912		3,497,472
Project Oversight		549,120		549,120		549,120		549,120		549,120		549,120		3,294,720
IV&V Services		329,472		768,768		658,944		658,944		658,944		658,944		3,734,016
Other Contract Services		6,669,714		6,204,989		5,544,545		19,814,474		5,049,434		5,049,434		48,332,588
TOTAL Contract Services		8,131,218		23,502,822		22,108,601		42,192,530		21,613,490		21,613,490		139,162,149
Data Center Services		52,308		52,308		52,308		802,308		52,308		52,308		1,063,848
Agency Facilities		0		0		0		0		0		0		0
Other		4,045,762		28,118,943		75,782,880		96,518,447		51,857,542		3,897,956		260,221,532
Total One-time IT Costs	**38.0**	**16,163,671**	**45.0**	**56,440,165**	**45.0**	**102,655,481**	**45.0**	**144,224,977**	**45.0**	**78,260,632**	**45.0**	**30,301,046**	**263.0**	**428,045,972**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	19.0	1,957,097	19.0	1,957,097	38.0	3,914,194
Hardware Lease/Maintenance		0		0		0		0		41,300		41,300		82,600
Software Maintenance/Licenses		0		0		0		0		165,200		165,200		330,400
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		49,988,989		49,988,989		99,977,978
Data Center Services		0		0		0		0		802,308		802,308		1,604,616
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		5,353,424		5,449,424		10,802,848
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**19.0**	**58,308,318**	**19.0**	**58,404,318**	**38.0**	**116,712,636**
Total Project Costs	**38.0**	**16,163,671**	**45.0**	**56,440,165**	**45.0**	**102,655,481**	**45.0**	**144,224,977**	**64.0**	**136,568,950**	**64.0**	**88,705,364**	**301.0**	**544,758,608**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	0.0	0	198.0	18,663,812
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		7,000,000		0		312,671,419
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**0.0**	**7,000,000**	**0.0**	**0**	**198.0**	**331,335,231**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	78.0	6,975,897
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**13.0**	**92,608,719**	**13.0**	**85,608,719**	**276.0**	**844,987,542**
TOTAL ALTERNATIVE COSTS	**100.5**	**181,620,843**	**107.5**	**222,701,754**	**107.5**	**269,749,902**	**107.5**	**312,181,899**	**77.0**	**229,177,668**	**77.0**	**174,314,083**	**577.0**	**1,389,746,150**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #1:** CWS/CMS Upgrade

Date Prepared: 10/1/12

Department: California Department of Social Services All Costs Should be shown in whole (unrounded) dc

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs								
Staff (Salaries & Benefits)	263.0	26,389,243	45.0	4,524,092	0.0	0	308.0	30,913,335
Hardware Purchase		131,200		0		0		131,200
Software Purchase/License		1,078,000		187,600		0		1,265,600
Telecommunications		0		0		0		0
Contract Services								
Software Customization		80,303,353		14,773,080		0		95,076,433
Project Management		3,497,472		582,912		0		4,080,384
Project Oversight		3,294,720		549,120		0		3,843,840
IV&V Services		3,734,016		658,944		0		4,392,960
Other Contract Services		48,332,588		5,049,434		0		53,382,022
TOTAL Contract Services		139,162,149		21,613,490		0		160,775,639
Data Center Services		1,063,848		52,308		0		1,116,156
Agency Facilities		0		0		0		0
Other		260,221,532		3,897,956		0		264,119,488
Total One-time IT Costs	**263.0**	**428,045,972**	**45.0**	**30,275,446**	**0.0**	**0**	**308.0**	**458,321,418**
Continuing IT Project Costs								
Staff (Salaries & Benefits)	38.0	3,914,194	19.0	1,957,097	50.0	5,138,960	107.0	11,010,251
Hardware Lease/Maintenance		82,600		41,300		56,000		179,900
Software Maintenance/Licenses		330,400		165,200		224,000		719,600
Telecommunications		0		0		0		0
Contract Services		99,977,978		49,988,989		55,278,989		205,245,956
Data Center Services		1,604,616		802,308		802,308		3,209,232
Agency Facilities		0		0		0		0
Other		10,802,848		5,449,424		7,081,388		23,333,660
Total Continuing IT Costs	**38.0**	**116,712,636**	**19.0**	**58,404,318**	**50.0**	**68,581,645**	**107.0**	**243,698,599**
Total Project Costs	**301.0**	**544,758,608**	**64.0**	**88,679,764**	**50.0**	**68,581,645**	**415.0**	**702,020,017**
Continuing Existing Costs								
Information Technology Staff	198.0	18,663,812	0.0	0	0.0	0	198.0	18,663,812
Other IT Costs		312,671,419		0		0		312,671,419
Total Continuing Existing IT Costs	**198.0**	**331,335,231**	**0.0**	**0**	**0.0**	**0**	**198.0**	**331,335,231**
Program Staff	78.0	6,975,897	16.0	1,501,241	16.0	1,501,241	110.0	9,978,379
Other Program Costs		506,676,414		84,446,069		84,446,069		675,568,552
Total Continuing Existing Program Costs	**78.0**	**513,652,311**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**110.0**	**685,546,931**
Total Continuing Existing Costs	**276.0**	**844,987,542**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**308.0**	**1,016,882,162**
TOTAL ALTERNATIVE COSTS	**577.0**	**1,389,746,150**	**80.0**	**174,627,074**	**66.0**	**154,528,955**	**723.0**	**1,718,902,179**
INCREASED REVENUES		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #2:** Re-Start CWS/Web

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	288.0	29,359,542
Hardware Purchase		25,600		54,400		0		25,600		25,600		54,400		185,600
Software Purchase/License		190,400		190,400		190,400		190,400		190,400		190,400		1,142,400
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		23,670,193		23,005,183		23,005,183		28,819,183		23,005,183		121,504,925
Project Management		595,200		595,200		595,200		595,200		595,200		595,200		3,571,200
Project Oversight		549,120		549,120		549,120		549,120		549,120		549,120		3,294,720
IV&V Services		768,768		658,944		658,944		658,944		658,944		658,944		4,063,488
Other Contract Services		7,554,264		6,543,820		5,883,376		5,388,264		20,153,304		5,388,264		50,911,293
TOTAL Contract Services		9,467,352		32,017,277		30,691,823		30,196,711		50,775,751		30,196,711		183,345,626
Data Center Services		52,308		52,308		52,308		52,308		802,308		52,308		1,063,848
Agency Facilities		0		0		0		0		0		0		0
Other		4,663,574		33,296,028		79,509,021		109,381,839		60,433,104		4,239,772		291,523,339
Total One-time IT Costs	**48.0**	**19,292,492**	**48.0**	**70,503,670**	**48.0**	**115,336,809**	**48.0**	**144,740,116**	**48.0**	**117,120,421**	**48.0**	**39,626,848**	**288.0**	**506,620,355**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	15.0	1,582,176	15.0	1,582,176
Hardware Lease/Maintenance		0		0		0		0		0		38,500		38,500
Software Maintenance/Licenses		0		0		0		0		0		154,000		154,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		0		35,478,149		35,478,149
Data Center Services		0		0		0		0		0		802,308		802,308
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		0		5,238,848		5,238,848
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**15.0**	**43,293,981**	**15.0**	**43,293,981**
Total Project Costs	**48.0**	**19,292,492**	**48.0**	**70,503,670**	**48.0**	**115,336,809**	**48.0**	**144,740,116**	**48.0**	**117,120,421**	**63.0**	**82,920,829**	**303.0**	**549,914,336**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	247.5	23,329,765
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		78,572,876		15,000,000		399,244,295
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**49.5**	**83,238,829**	**0.0**	**15,000,000**	**247.5**	**422,574,060**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	78.0	6,975,897
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**62.5**	**168,847,548**	**13.0**	**100,608,719**	**325.5**	**936,226,371**
TOTAL ALTERNATIVE COSTS	**110.5**	**184,749,664**	**110.5**	**236,765,259**	**110.5**	**282,431,230**	**110.5**	**312,697,038**	**110.5**	**285,967,968**	**76.0**	**183,529,548**	**628.5**	**1,486,140,708**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #2:** Re-Start CWS/Web

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs										
Staff (Salaries & Benefits)	288.0	29,359,542	48.0	4,893,257	48.0	4,893,257	0.0	0	384.0	39,146,056
Hardware Purchase		185,600		0		0		0		185,600
Software Purchase/License		1,142,400		190,400		190,400		0		1,523,200
Telecommunications		0		0		0		0		0
Contract Services										
Software Customization		121,504,925		23,005,183		5,577,146		0		150,087,254
Project Management		3,571,200		595,200		297,600		0		4,464,000
Project Oversight		3,294,720		549,120		274,560		0		4,118,400
IV&V Services		4,063,488		658,944		329,472		0		5,051,904
Other Contract Services		50,911,293		5,388,264		3,436,799		0		59,736,357
TOTAL Contract Services		183,345,626		30,196,711		9,915,577		0		223,457,915
Data Center Services		1,063,848		52,308		52,308		0		1,168,464
Agency Facilities		0		0		0		0		0
Other		291,523,339		4,239,772		4,239,772		0		300,002,883
Total One-time IT Costs	**288.0**	**506,620,355**	**48.0**	**39,572,448**	**48.0**	**19,291,314**	**0.0**	**0**	**384.0**	**565,484,118**
Continuing IT Project Costs										
Staff (Salaries & Benefits)	15.0	1,582,176	15.0	1,582,176	15.0	1,582,176	50.0	5,138,960	95.0	9,885,488
Hardware Lease/Maintenance		38,500		38,500		38,500		56,000		171,500
Software Maintenance/Licenses		154,000		154,000		154,000		224,000		686,000
Telecommunications		0		0		0		0		0
Contract Services		35,478,149		35,375,149		35,375,149		40,665,149		146,893,596
Data Center Services		802,308		802,308		802,308		802,308		3,209,232
Agency Facilities		0		0		0		0		0
Other		5,238,848		5,238,848		5,238,848		7,081,388		22,797,932
Total Continuing IT Costs	**15.0**	**43,293,981**	**15.0**	**43,190,981**	**15.0**	**43,190,981**	**50.0**	**53,967,805**	**95.0**	**183,643,748**
Total Project Costs	**303.0**	**549,914,336**	**63.0**	**82,763,429**	**63.0**	**62,482,295**	**50.0**	**53,967,805**	**479.0**	**749,127,866**
Continuing Existing Costs										
Information Technology Staff	247.5	23,329,765	0.0	0	0.0	0	0.0	0	247.5	23,329,765
Other IT Costs		399,244,295		0		0		0		399,244,295
Total Continuing Existing IT Costs	**247.5**	**422,574,060**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**247.5**	**422,574,060**
Program Staff	78.0	6,975,897	13.0	1,162,650	16.0	1,501,241	16.0	1,501,241	123.0	11,141,028
Other Program Costs		506,676,414		84,446,069		84,446,069		84,446,069		760,014,621
Total Continuing Existing Program Costs	**78.0**	**513,652,311**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**123.0**	**771,155,649**
Total Continuing Existing Costs	**325.5**	**936,226,371**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**370.5**	**1,193,729,709**
TOTAL ALTERNATIVE COSTS	**628.5**	**1,486,140,708**	**76.0**	**168,372,148**	**79.0**	**148,429,604**	**66.0**	**139,915,115**	**849.5**	**1,942,857,575**
INCREASED REVENUES		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ALTERNATIVE #3: New System Custom Approach

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	38.0	3,768,783	49.0	4,859,570	49.0	4,859,570	49.0	4,859,570	49.0	4,859,570	0.0	0	234.0	23,207,063
Hardware Purchase		25,600		32,000		0		25,600		25,600		0		108,800
Software Purchase/License		196,000		252,000		252,000		252,000		252,000		0		1,204,000
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		13,831,450		33,476,900		27,662,900		27,662,900		0		102,634,150
Project Management		582,912		582,912		582,912		582,912		582,912		0		2,914,560
Project Oversight		549,120		549,120		549,120		549,120		549,120		0		2,745,600
IV&V Services		329,472		768,768		658,944		658,944		658,944		0		3,075,072
Other Contract Services		4,648,761		5,144,584		20,204,089		4,649,473		4,649,473		0		39,296,380
TOTAL Contract Services		6,110,265		20,876,834		55,471,965		34,103,349		34,103,349		0		150,665,762
Data Center Services		52,308		52,308		802,308		52,308		52,308		0		1,011,540
Agency Facilities		0		0		0		0		0		0		0
Other		4,469,378		27,895,219		75,559,156		99,645,200		60,193,311		0		267,762,265
Total One-time IT Costs	**38.0**	**14,622,335**	**49.0**	**53,967,931**	**49.0**	**136,945,000**	**49.0**	**138,938,027**	**49.0**	**99,486,138**	**0.0**	**0**	**234.0**	**443,959,430**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	15.0	1,582,176	15.0	1,582,176	50.0	5,138,960	80.0	8,303,312
Hardware Lease/Maintenance		0		0		0		38,500		38,500		56,000		133,000
Software Maintenance/Licenses		0		0		0		154,000		154,000		224,000		532,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		35,478,149		35,378,149		35,478,149		106,334,447
Data Center Services		0		0		0		802,308		802,308		802,308		2,406,924
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		5,142,848		5,142,848		6,985,388		17,271,084
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**15.0**	**43,197,981**	**15.0**	**43,097,981**	**50.0**	**48,684,805**	**80.0**	**134,980,767**
Total Project Costs	**38.0**	**14,622,335**	**49.0**	**53,967,931**	**49.0**	**136,945,000**	**64.0**	**182,136,008**	**64.0**	**142,584,119**	**50.0**	**48,684,805**	**314.0**	**578,940,197**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	0.0	0	0.0	0	148.5	13,997,859
Other IT Costs		75,182,501		75,986,917		76,819,750		7,000,000		0		0		234,989,168
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**0.0**	**7,000,000**	**0.0**	**0**	**0.0**	**0**	**148.5**	**248,987,027**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	16.0	1,501,241	81.0	7,314,488
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**81.0**	**513,990,902**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**13.0**	**92,608,719**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**229.5**	**762,977,929**
TOTAL ALTERNATIVE COSTS	**100.5**	**180,079,507**	**111.5**	**220,229,520**	**111.5**	**304,039,421**	**77.0**	**274,744,727**	**77.0**	**228,192,838**	**66.0**	**134,632,115**	**543.5**	**1,341,918,127**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 10/1/12

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	49.5	79,848,454	49.5	80,652,870	49.5	81,485,703	49.5	82,348,204	49.5	83,238,829	49.5	84,162,585	297.0	491,736,645
Total Program Costs	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	78.0	513,652,311
Total Existing System Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	62.5	168,847,548	62.5	169,771,304	375.0	1,005,388,956
PROPOSED ALTERNATIVE	**New System Buy/Build Approach**													
Total Project Costs	31.0	10,302,046	33.0	33,649,404	42.0	128,554,092	52.5	121,933,149	44.0	74,431,899	40.0	23,869,434	242.5	392,740,024
Total Cont. Exist. Costs	62.5	165,457,173	60.5	166,018,975	51.5	165,752,676	39.5	165,102,189	20.9	105,958,686	16.0	85,947,310	250.9	854,237,006
Total Alternative Costs	93.5	175,759,219	93.5	199,668,379	93.5	294,306,767	92.0	287,035,337	64.9	180,390,585	56.0	109,816,743	493.4	1,246,977,030
COST SAVINGS/AVOIDANCES	(31.0)	(10,302,046)	(31.0)	(33,406,790)	(31.0)	(127,212,346)	(29.5)	(119,078,415)	(2.4)	(11,543,037)	6.5	59,954,560	(118.4)	(241,588,074)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(31.0)	(10,302,046)	(31.0)	(33,406,790)	(31.0)	(127,212,346)	(29.5)	(119,078,415)	(2.4)	(11,543,037)	6.5	59,954,560	(118.4)	(241,588,074)
Cum. Net (Cost) or Benefit	(31.0)	(10,302,046)	(62.0)	(43,708,836)	(93.0)	(170,921,182)	(122.5)	(289,999,597)	(124.9)	(301,542,634)	(118.4)	(241,588,074)		
ALTERNATIVE #1	**CWS/CMS Upgrade**													
Total Project Costs	38.0	16,163,671	45.0	56,440,165	45.0	102,655,481	45.0	144,224,977	64.0	136,568,950	64.0	88,705,364	301.0	544,758,608
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	13.0	92,608,719	13.0	85,608,719	276.0	844,987,542
Total Alternative Costs	100.5	181,620,843	107.5	222,701,754	107.5	269,749,902	107.5	312,181,899	77.0	229,177,668	77.0	174,314,083	577.0	1,389,746,150
COST SAVINGS/AVOIDANCES	(38.0)	(16,163,671)	(45.0)	(56,440,165)	(45.0)	(102,655,481)	(45.0)	(144,224,977)	(14.5)	(60,330,121)	(14.5)	(4,542,779)	(202.0)	(384,357,194)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(38.0)	(16,163,671)	(45.0)	(56,440,165)	(45.0)	(102,655,481)	(45.0)	(144,224,977)	(14.5)	(60,330,121)	(14.5)	(4,542,779)	(202.0)	(384,357,194)
Cum. Net (Cost) or Benefit	(38.0)	(16,163,671)	(83.0)	(72,603,836)	(128.0)	(175,259,317)	(173.0)	(319,484,294)	(187.5)	(379,814,415)	(202.0)	(384,357,194)		
ALTERNATIVE #2	**Re-Start CWS/Web**													
Total Project Costs	48.0	19,292,492	48.0	70,503,670	48.0	115,336,809	48.0	144,740,116	48.0	117,120,421	63.0	82,920,829	303.0	549,914,336
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	62.5	168,847,548	13.0	100,608,719	325.5	936,226,371
Total Alternative Costs	110.5	184,749,664	110.5	236,765,259	110.5	282,431,230	110.5	312,697,038	110.5	285,967,968	76.0	183,529,548	628.5	1,486,140,708
COST SAVINGS/AVOIDANCES	(48.0)	(19,292,492)	(48.0)	(70,503,670)	(48.0)	(115,336,809)	(48.0)	(144,740,116)	(48.0)	(117,120,421)	(13.5)	(13,758,244)	(253.5)	(480,751,751)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(48.0)	(19,292,492)	(48.0)	(70,503,670)	(48.0)	(115,336,809)	(48.0)	(144,740,116)	(48.0)	(117,120,421)	(13.5)	(13,758,244)	(253.5)	(480,751,751)
Cum. Net (Cost) or Benefit	(48.0)	(19,292,492)	(96.0)	(89,796,162)	(144.0)	(205,132,971)	(192.0)	(349,873,086)	(240.0)	(466,993,507)	(253.5)	(480,751,751)		
ALTERNATIVE #3	**New System Custom Approach**													
Total Project Costs	38.0	14,622,335	49.0	53,967,931	49.0	136,945,000	64.0	182,136,008	64.0	142,584,119	50.0	48,684,805	314.0	578,940,197
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	13.0	92,608,719	13.0	85,608,719	16.0	85,947,310	229.5	762,977,929
Total Alternative Costs	100.5	180,079,507	111.5	220,229,520	111.5	304,039,421	77.0	274,744,727	77.0	228,192,838	66.0	134,632,115	543.5	1,341,918,127
COST SAVINGS/AVOIDANCES	(38.0)	(14,622,335)	(49.0)	(53,967,931)	(49.0)	(136,945,000)	(14.5)	(106,787,804)	(14.5)	(59,345,290)	(3.5)	35,139,189	(168.5)	(336,529,170)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(38.0)	(14,622,335)	(49.0)	(53,967,931)	(49.0)	(136,945,000)	(14.5)	(106,787,804)	(14.5)	(59,345,290)	(3.5)	35,139,189	(168.5)	(336,529,170)
Cum. Net (Cost) or Benefit	(38.0)	(14,622,335)	(87.0)	(68,590,266)	(136.0)	(205,535,265)	(150.5)	(312,323,069)	(165.0)	(371,668,359)	(168.5)	(336,529,170)		

SIMM 20C30C, Rev. 08/2010

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 10/1/12

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM										
Total IT Costs	297.0	491,736,645	49.5	81,548,859	49.5	81,548,859	49.5	81,548,859	445.5	736,383,222
Total Program Costs	78.0	513,652,311	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	117.0	770,478,467
Total Existing System Costs	375.0	1,005,388,956	62.5	167,157,578	62.5	167,157,578	62.5	167,157,578	562.5	1,506,861,689
PROPOSED ALTERNATIVE	**New System Buy/Build Approach**									
Total Project Costs									242.5	392,740,024
Total Cont. Exist. Costs									250.9	854,237,006
Total Alternative Costs									493.4	1,246,977,030
COST SAVINGS/AVOIDANCES									(118.4)	(241,588,074)
Increased Revenues										
Net (Cost) or Benefit									(118.4)	(241,588,074)
Cum. Net (Cost) or Benefit									(118.4)	(241,588,074)
ALTERNATIVE #1	**CWS/CMS Upgrade**									
Total Project Costs	301.0	544,758,608	64.0	88,679,764	50.0	68,581,645			415.0	702,020,017
Total Cont. Exist. Costs	276.0	844,987,542	16.0	85,947,310	16.0	85,947,310			308.0	1,016,882,162
Total Alternative Costs	577.0	1,389,746,150	80.0	174,627,074	66.0	154,528,955			723.0	1,718,902,179
COST SAVINGS/AVOIDANCES	(202.0)	(384,357,194)	(17.5)	(7,469,496)	(3.5)	12,628,623			(160.5)	(212,040,490)
Increased Revenues		0		0		0				0
Net (Cost) or Benefit	(202.0)	(384,357,194)	(17.5)	(7,469,496)	(3.5)	12,628,623			(160.5)	(212,040,490)
Cum. Net (Cost) or Benefit	(202.0)	(384,357,194)	(219.5)	(391,826,690)	(223.0)	(379,198,067)			(160.5)	(212,040,490)
ALTERNATIVE #2	**Re-Start CWS/Web**									
Total Project Costs	303.0	549,914,336	63.0	82,763,429	63.0	62,482,295	50.0	53,967,805	479.0	749,127,866
Total Cont. Exist. Costs	325.5	936,226,371	13.0	85,608,719	16.0	85,947,310	16.0	85,947,310	370.5	1,193,729,709
Total Alternative Costs	628.5	1,486,140,708	76.0	168,372,148	79.0	148,429,604	66.0	139,915,115	849.5	1,942,857,575
COST SAVINGS/AVOIDANCES	(253.5)	(480,751,751)	(13.5)	(1,214,570)	(16.5)	18,727,973	(3.5)	27,242,463	(287.0)	(435,995,886)
Increased Revenues		0		0		0		0		0
Net (Cost) or Benefit	(253.5)	(480,751,751)	(13.5)	(1,214,570)	(16.5)	18,727,973	(3.5)	27,242,463	(287.0)	(435,995,886)
Cum. Net (Cost) or Benefit	(253.5)	(480,751,751)	(267.0)	(481,966,322)	(283.5)	(463,238,349)	(287.0)	(435,995,886)	(287.0)	(435,995,886)
ALTERNATIVE #3	**New System Custom Approach**									
Total Project Costs									314.0	578,940,197
Total Cont. Exist. Costs									229.5	762,977,929
Total Alternative Costs									543.5	1,341,918,127
COST SAVINGS/AVOIDANCES									(168.5)	(336,529,170)
Increased Revenues										
Net (Cost) or Benefit									(168.5)	(336,529,170)
Cum. Net (Cost) or Benefit									(168.5)	(336,529,170)

SIMM 20C30C, Rev. 08/2010

PROJECT FUNDING PLAN

Department: California Department of Social Services

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
RESOURCES TO BE REDIRECTED														
Staff	13.0	1,557,153	13.0	1,557,153	13.0	1,557,153	13.0	1,557,153	3.3	389,288	0.0	0	**55.3**	**6,617,898**
Funds:														
Existing System		1,458,270		1,458,270		1,458,270		1,458,270		364,568		0		**6,197,649**
Other Fund Sources		0		0		0		0		0		0		**0**
TOTAL REDIRECTED RESOURCES	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**3.3**	**753,856**	**0.0**	**0**	**55.3**	**12,815,548**
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184	0.0	0	**117.3**	**338,276,183**
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859	40.0	23,869,434	**70.0**	**41,648,293**
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	**18.0**	**7,286,623**	**20.0**	**30,633,981**	**29.0**	**125,538,669**	**39.5**	**118,917,726**	**40.8**	**73,678,043**	**40.0**	**23,869,434**	**187.3**	**379,924,476**
TOTAL PROJECT FUNDING	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
Total Estimated Cost Savings	(31.0)	(10,302,046)	(33.0)	(33,649,404)	(42.0)	(128,554,092)	(52.5)	(121,933,149)	5.5	8,806,930	9.5	60,293,151	**(143.5)**	**(225,338,610)**

FUNDING SOURCE*														
General Fund	50%	5,151,023	50%	16,824,702	50%	64,277,046	50%	60,966,574	50%	37,215,949	50%	11,934,717	50%	196,370,012
Federal Fund	50%	5,151,023	50%	16,824,702	50%	64,277,046	50%	60,966,574	50%	37,215,949	50%	11,934,717	50%	196,370,012
Special Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	10,302,046	100%	33,649,404	100%	128,554,092	100%	121,933,149	100%	74,431,899	100%	23,869,434	100%	392,740,024

***Type:** If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

SIMM 20C30C, Rev. 08/2010

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

Department: California Department of Social Se

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19	
Annual Project Adjustments	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**
One-time Costs												
Previous Year's Baseline	0.0	0	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184
(A) Annual Augmentation /(Reduction)	**18.0**	**7,286,623**	**2.0**	**23,347,358**	**9.0**	**94,904,688**	**10.5**	**(6,620,943)**	**(28.8)**	**(63,018,542)**	**(10.8)**	**(55,899,184)**
(B) Total One-Time Budget Actions	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184	0.0	0
Continuing Costs												
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859
(C) Annual Augmentation /(Reduction)	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**30.0**	**17,778,859**	**10.0**	**6,090,575**
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859	40.0	23,869,434
Total Annual Project Budget Augmentation /(Reduction) [A + C]	**18.0**	**7,286,623**	**2.0**	**23,347,358**	**9.0**	**94,904,688**	**10.5**	**(6,620,943)**	**1.3**	**(45,239,683)**	**(0.8)**	**(49,808,609)**

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

Annual Savings/Revenue Adjustments

Cost Savings	(31.0)	(10,302,046)	(2.0)	(23,347,358)	(9.0)	(94,904,688)	(10.5)	6,620,943	58.0	130,740,079	4.0	51,486,221
Increased Program Revenues		0		0		0		0		0		0

REPORT TO THE LEGISLATURE:

CHILD WELFARE SERVICES AUTOMATION STUDY

STATE OF CALIFORNIA
Edmund G. Brown Jr., Governor

HEALTH AND HUMAN SERVICES AGENCY
Diana S. Dooley, Secretary

CALIFORNIA DEPARTMENT OF SOCIAL SERVICES
Will Lightbourne, Director

CHILDREN AND FAMILY SERVICES DIVISION
Gregory E. Rose, Deputy Director

in partnership with

OFFICE OF SYSTEMS INTEGRATION

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Report to the Legislature

Child Welfare Services Automation Study

Legislative Mandate

AB 106, Committee on Budget. Human Services. (Chapter 32, Statutes of 2011)

SEC. 71. (a) By January 10, 2012, the State Department of Social Services, in partnership with the Office of Systems Integration and stakeholders, including legislative staff and counties, shall do all of the following:

(1) Determine and describe the degree to which the Child Welfare Services/Case Management System (CWS/CMS) satisfies all of the following requirements:

(A) Complies with applicable existing law, regulation, and policy.

(B) Supports existing child welfare services practice, including, but not limited to, key child welfare services functions, ease of access to case and service information, multidisciplinary case management, and ease of use.

(C) Links to information that enhances investigation, case management, or efficiency.

(D) Provides ready access to data for reporting, planning, management, and program outcome monitoring.

(2) Determine the best approach or approaches to address any missing functionalities that are critical to child welfare services operations. Options shall include building functionality into the existing CWS/CMS, restarting the CWS/Web procurement, or developing a new procurement.

(3) Assess and report on communication from the federal government regarding system requirements, both by the January 10, 2012, deadline, and thereafter, when the department receives additional direction regarding federal requirements.

(4) Recommend next steps, including a timeline, for implementing approaches identified pursuant to paragraph (2).
(b) (1) The requirement for submitting a report imposed under subdivision (a) is inoperative on January 10, 2016, pursuant to Section 10231.5 of the Government Code.

(2) A report to be submitted pursuant to subdivision (a) shall be submitted in compliance with Section 9795 of the Government Code.

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Copies of this report can be obtained from:

California Department of Social Services

Office of Legislation

744 P Street MS 8-16-32

Sacramento CA 95814

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Section I
Introduction / Executive Summary

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I. INTRODUCTION/EXECUTIVE SUMMARY

A. Purpose of this Report

The California 2011/12 Enacted Budget indefinitely suspended the Child Welfare Services Web (CWS/Web) Project. This report has been developed by the California Department of Social Services (CDSS) in partnership with the Office of Systems Integration (OSI), the County Welfare Directors Association of California (CWDA), the California Technology Agency (Tech Agency), and county and other stakeholders to provide responses to the State Legislature as directed by Assembly Bill (AB) 106, Chapter 32.

The CDSS AND OSI established the Child Welfare Services Automation Study Team (CAST) with selected state and county stakeholders who demonstrated the required technical expertise to conduct a thorough analysis of the Child Welfare Services/Case Management System (CWS/CMS). The aim of the study was to accurately assess and evaluate the information to be used in responding to the Legislature by January 10, 2012, as required by AB 106, Chapter 32, Section 71.

This report contains an assessment of the business needs of Child Welfare System of services (CWS), an assessment of the existing system, an analysis of viable automated system options to meet the critical business needs, communication from the federal government regarding Statewide Automated Child Welfare Information System (SACWIS) redesign requirements, and a recommendation on next steps, including a timeline and implementation approach.

This report addresses the questions raised in AB 106, which stated:

1. *Determine and describe the degree to which CWS/CMS system:*
    a. *Is in compliance with current law, regulation, and policy.*
    b. *Supports current Child Welfare System (CWS) practice, including but not limited to key CWS functions, ease of access to case and service information, multidisciplinary case management, and ease of use.*
    c. *Links to information that enhances investigation, case management, or efficiency.*
    d. *Provides ready access to data for reporting, planning, management, and program outcome monitoring.*
2. *Determine the best approach to address any missing functionalities that are critical to CWS operations. Options shall include building functionality into the current CWS/CMS, restarting the CWS/Web procurement, or developing a new procurement.*
3. *Assess and report on communication from the federal government regarding requirements of the system, both by the January 10, 2012 deadline and thereafter when there is additional direction on federal expectations.*
4. *Recommend next steps, including a timeline, for implementing the recommended approach or approaches.*

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B. Executive Summary

1. Preface

With the indefinite suspension of the CWS/Web Project and legislative report request, staff from CDSS, OSI and counties researched the existing CWS/CMS and identified alternatives related to its continued use as well as its replacement. Based on findings from previous CDSS-sponsored reports such as the Go Forward Plan and the CWS/CMS Technical Architecture Alternatives Analysis Report, and research completed for this report, it is neither feasible nor cost-effective to maintain and enhance the old technology of the existing system; therefore, its replacement is the recommended alternative.

The recommendation is the Buy/Build alternative, involving the purchase of an application or applications that are already available, such as commercial off-the-shelf software (COTS) or a transfer system (currently in use or production in another state). The application or suite of applications would be purchased and used as-is, with any additional business functionality identified and built over time as extensions, basically customizing the system for California's program needs. The one-time cost for this alternative is between $156 million to $184 million over the next five years. This alternative has support from stakeholders, including county child welfare agencies which are the primary users of the system, based on the potential for greatly enhanced functionality at the lowest cost and a relatively swift implementation schedule. The team conducted two Requests for Information (RFI) submissions to validate the capacities of existing COTS or transfer systems, and the second RFI is to identify gaps between what's available and what's needed to provide for the program. These gaps will be identified and researched with the goal of completing a gap analysis by February 2012.

The team also reviewed other viable alternatives; and the report provides the full evaluation of each alternative researched. The other alternatives reviewed include:

- Upgrading the existing CWS/CMS. The analysis showed this as a less viable alternative, due to the costs of enhancing and maintaining the aged technology of the existing system.
- Restarting the CWS/Web Project. This alternative would provide sufficient functionality to meet program requirements; however, the time and cost for implementation, in comparison to the Buy/Build, eliminated it from contention.
- Custom design of a new system, using an incremental lifecycle (development and deployment of the application in phases, as opposed to an all-at-once approach). Like restarting the CWS/Web Project, this would support the program needs but the time and cost involved are not as practical as the recommended solution.

After full evaluation, the Buy/Build meets the program and business needs, costs, and time to delivery requirements, and therefore is the recommended solution.

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2. Introduction

California's state-supervised, county-administered Child Welfare Services (CWS) program provides services to abused and neglected children, children in placement, and their families. The “business” of Child Welfare Services is protecting the most vulnerable of our state’s residents, who are frequently raised in poverty and have experienced tremendous trauma in their short lives. In order to protect and preserve families, a multi-agency collaborative service approach is essential and requires a system with interoperability.

Child-protection work does not occur in an office at a desk but in the community homes, schools, hospitals, foster homes, and community centers. Child Welfare Services is a face-to-face business. We provide services to children at risk of abuse. This is the fundamental question CWS workers must determine: “Is this child safe?” CWS workers have to make a decision, often on the spot, whether a child needs to be removed from the home to ensure his or her safety.

State and county CWS workers require considerable resources to provide services to abused and neglected children in California. Each month CWS workers investigate approximately 31,500 reports of severe injury, death and life-threatening neglect at the hands of their parents and family members. More than 60,000 family members receive services designed to prevent abuse and neglect and to improve the capacity of families to safely care for over 100,000 children put in placement for their protection or living with their parents under close county protective supervision.

The current automated system, CWS/CMS, does not fully support child welfare practice and CWS workers do not have the tools or access to all the information needed and available to do their jobs. CWS/CMS is the most complex and largest child-welfare caseload in the United States.

CWS/CMS is in maintenance and operations mode with minimal development activity occurring. Numerous requests for changes and upgrades were deferred in anticipation of the improved system expected with the CWS/Web Project.

3. Summary of Response to AB 106/Committee on Budget (Chapter 32, Statutes of 2011)

This section of the report summarizes the responses to questions in AB 106.

Compliance with Current State and Federal Law, Regulation or Policy

CWS/CMS is not compliant with federal and state laws, regulations, and policies, including federal SACWIS requirements. Although the automated system is not compliant, the CWS program is compliant with laws, regulations and court orders. Program compliance is achieved through redundant manual processes and the creation of more than 100 external systems to fill the gaps in functionality. These inadequacies cause costly workarounds and divert CWS workers from supporting families.

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System changes have been unable to keep pace with federal and state laws that change practice and requirements. Specific examples include:

- AB 636: Child Welfare System Improvement and Accountability Act – need to be able to provide accurate data that is required to manage the programs.
- AB 12/212: California Fostering Connections to Success Act and SB 654: Independent Living Program services – need to be able to allow CWS to determine and manage eligibility and the tracking of foster care and services costs.
- SB 1353 and AB 1933: Education stability/school of origin – need to be able to verify and manage foster parent reimbursement for transportation to and from school.
- SB 678: Indian Child Welfare Act (ICWA) compliance/placement of Indian child in Indian home –need to verify tribal membership status, identify availability of CWS jurisdiction, track placement and adoption in Indian Tribal homes.
- AB 743: Sibling placement/visitation: visitation – need to be able to document and manage our efforts to keep siblings together and facilitate visitation where that is not possible.
- SB 703: Interstate Compact on the Placement of Children (ICPC) – need to be able to track and report incoming ICPC home-study requests for children.
- SACWIS:
    - Interfaces
    - Adoption services
    - Data archiving
    - Eligibility determination
    - Financial management
    - Federal reporting

CWS/CMS Missing Functionality Critical to CWS Operations

Since CWS/CMS was designed and implemented, professional practice, regulations, and program needs have changed significantly. Productivity demands of a more mobile, technology-proficient work force require new tools to take full advantage of the growing skills and capabilities of CWS workers.

Missing critical functionality includes interfaces, service requests/referrals, and the SACWIS requirements outlined above. Additionally, current functionality that is not sufficient includes search functionality and the ability to manage placements, contacts, case plans and safety/risk assessments. The current reporting solution is also inadequate and does not meet the child welfare reporting needs.

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County and state users believe incorporation of the critical functionality in an automated system will provide significant benefits and result in improved delivery of services to children and families, more efficient and effective use of the CWS workers' time, and better-quality case information. All of these enhancements are critical towards achieving program objectives, improving outcomes and improving child welfare practice.

Further detail on the missing and incomplete functionality of CWS/CMS that is critical for CWS practice is provided in Section IV: Status of CWS/CMS.

Federal Communication on SACWIS

The Administration for Children and Families (ACF) continues to develop proposed changes to SACWIS requirements. At this time, ACF has not released any information on potential SACWIS requirement changes or specified a timeframe for completing the process. ACF has been cooperative and supportive of the legislative report process and have informally advised CDSS that a suspension of the current higher SACWIS level federal financial participation (FFP) in CWS/CMS operation and on-going planning activities is unlikely as long as California makes reasonable timely progress towards complying with SACWIS requirements. However, failure to meet this federal regulatory expectation will result in reduction of FFP from the 50 percent SACWIS level to the lower Title IV-E FFP level for CWS/CMS and require California to reimburse the federal government for all or part of SACWIS FFP claimed since the beginning of the CWS/CMS project in the mid 1990s. Given the millions of dollars of SACWIS funding received by the State and counties over the life cycle of CWS/CMS, payback of federal SACWIS funds could be significant. ACF has not provided California with an estimate of how large the reimbursement amount will be (see Section II for background on SACWIS funding and Section VI for explanation of that payback process).

Comprehensive Evaluation of Alternative Solutions

The CAST conducted an analysis of alternatives using the process shown in Appendix B: Evaluation Framework. The alternatives assessed represent fundamental configurations at a high level. Several different detailed configurations are possible under each alternative, but this study did not examine the alternatives to that degree.

Four alternative solutions met sufficient evaluation criteria to be analyzed in detail as summarized in the table below.

Table 1 – Summary of Alternatives

Summary of Alternatives
CWS/CMS Upgrade - Upgrade the current system technology and functionality.
CWS/Web Restart – Use the existing CWS/Web Request for Proposal (RFP) to procure a new system.
New System Custom – Redevelop requirements and procure a new custom-built system.
New System Buy/Build – Redevelop requirements and buy a vendor pre-built solution with custom-built services as required to meet business needs and legislative mandates.

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Additional alternatives were considered, including upgrading CWS/CMS to a "thick-client" platform. This alternative was determined to not meet critical CWS requirements. Another alternative considered involved fulfilling missing functional requirements by subscribing to a vendor-hosted software service (SaaS) maintained in a "cloud-computing" environment. Although an initial assessment of SaaS as a possible alternative has been initiated, suitable vendor offerings to fill CWS needs using this approach do not appear to exist based on current market research. The CAST will continue to research various SaaS solutions, communicate directly with potential providers through the Request for Information (RFI) process, and formulate a foundation to determine the feasibility or non-feasibility for this alternative.

Business Drivers Form Basis of Evaluation:

Prior to the evaluation of alternatives, the CAST developed a formal evaluation framework to assist with scoring and ranking the alternatives. The criteria that formed this framework were based on business drivers that were agreed upon by the CWS/CMS Program Impact Advisory Committee (PIAC), CWS/CMS Technical Advisory Committee (TAC), CWS/CMS Oversight Committee (OSC), Study Control Board, and the CDSS Director.

Employing the evaluation framework, the CAST analyzed, ranked, and scored each alternative based on six evaluation factors:

- CWS business needs
- Technical viability
- SACWIS
- Time
- Risk
- Cost

Buy/Build Alternative Best Meets the Evaluation Criteria Overall:

The evaluation process showed the Buy/Build Alternative as the most suitable alternative overall. It is the alternative that (1) provides functionality the fastest, with its "out-of-a-box" approach for initial implementation, (2) ranked best in time for being able to reach full-benefit realization, and (3) ranked as the best-cost option with the lowest ten-year Total Cost of Ownership (TCO) among all the alternatives.

Summary results of the alternatives evaluation are provided in the following table, which documents the scoring totals for each of the alternatives. To review the evaluation methodology, see Appendix B: Evaluation Framework.

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Table 2 – Scoring Summary of Alternatives

Alternative	Non-Cost	Cost	Total Score
CWS/CMS Upgrade	386.1	90.0	476.1
CWS/Web Restart	651.3	111.0	762.3
New System Custom	753.8	122.8	876.6
New System Buy/Build	754.8	150.0	904.8

The CDSS with OSI and stakeholders has determined that the future technology direction for CWS/CMS must be tied to the business challenge of enabling the delivery of effective services and improving outcomes for the State's at-risk children. In other words, the needs of the children drive the practices of the service-delivery organization and provide the target for strategic employment of technologies.

CDSS, in partnership with OSI and stakeholders, performed extensive analysis during this study to address and link the current and future business needs of Child Welfare Services to the technology direction of CWS/CMS. The CAST reached a similar conclusion based on the Technical Architectural Alternative Analysis (TAAA) performed in 2005: to replace the existing system.

The recommendation is as follows:

- **Recommendation:** Replace CWS/CMS with a new computing infrastructure and a new software system – A Buy/Build product-delivery alternative is recommended to deliver (1) a new computing infrastructure, based on a Service-Oriented Architecture (SOA) and (2) a new software-based system. This recommendation will optimize deployment of the counties' current and emerging business needs and will facilitate effective delivery of CWS services. The State will need to continue maintenance and operations (M&O) of the current CWS/CMS while simultaneously developing this new infrastructure and system.

Business Needs Criteria Supports Selection of the Buy/Build Alternative:

Analysis shows that each of the alternatives is able to accommodate state and county business requirements. The Buy/Build alternative will provide the ability to support CWS practice and has the fastest time-to-benefit. With this alternative, most business needs are expected to be met through an existing, tested and in-use product. Identified gaps and California-specific future enhancements will be addressed through custom-built services that are not expected to alter the core product. This alternative also avoids the risks of impacts associated with full-scale custom system-development efforts.

SACWIS requirements and business needs overlap; if the business needs for critical functionality are met, SACWIS compliance will also be achieved.

SACWIS Criteria Supports Selection of Buy/Build Alternative:

Although each alternative has the potential to meet the requirements of SACWIS, the selected alternative meets the SACWIS requirements up to four years earlier by

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delivering the functionality critical to supporting CWS practice. The use of an existing, tested and in-use core product – that has likely already been found by ACF to be federal-SACWIS-compliant – provides maximum assurance that California will achieve full compliance. Reaching SACWIS compliance assures the State of continued federal financial participation (FFP) in its CWS automation effort.

Technical Viability Criteria Supports Selection of Buy/Build Alternative:

To validate the technical viability of the Buy/Build alternative, the CAST:

- Examined the architecture of CWS/CMS.
- Conducted interviews with key state and county stakeholders, county user technical staff, and M&O technical staff.
- Developed and released a survey to validate findings and refine proposed approaches to vendors who provide systems development and/or maintenance services.

As a result of these activities, it was determined that the existing CWS/CMS architecture cannot adequately support current and anticipated future business needs. Furthermore, the existing architecture introduced challenges for product offerings that were identified as possible buy/build solutions. A new computing infrastructure based on a Service-Oriented Architecture (SOA) was analyzed and determined to provide the most desirable combination of functionality support, management simplicity, architectural openness, scalability/flexibility/extensibility, and ease of integration/interface standardization. For any alternative that is not an upgrade to the existing CWS/CMS system, a new computing environment will be required.

Utilization of the buy/build software service(s) delivery approach, where the majority of the required functionality is provided through a completely developed, tested, and in-use product, was determined to deliver the best combination of shortest time-to-realization of business value, high potential for SACWIS compliance, and most favorable mitigation of financial, technical, operational, schedule, and implementation risks.

This alternative ranked highest in the technical category.

Cost Criteria Supports Selection of the Buy/Build Alternative:

The CAST estimated the cost for each alternative and compared costs among the alternatives. For each alternative, the estimates include: (1) one-time costs for the planning, development, and implementation phases; (2) continuing costs for the new estimated M&O; and (3) and existing costs to maintain CWS/CMS until the initial release is implemented. The cost-estimating period for each of the alternatives consists of costs through the end of procurement plus ten years of costs after contract award.

The approximate one-time costs of $170 million for the Buy/Build alternative, is the lowest of all alternatives, although this point estimate can range from $156 million to $184 million. The one-time cost estimate period for this alternative is five years with approved FFP of 50%, the total one-time cost to the SGF would be approximately $85 million, incurred between SFY 2012-13 and 2016-17.

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Continuing Information Technology (IT) costs for the new M&O are estimated to begin after the implementation of the initial release. Continuing existing IT costs are estimated to be incurred for three years and six months, during the same period required to procure the alternative and implement the initial release.

Current State Fiscal Year (SFY) 2011-12 CWS/CMS M&O costs are $81 million, funded through 50 percent of` FFP funds and 50 percent State General Fund (SGF) dollars. This amount is projected to grow to approximately $94 million by SFY 2023-24. Request for FFP is submitted for approval on an annual basis and approvals are contingent on the State providing an annual plan to the ACF, showing the State's strategy for becoming SACWIS-compliant.

The Buy/Build alternative will allow the State to qualify for continued FFP annually for implementing a new solution, as well as for M&O costs associated with the existing system.

After development is complete, ongoing M&O costs are anticipated to be significantly lower than for the current system. Estimated average M&O costs for the Buy/Build alternative range from $43 to $51 million a year. With approved FFP of 50 percent, SGF estimated costs would range $22 to $26 million a year, generating an approximate total SGF savings of $167 million through SFY 2023-24. The CAST projects the State can reduce ongoing operation costs of approximately 47 percent per year over the existing CWS/CMS.

The costs relate to the current CWS/CMS and the Buy/Build Alternative. The CWS Program also incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

These summary cost estimates do not include CWS/CMS or CWS program costs managed within CDSS.

Cost estimates were based on existing CWS/CMS costs, previously-approved CWS/Web project costs, Department of General Services (DGS) pricing resources, and a 3.5 percent increase to account for vendor labor cost escalation for each alternative.

Time Criteria Supports Selection of the Buy/Build Alternative:

In this category, the difference between all of the alternatives was significant. In the category of "time to realize total benefits," the Buy/Build alternative ranked higher than other alternatives because it had the shortest time-to-benefits delivery period.

Risk Criteria Supports Selection of the Buy/Build Alternative:

The risk category covers seven risk areas: financial, technical, operational, program, competitive procurement, schedule, and implementation. The Buy/Build alternative is lowest in overall risks among alternatives.

Other Factors to Consider

There are a number of initiatives to implement Health and Human Services (HHS) IT hardware systems and software services over the next few years. The most notable initiatives (based on size and impact) to the agency include:

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- IT efforts associated with the California eHealth Initiative
- The Centers for Medicaid and Medicare Services (CMS) regulation changes for enhanced federal funding and cost allocation waivers (i.e., OMB A-87: Cost Principles for State, Local, and Indian Tribal Governments)
- The Leader Replacement System (LRS).

The CWS/CMS replacement system assessed in this report would also fall into the above size/impact grouping.

The federal government is providing enhanced funding to acquire hardware systems and software services to support HHS program deliveries, provided they meet federal funding guidelines and requirements.

A common theme in the federal funding guidelines and requirements is the development of IT hardware systems and software services based on open standards that ensure modularity, interoperability, scalability, and flexibility. The federal objective is to better manage costs by (1) reducing the number of stand-alone, duplicative systems currently in production and (2) promoting each state's ability to leverage, reuse, and share system components and technologies. This ability to share existing hardware components and software services will reduce the time required to develop and implement new systems (deliver business value), reduce the one-time implementation costs, and reduce the continuing costs for maintenance and operations.

CDSS has an excellent opportunity to maximize access to and utilization of the benefits of this enhanced federal funding through collaboration with these other HHS initiatives. The recommended alternative, New System Buy/Build, contains a hardware architecture modernization [based on Service-Oriented Architecture (SOA) concepts] and a software implementation that aligns with the requirements of the aforementioned initiatives. Through collaboration with and leveraging of the IT hardware systems and software services related to the initiatives, CDSS can facilitate reduction of the overall time and costs required to deliver and maintain the CWS/CMS replacement system. Implementing this strategy of separating the hardware architecture and the software services when developing systems will establish an operational baseline that other state departments can use to plan for and achieve similar one-time and ongoing system costs reductions.

Since these potential collaborative initiatives are in their early stages, it was not possible to measure, estimate or include the potential one-time and ongoing cost reductions in the preparation of this report. As part of its planning phase, the CAST plans to conduct further analysis on the progress of these initiatives and the guidelines for acquiring (or participating in) the enhanced federal funding. That analysis will establish whether CDSS can leverage the IT hardware systems and/or software services related to these initiatives as part of the execution of the recommended buy/build alternative.

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Cost and Timeline Comparison Summary

The following summary displays a comparison of costs and timelines for the current system, CWS/CMS, and the alternatives. The cost and timeline period for alternatives are based on a ten-year period from the estimated contract award date, plus the procurement phase costs. For some alternatives the ten-year period starts and ends within a fiscal year and the costs are adjusted accordingly. Figures are rounded to the nearest million.

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Table 3 – Comparison of Alternatives and Current System Costs (50%-50% Federally-Funded / SGF-Funded)

EXISTING CWS/CMS
(Costs Rounded to the Millions)

	MAINTENANCE & OPERATION													*TOTAL
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	
Procurement Costs	$ -	$ -	$ 5	$ 6	$ 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 86	$ 87	$ 89	$ 90	$ 91	$ 93	$ 94	$ 96	$1,139
*Estimated Annual Totals	**$ 81**	**$ 82**	**$ 88**	**$ 89**	**$ 90**	**$ 86**	**$ 87**	**$ 89**	**$ 90**	**$ 91**	**$ 93**	**$ 94**	**$ 96**	**$1,156**

***Current System Costs do not reflect the following anticipated resource needs under current agreements:**

- ***Costs associated with building any required system functionality or enhancments.***
- ***Hardware/Software replacement costs for equipment as system ages.***

CWS/CMS UPGRADE
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE			FUTURE RELEASE			MAINTENANCE & OPERATION					TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
One-time IT Costs	$ 12	$ 12	$ 29	$ 34	$ 62	$ 29	$ 29	$ 28	$ -	$ -	$ -	$ -	$ -	**$ 235**
Continuing IT Costs	$ -	$ -	$ -	$ -	$ -	$ 76	$ 77	$ 78	$ 78	$ 79	$ 80	$ 81	$ 41	**$ 590**
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 430**
Estimated Annual Totals	**$ 93**	**$ 94**	**$ 112**	**$ 117**	**$ 146**	**$ 122**	**$ 106**	**$ 106**	**$ 78**	**$ 79**	**$ 80**	**$ 81**	**$ 41**	**$ 1,255**

RESTART CWS/WEB
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE					FUTURE RELEASE		MAINTENANCE & OPERATION			TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
One-time IT Costs	$ 13	$ 14	$ 43	$ 45	$ 54	$ 59	$ 36	$ 36	$ 15	$ -	$ -	$ -	**$ 315**
Continuing IT Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ 33	$ 61	$ 61	$ 61	$ 62	$ 62	**$ 340**
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 85	$ 57	$ -	$ -	$ -	$ -	$ -	**$ 555**
Estimated Annual Totals	**$ 94**	**$ 96**	**$ 126**	**$ 128**	**$ 138**	**$ 144**	**$ 126**	**$ 97**	**$ 76**	**$ 61**	**$ 62**	**$ 62**	**$ 1,210**

NEW SYSTEM → CUSTOM
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE		FUTURE RELEASE			MAINTENANCE & OPERATION						TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
One-time IT Costs	$ 13	$ 13	$ 31	$ 74	$ 62	$ 54	$ 4							**$ 251**
Continuing IT Costs	$ -	$ -	$ -	$ -	$ 47	$ 50	$ 51	$ 52	$ 61	$ 54	$ 56	$ 57	$ 29	**$ 457**
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 59	$ -	$ -							**$ 388**
Estimated Annual Totals	**$ 94**	**$ 95**	**$ 114**	**$ 157**	**$ 168**	**$ 104**	**$ -**	**$ 52**	**$ 61**	**$ 54**	**$ 56**	**$ 57**	**$ 29**	**$ 1,096**

NEW SYSTEM → BUY/BUILD
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE		FUTURE RELEASE	MAINTENANCE & OPERATION							TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
One-time IT Costs	$ 14	$ 14	$ 93	$ 30	$ 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 170**
Continuing IT Costs	$ -	$ -	$ -	$ 42	$ 43	$ 44	$ 52	$ 45	$ 46	$ 47	$ 47	$ 57	**$ 423**
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 59	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	**$ 305**
Estimated Annual Totals	**$ 95**	**$ 96**	**$ 176**	**$ 131**	**$ 62**	**$ 44**	**$ 52**	**$ 45**	**$ 46**	**$ 47**	**$ 47**	**$ 57**	**$ 898**

Next Steps

The Buy/Build alternative is recommended. It provides a solution which best meets current and future needs. It will provide significant benefits to children, their families, and communities as CWS workers become equipped to more effectively perform their jobs now and in the future. This alternative represents the shortest duration to deliver business value and has the most favorable impact to users. The technology supports effective, efficient, and economical upgrades as necessary throughout its lifetime.

Next steps include state approval of the Feasibility Study Report (FSR) and Budget Change Proposal (BCP)/Premise, as well as federal approval of the Planning Advance Planning Document (PAPD) and Implementation Advance Planning Document (IAPD).

The CAST released an RFI in September 2011 to determine the viability of using a transfer system or COTS product as a basis for California's Buy/Build solution. The RFI asked the vendor community if they had an existing system (e.g., transfer system or COTS) capable of supporting key CWS business areas. Eight responses were received and several of them are potentially viable solutions that address the needs of the State.

The CAST released a second RFI in November 2011. Initial market responses from the first RFI, indicate that sufficient vendor capability exists to support the Buy/Build alternative. Further gap analysis is ongoing.

Through a competitive procurement process managed by the Department of General Services (DGS), the State will use a Request for Proposal (RFP) that will result in a best-value award to a single systems integrator (SI) responsible for all phases of the solution: design, development, implementation, and operation. The SI contract award date will occur in the third quarter of 2014.

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Section II
Background

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II. BACKGROUND

A. CWS Business Program Background

The CWS program is the primary intervention resource for child abuse and neglect in California. Existing law provides for child welfare services which are directed toward the accomplishment of the following purposes:

- Protecting and promoting the safety and welfare of all children, including disabled, homeless, and dependent children.
- Preventing, remedying, or assisting in the resolution of problems that contribute to the exploitation or delinquency of children.
- Preventing the unnecessary separation of children from their families where their removal can be prevented by identifying family needs.
- Assisting families in resolving those issues that lead to child abuse and neglect and reunifying families whose children have been removed, whenever possible, by providing necessary services to the children and their families.
- Maintaining family connections, when removal cannot be prevented, by identifying children for whom tribal placement and relative placement are preferred and most appropriate.
- Assuring permanence for dependent children who cannot be returned home, by promoting timely adoption, guardianship, or alternative permanent placement for these children.

Oversight of California CWS is provided by the CDSS Children and Family Services Division. California's state-supervised child welfare program is administered at the local level by 58 counties, each governed by a county board of supervisors. The State's counties differ widely by population and economic base, and include a mix of urban, rural, and suburban settings and topographies that span desert, forest, mountain, coastal, and inland valley formations. Within a single statutory and regulatory framework, CWS is charged with providing the full array of services necessary to meet the individual and diverse needs of at-risk children and families.

B. SACWIS Requirements and CWS/CMS History

California statute (SB 370, Chapter 1294, Statutes of 1989 and reflected in the California Welfare and Institution Code 16501.5) mandated a single statewide-automated child welfare services information system several years prior to the creation of the federal SACWIS program. The federal SACWIS was established in 1993 legislation (Omnibus Reconciliation Act of 1993). SACWIS provided an optional opportunity for California to obtain increased FFP to develop a statewide-automated CWS system that provided services documentation, case management, business process management, and data reporting. SACWIS provides a 50 percent federal share of costs for ongoing system M&O.

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While participation in the federal SACWIS program is optional for California, when California elected to participate, it became subject to compliance with federal functionality and statewide utilization requirements. Failure to meet compliance requirements subjects California to the loss or reduction of FFP and may also require California to reimburse the federal government for all or a portion of federal SACWIS FFP provided for the planning, development, and operation of CWS/CMS and CWS/Web (or any new SACWIS). This enhanced funding means that California is subject to more rigorous federal functional and fiscal approval criteria for the life of its SACWIS.

SACWIS requirements are designed to create a single, comprehensive CWS automated system to be used in all geographic areas of the State. In California, as in other state-supervised/county-administered child welfare states, this includes both state- and county-administered child welfare services. SACWIS functionality requirements are defined at a relatively high level. Each of them includes automation of multiple sub-tasks and business processes necessary to implement a functional category. Federal SACWIS requirements mandate all federal child welfare data reporting requirements be met by a participating state's SACWIS.

SACWIS compliance is also dependent on full utilization of the system throughout California. Use of other automated systems or local systems which fully or partially duplicate the functionality of the SACWIS is prohibited by ACF regulations. The SACWIS must be California's "single system of record" for the Child Welfare Services program. These requirements are intended to avoid duplicative information technology costs and systems at the state and local levels; multiple inconsistent, incomplete, or contradictory case records due to use of multiple systems, and the need for staff to use multiple automated case-management systems to conduct the full range of child welfare services and business processes. In addition, federal SACWIS approval and compliance policy includes a federal determination that a system be "efficient, effective, and economical," as well as able to meet the overall operational requirements of a state and its counties.

Since the mid-1990s, California has received millions of dollars annually from the federal government to plan for a fully SACWIS-compliant system. There are significant negative fiscal and program impacts in the event California withdraws from participation in SACWIS or fails to meet SACWIS compliance requirements:

- Possibility of an immediate reduction in federal financial support for CWS/CMS.
- Risk that the federal government may exercise its option to require full or partial payback of SACWIS funds provided to the State.
- Need for the counties to implement and/or continue multiple, independent automation projects to meet the needs of evolving practice and mandates.

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- Increase in the cost to California to compensate for the loss of federal SACWIS funds to maintain and update CWS/CMS in order to keep pace with legislated program changes and operational changes.

History shows that the federal response has varied in regard to states that have either failed to achieve compliance or voluntarily dropped out of SACWIS. Federal responses range from immediate reduction in FFP and a payback of federal development funds, to loss of SACWIS FFP until such time as a state reached SACWIS compliance or resumed intent to reach it, and continuation of SACWIS FFP as long as the federal government determined that a state was making timely progress toward SACWIS compliance. At this point in time, California is in the last category.

Prior to CWS/CMS implementation in 1997, counties were asked to select a county-specific technical-support model that will support their day-to-day computing needs for CWS/CMS. Of the support models provided, one was called "coexistent," under which the county provides the infrastructure support, and another "dedicated," under which the county infrastructure support is provided by the State and the State's system vendor. Initially, many counties selected the dedicated model because the county's technical support staff was small or non-existent. Since the initial implementation, some counties have migrated to coexistent status. However, the majority of counties that initially opted for a dedicated model remain in that status. Currently, 30 of the 58 counties are dedicated and therefore reliant on the State and the state system vendor for CWS/CMS infrastructure support. In addition to the selected technical-support model selected by the counties, all counties are dependent on the State and its vendor for system support.

By 1998, CWS/CMS was being used by CDSS and all 58 counties, with nearly 15,000 users and 150,000 active online cases. By then, technology had already advanced beyond that used to build the system. The same technology remains in place today.

In 2004, federal SACWIS status and funding was withdrawn from California as a result of a determination that:

- California's CWS/CMS functionality was not in compliance with federal SACWIS standards.
- California was not making timely progress in completing SACWIS functionality.
- M&O re-procurement, approval of county child welfare automation projects, and contracting processes were not in compliance with federal funding requirements.

In October 2004, SACWIS funding was conditionally restored retroactively as a result of negotiations between the State and the federal government (the Go-Forward Plan), which included a recommitment by California to implementing a SACWIS-compliant system.

In response to the temporary suspension of SACWIS funding and subsequent state/federal agreement in the Go-Forward Plan, the Legislature mandated the development of a TAAA. The TAAA included a number of approaches to re-architecting

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CWS/CMS to better meet the business needs and SACWIS compliance. Based on the TAAA recommendation, a decision was made to continue to operate and maintain CWS/CMS while simultaneously building a new California SACWIS using a Web-services-based technical architecture. The plan for a new system became the CWS/Web project.

Once the TAAA was completed in 2005, the State participated in additional planning and negotiation with ACF on how to address outstanding SACWIS requirements within the proposed solution. That process resulted in ACF approval, including federal funding of the Planning Advance Planning Document (PAPD) for the development of California's new SACWIS, CWS/Web. Subsequent to the PAPD approval, state and county staff began development of system requirements that culminated in the release of the CWS/Web RFP in November 2010. In June 2011, however, the SFY 2011/12 California Budget indefinitely suspended CWS/Web. The Legislature directed the preparation of this report in AB 106.

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Section III
Study Approach

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III. STUDY APPROACH

The task of the CWS Automation Study was to assess CWS business needs, assess the existing system (CWS/CMS), research viable automated system alternatives to address the needs, and provide recommendations for next steps.

To conduct the study, CDSS and OSI involved CWS/CMS stakeholders (including PIAC, TAC, and OSC) to determine the critical goals, objectives, activities and business needs of CWS. The CAST then determined which system functionality was missing or incomplete in support of critical CWS operations, and developed solution alternatives. The CAST developed a formal evaluation framework to assist in scoring and ranking alternatives, using criteria based on business drivers that were validated by PIAC, TAC and OSC during workgroup sessions. Using this evaluation framework, the CAST analyzed, scored and ranked each alternative within five major areas of importance, as described in Appendix A: Critical Functionality Assessment and Methodology. The team then vetted these alternatives with stakeholders.

The approach to developing costs differed depending on the alternative studied. However, the CAST used some global approaches. The CAST assumed that the systems integrator would provide project and operations facilities regardless of the alternative chosen. The CAST leveraged the TAAA cost methodology to develop facilities costs. The CAST also assumed the use of the same contractor staffing levels for support services as outlined for the CWS/Web project, for each of the four alternatives presented in this report. Each alternative also required specialized approaches.

The CWS/CMS Upgrade alternative used the development and ongoing maintenance costs from the TAAA with a 3.5 percent increase to account for vendor labor cost escalation. The CAST further adjusted the cost based on timelines developed for this alternative.

For the CWS/Web Restart alternative, the CAST derived application maintenance costs from the TAAA, adjusted due to project timelines. The CAST derived development costs for the New System Custom alternative from the TAAA, increased 3.5 percent to account for vendor labor cost escalation, with adjustments to reflect the timeline for this alternative. The CAST used application maintenance costs from the TAAA, reduced by ten percent, assuming that some requirements outlined in the TAAA will be eliminated, and that the development approach specific to this alternative will lead to a faster time-to-benefit milestone.

The CAST approach to costing the New System-Buy/Build alternative was slightly different than that used for the other three alternatives. In developing cost estimates for this alternative, publicly-available price lists were obtained from various sources and the CAST assumed a volume-license discount will be available, similar to the Software Licensing Program managed by DGS. The CAST assumed that ongoing system maintenance costs will be limited to annual software assurance programs of approximately ten percent of the net software purchase price, with a third-party vendor managing the network infrastructure for a negotiated cost. The software assurance program will offer annual and/or as-needed fixes and upgrades at no additional cost

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above and beyond the annual fee. However, state-initiated custom-built services to support the solution will be a separate charge.

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Section IV
Status of CWS/CMS

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IV. STATUS OF CWS/CMS

A. This section addresses sections 1a – 1d of AB 106.To What Degree is CWS/CMS in Compliance with Current Law, Regulation, and Policy?

At this time, CWS/CMS does not support CWS practice nor is it capable of meeting a number of legislative, regulatory and policy objectives. Legislation applicable to CWS is provided in Appendix E: Legislative References

In order to assess the degree of CWS/CMS compliance with current law, regulation, and policy, the following were considered:

- The degree to which CWS/CMS meets federal and state laws, policies, and regulations.
- The degree to which CWS/CMS meets federal and state SACWIS compliance.
- The degree to which workarounds, including manual processes as well as state and county external systems, are used to achieve program compliance.

Throughout this section, "degree" is measured in terms of provided or missing functionality. Reviewing program compliance is outside the scope of this report.)

1. Federal SACWIS Compliance

Currently CWS/CMS is missing several functional areas required to meet SACWIS compliance. In addition to meeting county-identified needs for critical functionality, full SACWIS functionality will provide significant benefits and continued FFP

CWS/CMS completely lacks (100 percent) functionality in the following areas:

- **Adoptions Case Management** - CWS/CMS does not provide adoptions case management functionality and is a barrier to meeting requirements of many recent state and federal laws, data reporting, and adoptions case management expansion under realignment. It currently only collects Adoption Foster Care Analysis and Reporting System (AFCARS) data elements and provides minimal support for the Adoption Assistance Program (AAP). As a result, statewide data reporting is missing client information and some counties have had to develop and maintain interim external systems to support their adoptions workload, which further results in data inaccuracy.
- **Archiving and Purging of Data** - CWS/CMS currently does not provide for the processes of archiving and purging its data. To be compliant, the system must support a range of system functions which includes the ability to archive data for recall purposes and to purge it where appropriate. This functionality will enhance storage capability, efficiency in relevant and expeditious searching of data, and the ability to economically retain historical information.

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- **Eligibility Determination** - CWS/CMS does not meet SACWIS requirements related to eligibility determination for child welfare assistance programs. SACWIS requires that all eligibility documentation and determination processes be housed within one system of record either within the SACWIS system or through an interface with a single social service eligibility determination system.

- **Federal Reporting** - The system must generate required state and federal reports, ad-hoc management reports and statistical reports. CWS/CMS does not fully comply with all the requirements for federal reporting. For example, for National Youth in Transition Database (NYTD), it does not contain the functionality to survey the youth as directed by regulation, nor have the complete functionality needed to collect all required information about services, outcomes, and demographics for emancipated foster youth.

- **Required Interfaces to Title IV-A, Title IV-D, and Title XIX** - CWS/CMS does not support automated interfaces to the required systems. The interfaces will provide an automated exchange of common and/or relevant data to support child welfare services. These interfaces enable the CWS worker to determine who lives in the home, and what is the financial situation in the home, information which is critical for child safety assessments, case planning and management.

- **Financial Management** – CWS/CMS currently does not include financial-management functionality to support emergency assistance, foster care, KinGAP, AAP, and CWS service-connected expenses. This functionality will enable the worker to determine available services, prevent overpayments and resolve underpayments to Foster Parents and Service Providers.

2. State Legislative Compliance

In addition to SACWIS compliance, there remain other missing areas of compliance required by California legislation. CDSS and OSI have been unable to implement changes in CWS/CMS to keep pace with state laws that change practice and requirements. Specific examples include:

- AB 636 (Chapter 678, Statutes of 2001): Child Welfare System Improvement and Accountability Act – need to be able to provide accurate data that is required to manage the programs.
- AB 12 (Chapter 559, Statutes of 2010): California Fostering Connections to Success Act / and AB 212 (Chapter 459, Statutes of 2011) and SB 654 (Chapter 555, Statutes of 2010): Independent Living Program services – need to be able to allow CWS to determine and manage eligibility and the tracking of foster care and services costs.

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- AB 2070 (Chapter 482, Statutes of 2008): Reunification Timeframes for Incarcerated Parents – need to be able to track, notify the incarcerated parent or guardian and extend the time allowed for reunification of incarcerated parents with their children.
- SB 1353 (Chapter 725, Statutes of 2010) and AB 1933 (Chapter 563, Statutes of 2010): Education Stability/School of origin and
  AB 1612: Educational Transportation Payments – need to be able to track the school of origin for foster youth; verify and manage foster parent reimbursement for transportation to and from school.
- AB 1325 (Chapter 287, Statutes of 2009): Tribal Customary Adoption – (see the federal SACWIS adoption case management functionality above.)
- SB 500 (Chapter 630, Statutes of 2005) and SB 720 (Chapter 475, Statutes of 2007): Whole Family Foster Homes – need to be able to identify and manage services and payments for the underage parent and their child who are both foster children that are placed in the same home.
- SB 380 (Chapter 486, Statutes of 2008): Intensive Treatment Foster Care – need to be able to document the need for the intensive treatment services and manage the higher payment rates.
- AB 1331 (Chapter 465, Statutes of 2007): Tracking of SSI Applications for Disabled Exiting Foster Youth – need to be able to track and manage the pending applications for SSI for disabled Foster Youth.
- AB 129 (Chapter 468, Statutes of 2004): Dual Jurisdiction of Wards and Dependents WIC 241.1 Protocols – need to be able to have probation and child welfare to be able to have dual assignment to a child welfare case.
- SB 678 (Chapter 838, Statutes of 2006): ICWA compliance/placement of Indian child in Indian home – need to verify tribal membership status, identify availability of CWS jurisdiction, track placement and Adoption in Indian Tribal homes.
- AB 743 (Chapter 560, Statutes of 2010): Sibling Placement/Visitation – need to be able to document and manage our efforts to keep siblings together and facilitate visitation where that is not possible.
- AB 938 (Chapter 261, Statutes of 2009): Early Search and Notification of Relatives – to enable documentation and notification to relatives of a child's removal from a home in a timely manner.
- AB 2651 (Chapter 701, Statutes of 2008): Adam Walsh Out-of-State CACI checks – need to extend background check clearance to other states.
- AB 2322 (Chapter 551, Statutes of 2010): Data Sharing of Families and Children at risk – need to have access to a database that includes information about convictions of family members or persons living in the child's home for crimes that involved a child as a victim.

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- AB 2985 (Chapter 387, Statutes of 2006): Foster Care Identity Theft – need to be able to request a consumer credit disclosure, pursuant to federal law, on behalf of a youth in a foster care placement in the county.
- SB 703 (Chapter 583, Statutes of 2007): Interstate Compact on the Placement of Children (ICPC) – need to be able to track and report incoming ICPC home study request for children.

External systems and time-consuming manual processes have been developed as child welfare agencies strive to comply with state mandates. These efforts are inefficient and costly.

B. To What Degree Does CWS/CMS Support Current CWS Practice?

CWS/CMS does not support current CWS practice. This section outlines both the missing functionality and needed modifications in CWS/CMS required to support critical CWS operations. In addition, this section addresses the ease of access to case and service information, multidisciplinary case management, and ease of use, as requested by AB 106.

Missing Functionality Critical to CWS Operations

The following outlines the missing functionality that is necessary to support critical daily activities of CWS.

1. Service Requests/Referrals

CWS/CMS is missing the functionality to request services or to complete referrals to the service providers. This basic functionality is necessary to record the services provided to the families, the outcome of the services, and the cost of services. Adding this missing functionality into a CWS automated system will improve services, data analysis, and the State's ability to report outcomes.

2. Adoptions

CWS/CMS does not have the ability to record information about adoption case services, including the home study process and post-adoption services. The lack of full adoption case-management functionality is a major limitation for state and county adoption agencies, and causes manual processing of forms and delays in completing adoptions. Adding this functionality will improve collaboration between county and state adoption workers and facilitate adoptive placements and permanency for children.

3. Eligibility

CWS/CMS is missing functionality to process applications to determine eligibility for CWS-related benefit programs: Emergency Assistance, Aid to Families and Dependent Children – Foster Care, Kin-GAP, and AAP. The ability to automate the eligibility determination process will improve its accuracy, timeliness and the delivery of appropriate services. The missing functionality creates intensive manual processes that

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impose heavy workloads on CWS and eligibility workers, and promotes excessive data entry, storage of redundant information, and inconsistent data. Currently, more than one system must be used to document and determine foster-care eligibility.

4. Financial Management

CWS/CMS is missing financial management functionality to capture and record authorizations, invoicing, and payment-transaction information. This additional functionality in a statewide CWS automated system will facilitate better tracking and management of federal, state, and county funding.

5. Multidisciplinary Case Management

CWS/CMS does not support the emerging need of CWS to partner with community and governmental resources to serve families in a comprehensive multidisciplinary manner. Many CWS professional and community partners are directly involved in the service provisions for children and families, and need access to certain portions of CWS/CMS to effectively participate in integrated case management. It is noted that while a solution needs to enable system information sharing with such partners, overall information security and confidentiality must be ensured.

6. Role-Based Access/External User Data Entry

CWS/CMS does not support role-based system access and data views. Its technical architecture does not provide the granular security-control levels required to manage and control system access and data views for end users, which directly impacts integrated service provision. Consequently, CWS/CMS cannot allow service delivery partners to enter data or retrieve information without compromising security or confidentiality. This functionality is needed to support CWS program collaboration.

7. Interfaces

CWS/CMS does not provide the ability for bi-directional exchange of data with other state, county and federal systems. For clarification, see Sections IV. C2 and C3: Other Missing Functionality

8. Other Missing Functionality

The following missing functionality is also critically needed to support CWS practice:

- Ability to record service providers (contractors and non-contractors) in order to create a resource directory to enable users to search, view, and request services. This functionality is essential to the Case Plan and Financial Management processes.
- Ability to request criminal background checks and record the results.

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- Ability to schedule meetings and to integrate system alerts and tasks with user calendars.
- Ability to record the services requested and provided to emancipated youth.
- Ability to record the joint assessment process when a child is being evaluated by CWS.
- Ability to record and track CWS activities and documents regarding detention warrants.
- Ability to capture and store electronic signatures.

These gaps in functionality force users to rely upon state and county external systems or hard-copy files to record CWS activities and service provision. The need to record information in numerous systems or in hard-copy files negatively impacts service workloads and increases the risk of overlooking information that is necessary to assess children's safety.

Improvements Needed to CWS/CMS to Support Critical CWS Operations

9. System Search Functions

CWS/CMS search functionality provides unreliable results due to its existing design and technology. When an emergency-response referral is received, the first task a user will perform is a search in CWS/CMS to verify if the person has prior CWS history. A search for a person with a common name will often identify so many records that the system cannot return any results. This limits the ability to use prior history as a factor in the decision-making process, which is essential to CWS practice, and also leads to the creation of duplicate client records in the system. If a CWS worker is unable to view a person's existing record, the historical data cannot be considered in the safety decision-making process which is essential to CWS practice. System search functionality must be improved in order to provide the level of client case management necessary to achieve desired outcomes and comply with legislative mandates.

10. Contact Management

The most common tasks performed daily by CWS involve interaction with children, families and service providers during emergency-response referral investigations and the performance of case management services. CWS/CMS does not allow entry or tracking of information at the level of granularity required for managing contacts, reporting information based on these contacts, or measuring outcomes. This is a barrier to accurate reporting, performance measures, and ongoing case management.

11. Placement Management

Another common task is placing a child in a caregiver's home. When a child is detained, the CWS worker must locate a caregiver's home for placement. The existing CWS/CMS placement-match functionality is not sufficient. The underlying CWS/CMS

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data structure supports a facility-centric approach to placement rather than focusing on the qualities of the caregiver. As a result, the data elements in this area support the data structure rather than practice. For example, CWS/CMS does not allow a caregiver to have more than one role, such as providing both a licensed foster family home and relative home. Also, CWS/CMS does not maintain a historical legal authority for the placement. Consequently, most counties rely on external systems or manual tracking to maintain vacancy lists separate from CWS/CMS to support the search for available caregiver homes. In addition, the vacancy lists do not include the details to perform the necessary placement match. Cross-county placements are especially hampered by this process.

CWS workers record children's placements in CWS/CMS, but the data entry required for a placement is extensive and designed poorly. Needed improvements include streamlining data entry during the placement process, especially when a sibling group is involved, and allowing the ability to record a child's transfer from the legal responsibility of one jurisdiction to another (e.g., from WIC, Sections 300 to 600), without a break in the placement or the need to create a new case.

12. Case Plan Development

CWS policy requires a case plan to be developed for each child receiving case services. CWS/CMS case-plan functionality requires enhancements and modification in order to support basic CWS practice. Currently, users have to manually compile reports for independent living services using a combination of systems including CWS/CMS, county external systems, and manual tracking methods. As a result, many external systems have been created to assist in the compilation of these reports.

13. Safety/Risk Assessments

CWS/CMS has minimal functionality regarding safety/risk assessments. Currently, CWS agencies are using external systems (Structured Decision Making ®, and Comprehensive Assessment Tool) to complete safety/risk assessments. In this area, CWS/CMS does not support CWS practice or facilitate consistent statewide decision making and reporting. If a referral or case is transferred to another county, the receiving county is unable to view the safety/risk assessment that was performed by the transferring CWS agency. Adding this functionality into the CWS statewide automated system will enable consistent statewide decision making, and assist with case planning and reporting to the court.

14. Ease-of-Use Problems

The following aspects of CWS/CMS denote areas of difficulty in using the system to support the daily activities of CWS:

- **CWS/CMS Navigation**

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A user of CWS/CMS is required to open numerous screens in a case to view a specific record. This is ineffective, inefficient, and cumbersome, causing delays in providing service.

- **Mobility**

While the provision of services to children and families occur generally outside the office setting, CWS/CMS users currently have limited access to CWS/CMS while in the field, and use a Virtual Private Network (VPN) or dial-up-based technology. The dialup connection to CWS/CMS is extremely slow. The existing system also allows a limited number of concurrent users access by means of server-based computing (SBC), such as Citrix. While SBC technology is promising, CWS/CMS infrastructure does not allow wider use.

- **Reporting**

CWS/CMS does not have a single system-wide reporting solution to support users. Reporting needs are addressed through different sets of tools, data-access paths and repositories. The existing reporting solutions are outlined in detail in Section IV.D.1: CWS/CMS Reporting Solutions. CWS needs referral and case information in report format to deliver trend analysis, assist CWS workers and supervisors in performing case management activities, assist key stakeholders in overall project visioning, and provide the ability to analyze and report on outcome measures. This information is essential to policy decision making.

- **Workflow**

CWS/CMS does not have the ability to support CWS workflow or multiple assignments of tasks. A workflow-management system would be able to better manage and define a series of tasks to produce a desired final outcome or outcomes.

- **Role-Based Access/External User Data Entry**

CWS/CMS is difficult to navigate due to the lack of support for access roles and data views necessary to address CWS practice.

15. Other Improvements Needed

CWS/CMS stakeholders identified the following functionality that requires improvement to support CWS operations:

- Ability to record and accommodate case management data for Title IV-E children under the jurisdiction of Probation.
- Ability to update the Judicial Council forms used by CWS in a timely fashion, as the Judicial Council modifies them.
- Ability to record and capture more health and education information.
- Ability to accurately record and capture court hearing findings and orders.

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- Ability to record and capture the family relationships, including maintaining historical relationships and legal designations.
- Ability to record and capture the mandated data for incoming Interstate Compact on the Placement of Children (ICPC) cases.
- Ability to limit access to data elements in a record at a granular level due to confidentiality requirements.
- Inclusion of quality-assurance functionality, including data edits, alerts, and audit capability.
- Ability to manage and save county-specific forms in an efficient manner.
- Ability to record and track new initiatives for reporting and performance measures.
- Ability to maintain case-record continuity while transitioning to and from different jurisdictional authorities.
- Ability to record during the screening process the Differential Response path, the community partner contacted, and the outcome.
- Ability to save, store, and access different types of files such as Microsoft Word documents, pictures, and Adobe Acrobat documents. The increasing demand for electronic storage of documents, including images, has exceeded the capacity contemplated by the original CWS/CMS architecture design.

C. To What Degree does CWS/CMS Link to Information that Enhances Investigation, Case Management, and Ease of Use?

1. Existing Information Links

CWS/CMS currently has two information links:

- California Department of Education (CDE) provides the OSI CWS/CMS Office with a compact or digital versatile disk of school address information. The CWS/CMS Office then loads the information into CWS/CMS after manual manipulation of the data. Since the information is received and updated in the system periodically (approximately every six months), the school location information available in CWS/CMS is not up-to-date. The disk does not contain the education information for the child/youth. This includes caregiver information as well as some facility types. Furthermore, homes licensed by the counties are not included. Changes to the information are downloaded on a daily basis.
- CDSS Licensing Information System (LIS) provides information on state-licensed foster homes, foster-family agencies, and group homes, which includes license status and addresses; however, any additional information

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critical to assessing a home for placement must be manually entered. Changes to the information are downloaded on a daily basis.

2. Missing Links to Information

There are links or interfaces to information that currently do not exist in CWS/CMS that will aid users and significantly enhance investigation, case management, and service delivery efficiency. Improved processes involve automated communication access to medical eligibility information and the ability to perform location searches for missing individuals. These interfaces will meet mandatory federal SACWIS requirements: Title IV-A – Statewide Automated Welfare Systems (SAWS), Title XIX – California Department of Health Care Services (DHCS) – MEDS, and Title IV-D –California Child Support Automation System (CCSAS).

- **SAWS Title IV-A**

An interface with SAWS will provide information about multiple programs and client identification when CWS has a mutual client with the California Work Opportunity and Responsibility to Kids (CalWORKS) program. The SAWS interface will enhance investigation, improve case-management services, and facilitate better service delivery by preventing duplication.

- **California DHCS MEDS - Title XIX**

An interface with MEDS will provide access to Medi-Cal eligibility verification, along with family and individual demographic information (e.g., address, telephone). This interface will provide client information to determine eligibility for children in foster care, allowing for the automated exchange of common case information, and capturing required data for federal reporting.

- **CCSAS - Title IV-D**

An interface with CCSAS will automate the collection of child-support information. This includes the mandatory reporting of child-support data for AFCARS, as well as verification across data systems on shared client information. This information will facilitate the collection of child support on the behalf of dependent children and the automated exchange of child-support referrals. This interface will allow the CWS to access information to locate missing persons.

- **Social Security Administration**

An interface with the Social Security Administration will automate the ability to submit requests for Social Security benefits on behalf of a child. AFCARS data could be exchanged, as a result. Demographic information could also be obtained on clients who will assist in service delivery.

- **State Controller's Office and the County Payment Systems**

An interface with the California State Controller's Office and county payment systems will automate CWS financial transactions. The State and counties are required to track and manage financial information including payment of CWS service-connected expenses, administration and issuance of assistance

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payments, and children's income, when required. Accurate payments help ensure children's financial needs are met.

3. Other Missing Information Links Critical to CWS Operations

There are many links (i.e., interfaces) listed below which will greatly enhance investigation, case management, and due diligence (location) search functionality. In addition, many of these interfaces will help fulfill the needs of child welfare practice. Among the most important of the missing links are links with the following agencies:

- Administrative Office of the Courts – California Court Case Management System
- Department of Alcohol And Drug Programs
- Department of Corrections And Rehabilitation
- Department of Public Health
- Department of Health Care Services
- Department of Justice
- Department of Motor Vehicles
- Employment Development Department

For a listing of all desired potential links, refer to Appendix A: Critical Functionality Assessment and Methodology, Table 29 – Missing Critical Functionality per Legislative Mandate.

D. To What Degree does CWS/CMS Provide Ready Access to Data for Reporting, Planning, Management, and Program Outcome Monitoring?

While the degree cannot be quantified, CWS/CMS clearly does not support the program and user needs related to reporting, analysis, planning, or management. Nor does it meet the needs for program outcome monitoring, including compliance and performance. This is primarily due to the current need to use multiple data sources and reporting tools, all requiring different levels of expertise as well as additional licensing. The development of effective reports and analysis to support program business functions requires a single, robust data warehouse as well as tools for report development and analytics. The existing system is cumbersome and relies upon various technology platforms from which to draw data. This makes data reporting, analysis, and accuracy time-consuming and unreliable.

1. CWS/CMS Reporting Solutions

Data management and reporting/analysis capabilities are provided by numerous methods. CWS/CMS reporting solutions are described below and provide different types of reports for different constituent needs.

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- CWS/CMS Database - The existing system allows for specialized reporting through statistical analysis software (SAS). However, this reporting mechanism only provides access to a few users.
- CWS/CMS Database Program Management Reports – Predefined program management reports are available within CWS/CMS. These reports can be generated by users, but are static and do not provide all of the necessary information or data access required. Any changes or enhancements must be performed by the contractor, and are costly to make.
- County Access to Data (CAD) Data Warehouse – The CAD data warehouse was developed to help counties fulfill the reporting requirements of their many constituents. It contains one statewide view and 58 county views of the data contained within CWS/CMS. These views allow each county to view only its own data. Users of the CAD data warehouse access the data using the Business Objects report tool suite, located on designated CWS/CMS workstations or via a Web tool. There are a limited number of standardized reports, which are supplemented by ad-hoc reporting capabilities. Refresh of the database happens once daily.
- Child Welfare Data Analysis Bureau (CWDAB), within the CDSS, Research Services Branch, supports the provision and improvement of child welfare services in California by providing data for policy development, budget planning, and measurement of program success against state- and federally-mandated standards. CWDAB uses data from CWS/CMS, related surveys, and administrative sources. CWDAB is also responsible for development and submission of federally-mandated data reports, e.g., National Child Abuse and Neglect Data System (NCANDS), AFCARS, NYTD, and the Federal Monthly Caseworker Visits.
- Center for Social Services Research (CSSR) at University of California, Berkeley (UCB) - The State contracts with UCB to provide quarterly reports that are posted and accessible by CWS agencies and the public. These reports include outcome measures, longitudinal reports, and other data sets at aggregate levels. These reports are generated using SAS software and are based on data directly extracted from the CWS/CMS mainframe on a quarterly basis.
- Children's Research Center (CRC) – SafeMeasures® - This is a Web-based data-reporting system from a third party that provides current information on key performance standards. The system organizes case data according to performance on state regulations and federal outcome measures, allowing managers and supervisors to track key metrics and case requirements. Refresh of the database happens once daily.
- County-specific data marts - Several large counties such as Los Angeles, Orange, San Diego, Santa Clara, Alameda, and San Mateo have developed their own reporting systems to support their specific needs with data extracts from CWS/CMS database. Los Angeles and Alameda counties have daily

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extracts, while the remaining counties have weekly extracts that are contracted separately with International Business Machines Corporation (IBM).

2. Data Access Needs

The following provides a description of the unmet needs for data access:

- CWS workers and managers throughout California need reliable access to standardized reports, scorecards, and/or dashboards to make more informed decisions, improve quality of services, meet outcomes, and manage work more effectively.
- System users must have ready access to aggregated and regional/county data based on roles and groups to better manage workload, program performance, and outcome improvements.
- All counties must have access to the same standard reports to monitor program performance, outcome measures, and workloads.
- To increase productivity, users need Web-based access to reports and information that identifies case activity and improves worker efficiency.
- The State and CWS agencies need data-mining capabilities to query and analyze data based on indicators of abuse for at-risk children, enabling earlier/better intervention.
- An ability to easily integrate with multiple external statewide or community systems will help CWS improve the sharing of information to improve program performance. Potential sources of data for valuable cross-program analysis include interfaces to CalWORKS Information Network , C-IV, Los Angeles Eligibility, Automated Determination, Evaluation and Reporting System, and MEDS. This cross-program analysis will allow CWS agencies to better identify causal relationships and lead to earlier or better service delivery to children and families in need.

The existing problem of having multiple reporting methods results in:

- Inconsistent data across multiple systems (Berkeley, CDSS, CAD, SafeMeasures®, etc.) due to differing methodologies. These inconsistencies result in:
    - Increased effort for data reconciliation and staff support.
    - Lack of confidence in the accuracy of CWS/CMS data, due to different methods for reporting and data extraction.
    - Online audit issues.
    - Possible increased fines and penalties imposed by the federal government for the failure to meet or improve compliance or outcome measures in a timely manner at the county and state level.

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- Manual tracking or county external systems created to track data related to programs for verification.

In summary, CWS/CMS has not kept up with the increasing demands of child welfare legislation, reform, and reporting requirements. From a practice perspective, a CWS solution for case management is needed to provide up-to-the-minute data on all clients and also provide for monitoring, tracking, and performance outcomes.

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Section V
Alternatives

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V. ALTERNATIVES

This section addresses the AB 106 request to, "Determine the best approach to address any missing functionalities that are critical to Child Welfare Services operations. Options shall include building functionality into the existing CWS/CMS system, restarting the CWS/Web procurement, or developing a new procurement." This section describes (A) the architecture of CWS/CMS and (B and C) each evaluated technical alternative in terms of benefits, challenges, approach, how well it meets business requirements, the time to achieve benefits, and the costs and risks involved.

A. Current Architecture of the Existing System, CWS/CMS

This subsection describes the architecture of CWS/CMS as it exists today. More background on its history and development is provided in Section II: SACWIS Requirements and CWS/CMS History .

CWS/CMS achieved statewide operational status in 1998. Since then continuous development activities have occurred in the form of periodic releases. These releases focus on correcting operational defects and addressing new state legislation, federal regulation and agency policy.

The existing system is a multi-tiered client/server application comprised of several components. The three major components are a workstation user interface, application servers, and a mainframe back-end and database.

CWS/CMS operates on Windows XP workstations and utilizes the transaction architecture under the Customer Information Control System (CICS) environment to support business processes. As well as SAS analytical tools, CWS/CMS includes a separate CAD data warehouse environment for reporting. Transactions are processed by the CICS transaction monitor and are programmed using the Common Business Oriented Language (COBOL). The workstation client interacts with the database running on two mainframes at the Office of Technology Services (OTech).

The application servers provide intermediary functionality between distributed workstations and the mainframes. The application servers minimize network traffic and the number of connections between the host and workstations. They also provide a staging area for software distribution to reduce bandwidth congestion. The application servers are hosted locally in county server rooms and are designed to perform several functions including file sharing; print services, domain control, and antivirus updates; and acting as an application gateway.

The core of CWS/CMS resides on two mainframes. The primary role of the mainframes is to provide database and transaction services. All CWS/CMS data is stored in a series of database tables and accessed through CICS transactions generated from the CWS/CMS workstation application.

The following diagram illustrates the current architecture. Access to the application servers, mainframes, and database are only supported across the California State Government Network (CSGNet) and county wide-area network (WAN).

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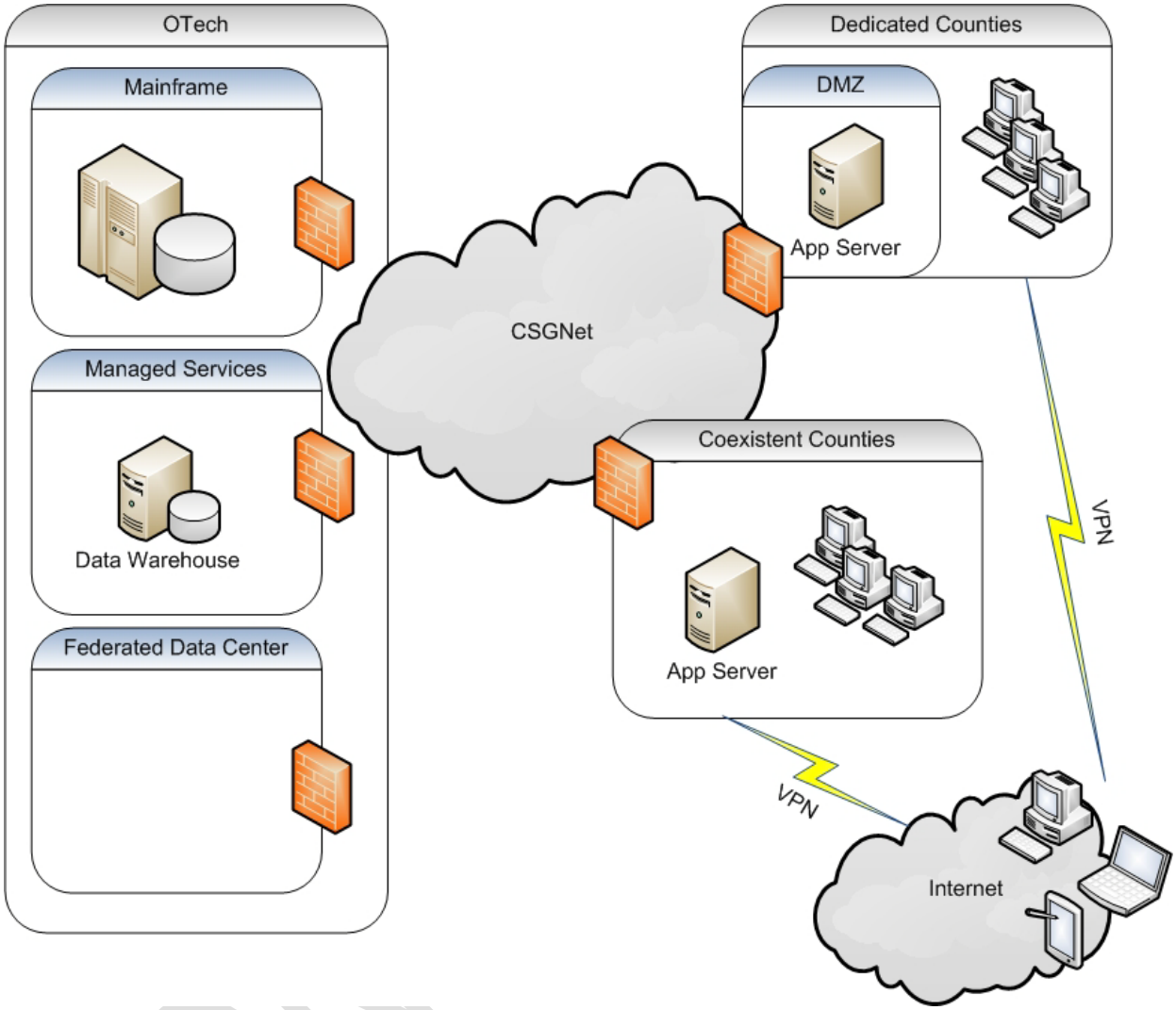
Figure 1 – CWS/CMS Current Architecture



Restrictions of the existing architecture of CWS/CMS include:

- There is no formal "control" layer to act as an intermediary between the graphical user interface (GUI) layer and the data layer and to notify it about changes to the data/views. Rather, the GUI layer incorporates this logic, which results in a tight coupling between business rules, user interface logic, and data. This tight coupling reduces flexibility and impairs the ability to alter business rules and data structures due to the needs of changing law, regulation and policy.
- Each business process is mapped to a long series of transactions which are executed either in parallel or sequentially as individual transactions. No true system management of business processes is possible in such an environment. In the CWS/CMS architecture, a transaction may encompass many business processes, which has resulted in application-code

interdependencies that limit the ability to easily support business and program changes.

- No clear separation exists between business- and user-interface logic on the workstation. This constraint limits the ability to customize the software to county-specific requirements.
- The existing design brings all the case data down to the workstation, and does not make this information accessible outside the workstation (such as via portable or alternative devices). With this design, information cannot be made available anywhere, anytime.
- CWS/CMS was not designed to allow concurrent update access to the same case data by multiple users at the same time. Typically, there are manual workarounds necessary to ensure that multiple users are not simultaneously accessing the same data.

Further detail on the architecture of CWS/CMS is shown in Appendix D: Current CWS/CMS Application Architecture Overview.

Costs for CWS/CMS

The cost estimates below do not include CWS/CMS county or CWS program costs.

Table 4 – CWS/CMS – Costs

*Costs are rounded to the nearest million.

EXISTING CWS/CMS
(Costs Rounded to the Millions)

	MAINTENANCE & OPERATION												*TOTAL
	FY 2012-13	FY 2013-14	FY 2014-15	FY 2015-16	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	
Procurement Costs	$ -	$ -	$ 5	$ 6	$ 6	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 17
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 86	$ 87	$ 89	$ 90	$ 91	$ 93	$ 94	$ 96	$1,139
***Estimated Annual Totals**	**$ 81**	**$ 82**	**$ 88**	**$ 89**	**$ 90**	**$ 86**	**$ 87**	**$ 89**	**$ 90**	**$ 91**	**$ 93**	**$ 94**	**$ 96**	**$1,156**

***Current System Costs do not reflect the following anticipated resource needs under current agreements:**
- ***Costs associated with building any required system functionality or enhancments.***
- ***Hardware/Software replacement costs for equipment as system ages.***

The estimated costs for this alternative, Existing System CWS/CMS, reflect the costs associated with the procurement activities that will need to occur for the procurement of a new M&O agreement, before the existing base contract period expires in November 2016. The annual cost increases reflect the anticipated contract cost increases, as scheduled in the existing M&O agreement. With approved FFP of 50 percent, the total costs to the SFG would be approximately $578 million, incurred between SFY 2012-13 and 2024-25

The CWS Program incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

Cost estimates were based on existing M&O agreement costs and a 3.5 percent increase to account for vendor labor cost escalation.

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B. Technical Alternatives Considered and Rejected

This subsection describes several technical alternatives to CWS/CMS that were considered potential solutions to address critical functionality needs but which were judge inadequate early in the process.

1. Maintain the existing CWS/CMS architecture

This alternative proposes that the State continue to maintain and upgrade CWS/CMS within the limits of the current technical architecture employed by CWS/CMS. This alternative would upgrade the existing "thick client" within the limits of the existing technical architecture employed by CWS/CMS. "Thick-client" architecture describes application software which is not available over the Web but only available on workstations, the "clients" of the system. Upgrades must be locally installed on individual workstations. (Conversely, "thin-client" architecture involves making a centralized application available to users via Web browsers.) With this thick-client scenario, it is assumed that no major technical application architecture changes will be made to CWS/CMS beyond those required to meet programmatic, legislative, and regulatory needs.

The architecture for this alternative will continue to be client /server with mainframes providing database and reporting services to client workstations. In the current architecture, the client utilizes a centralized DB2 database that resides on IBM mainframes hosted at OTech. The majority of business logic, business rules, and presentation logic resides on the workstation, which runs the Microsoft Office Suite. Users rely extensively on Microsoft Word for capturing case notes and deploying forms used to capture information. New business functionality will be written to be compatible with the existing Microsoft Windows operating system and deployed on these workstations.

At the county level, application servers function as intermediaries between a group of workstations (associated with a county or site) and the host. These servers minimize the traffic and number of connections between the host and workstations. They also provide a staging area for software distribution to reduce bandwidth congestion, such as the distribution of software to workstations over local-area-network (LAN) resources.

The CAST reviewed the alternative of keeping the existing architecture in its thick-client form, as a "thick-client upgrade." However, the existing architecture clearly cannot support the future needs of CWS practice. Indeed, it is inadequate for current needs. The technical risks, time to deliver, and cost to implement did not meet business needs. Therefore, it is not discussed further as an alternative.

2. Build a New Custom System using a Serial Development Approach

This option will result in a completely new, custom system-development effort, utilizing the serial (waterfall) development lifecycle model. None of the existing CWS/CMS application elements will be reused with this alternative. Web technologies and layered architecture will separate the user interface, the application logic and the data. Existing operational business data will be (1) extracted, transformed (as applicable) and loaded

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into a new database; (2) hosted in a new database engine; and (3) reside on a new database server. The system will be delivered as a complete system during the deployment phase, after all testing and defect correction has been completed.

The CAST evaluated the serial development approach and determined the incremental lifecycle methodology more closely aligns with the needs of CWS. Therefore, the serial development approach is not discussed further as an alternative.

3. Software as a Service (SaaS)

SaaS is a software distribution model in which applications are hosted by a vendor or service provider and made available to customers over a network, typically the Internet. There are two slightly different delivery methods for SaaS: hosted application management and "software-on-demand." Hosted application management is similar to application service provision, in that a provider hosts commercially-available software for customers and delivers it over the Web. With the software-on-demand method, the provider gives customers network-based access to a single copy of an application created specifically for SaaS distribution.

With SaaS the underlying code is the same for all customers and cannot be customized. Any features or functionality that the SaaS vendor adds to the software based on customer feedback becomes available to all customers.

SaaS, by the very nature of its name, is service-focused instead of application/solution-focused. Initial research has identified numerous potential segment solutions for CWS; that is, solutions that address a segment of the business practice, but not the entire practice. While individual segment solutions can deliver robust, quick-delivery answers to needs, their use will require some form of access integration (i.e., a portal), security management (single sign-on), and integration with other segment solutions to deliver a single look-and-feel to users.

SaaS customers have no direct control over the SaaS vendor's infrastructure (hardware and software). While the availability and performance of the hardware and the scalability of the software are usually not an issue, the security of the mission-critical data can be a critical issue. There are state policies on the location and management of strategic, mission-critical data that need to be researched with state control entities to determine the feasibility of a solution where data is to be hosted outside a state-managed data center. This policy issue must be addressed to make this a viable alternative.

SaaS is a variation of the buy/build model that focuses specifically on the "buy" approach to supporting the needs of CWS practice. Conducting a gap analysis and then deploying the delivered service(s) are processes also used in the Buy/Build alternative, but in SaaS the duration is greatly compressed, reduced from months or years to weeks or months. To be a viable alternative, there either needs to be a single-vendor solution or else sufficient (multi-vendor) segment solutions available that can be integrated to support the full business needs of CWS practice. A single vendor SaaS provider will need to have software services that:

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- Support all the needs of CWS practice.
- Address state data-management policies.
- Mitigate disaster-recovery risks involving data and replacement software.
- Address issues involving access integration and security management.
- Provide a uniform system “look and feel” to users.

An assessment of SaaS as a possible alternative has been initiated. The CAST will continue to research various SaaS solutions, communicate directly with potential providers through the RFI process, and formulate a foundation to determine the feasibility or non-feasibility for this alternative.

C. Alternative 1: Upgrade the Existing CWS/CMS

This alternative is focused on upgrading the current CWS/CMS to Web-based technologies. The existing thick client will be upgraded to a browser-based thin client and converted to n-tiered architecture. Enhancements and updates will have to be planned and delivered after the upgrade is completed and stabilized. The distributed application servers will be centralized to a Web-based application server(s) co-located with the IBM mainframes supporting the DB2 database.

This alternative will:

- Upgrade CWS/CMS client code to Web-based technologies.
- Migrate from 200+ application servers to a central Web-based application server hardware/software environment at OTech.
- Utilize the existing CICS/COBOL/DB2 code base.
- Add and enhance critical functionality after the initial upgrade is completed and the application is stabilized.

Figure 2 – CWS/CMS Upgrade – Technical Environment illustrates the architecture of this alternative, showing that the thick client has been replaced with a Web browser. The distributed application servers have been removed from the counties, and the IBM mainframe and DB2 database have been retained, but only to support the database. Access to the Web-based application server(s), IBM mainframe, and DB2 database are only supported across CSGNet and county WANs.

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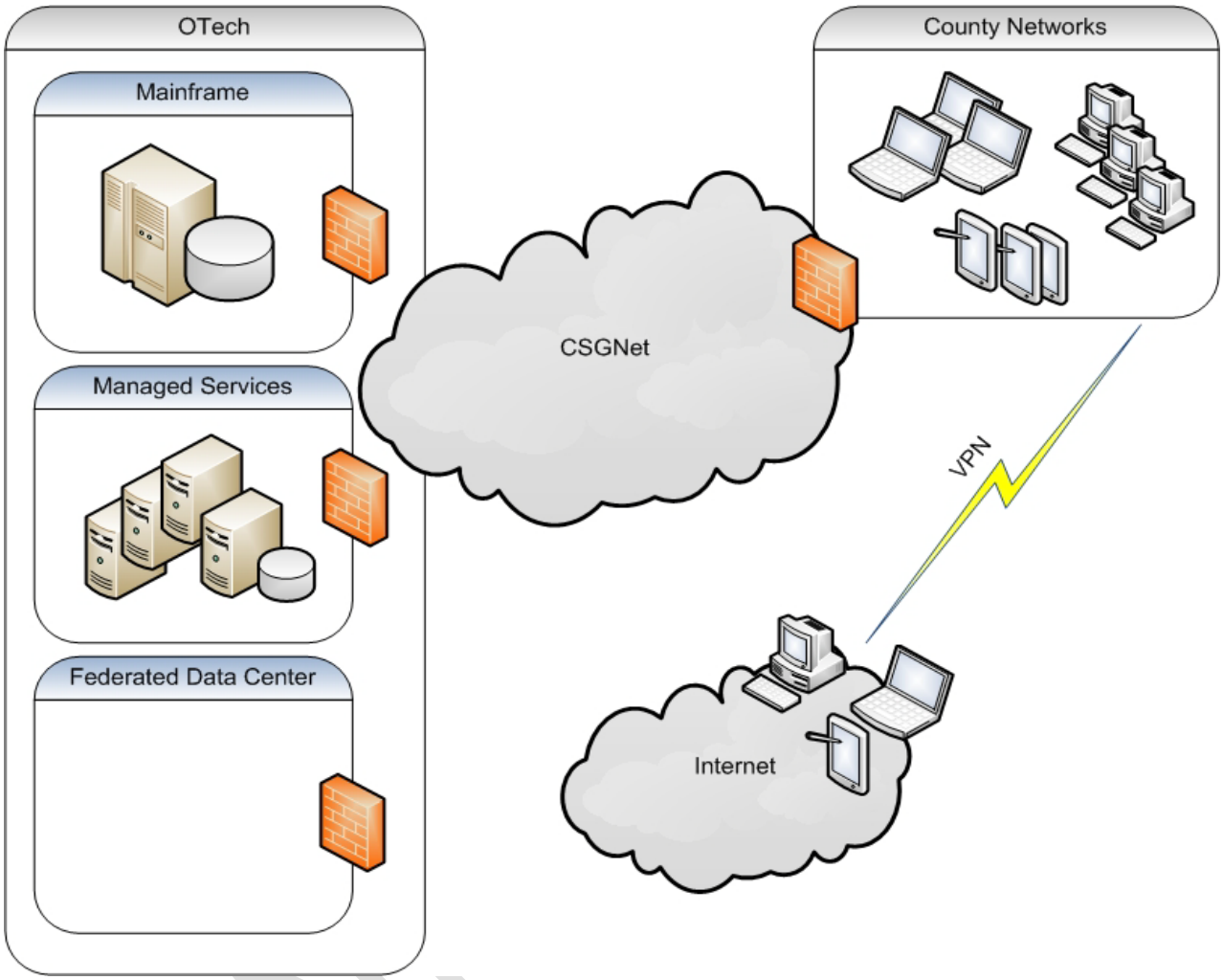
Figure 2 – CWS/CMS Upgrade – Technical Environment



1. Technical Description

Table 5 – CWS/CMS Upgrade – Scorecard

The scorecard shown on the right depicts how well this alternative scored for each evaluation factor and its overall score as a percentage. The icon shows the percent to which the alternative met the needs of the evaluation category (zero, quarter-, half-, three quarters- or fully-met).

Scorecard	
Business	◑
Technical	◔
SACWIS	◑
Time	◑
Cost	◑
Risk	◑
50% overall score	

Using this alternative, the process of upgrading the CWS/CMS technical infrastructure will evolve over time. Changes to the existing application and systems architecture will only be made to meet critical operational requirements, such as changing the security model to accommodate new user types or modifying an existing interface. The reporting architecture will leverage the existing data reporting capability. All counties with adequate technical infrastructure and support resources (typically coexistent counties) can deploy a data mart fed by the data warehouse. Counties without adequate technical infrastructure and support resources will access the data warehouse directly for their day-to-day operational reporting needs. The enhanced data warehouse will serve all county and state users for analytical reporting, data mining, and/or ad-hoc reporting. The potential retention of the CWS/CMS application architecture, IBM mainframe, and DB2 database as back-office infrastructure introduces a risk that users will be impacted by upgrades occurring in a production environment

To re-host and upgrade the existing client-based user interface, business logic, and database interface will require extensive requirements specification/validation, analysis, and design prior to initiation of the build phase of the lifecycle.

The upgrade of CWS/CMS will result in:

- Replacement of the existing client with a Web browser.
- Re-host of the existing client-based user interface, business logic and database interface into n-tiered architecture.
- Development and delivery of critical functionality.
- Consolidation of the distributed application server architecture.
- Retention of the IBM mainframe.
- Retention of the existing CICS/COBOL/DB2 code base.
- Retention of application access through:
    - CSGNet (via VPN).
    - County LAN and the CSGNet.

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- Direct connection to the CSGNet.
- Wireless connection to a county LAN and/or the CSGNet.

Critical functionality that must be available for the initial release can be developed separately from the major re-host effort (therefore not impacting its schedule) and deployed at the same time. Less-critical functionality will be prioritized, sequenced, and scheduled for inclusion in post-deployment enhancement releases.

2. Benefits

- Offers minimal impact to end users.
- Requires no data conversion.
- Replaces the thick client with a Web-browser-based thin client, allowing for access anywhere, anytime.
- Allows incremental functionality enhancements (based on budget and priorities) after initial release.
- Removes the operational cost of periodic refreshes of 200+ distributed application servers.
- Removes the operational cost of special workstation images to run the client software.
- Centralized application server(s) can be managed at OTech.
- Results in an improved maintenance lifecycle due to single-point enhancement/ upgrade deployment on the centralized application server(s).

3. Challenges

- Offers only restricted use of the Web browser, as a thin client, to the State's intranet. (This does not provide internet capabilities.)
- Retains the operation and maintenance costs associated with the IBM mainframe and DB2 database.
- May require greater day-to-day performance management because of increased infrastructure complexity.
- Interface to partner systems is batch, which does not provide real-time information.

4. Methodology

The CWS/CMS Upgrade alternative will require two separate development lifecycles. Because of the complexity (which includes a new architecture) and the number of partner dependencies associated with the initial upgrade of the CWS/CMS client to Web technologies, this release will be executed using a separate serial-development lifecycle. Once this initial release has been completed, a new incremental-development lifecycle approach will apply to developing the new and enhanced functionality that was not present in CWS/CMS.

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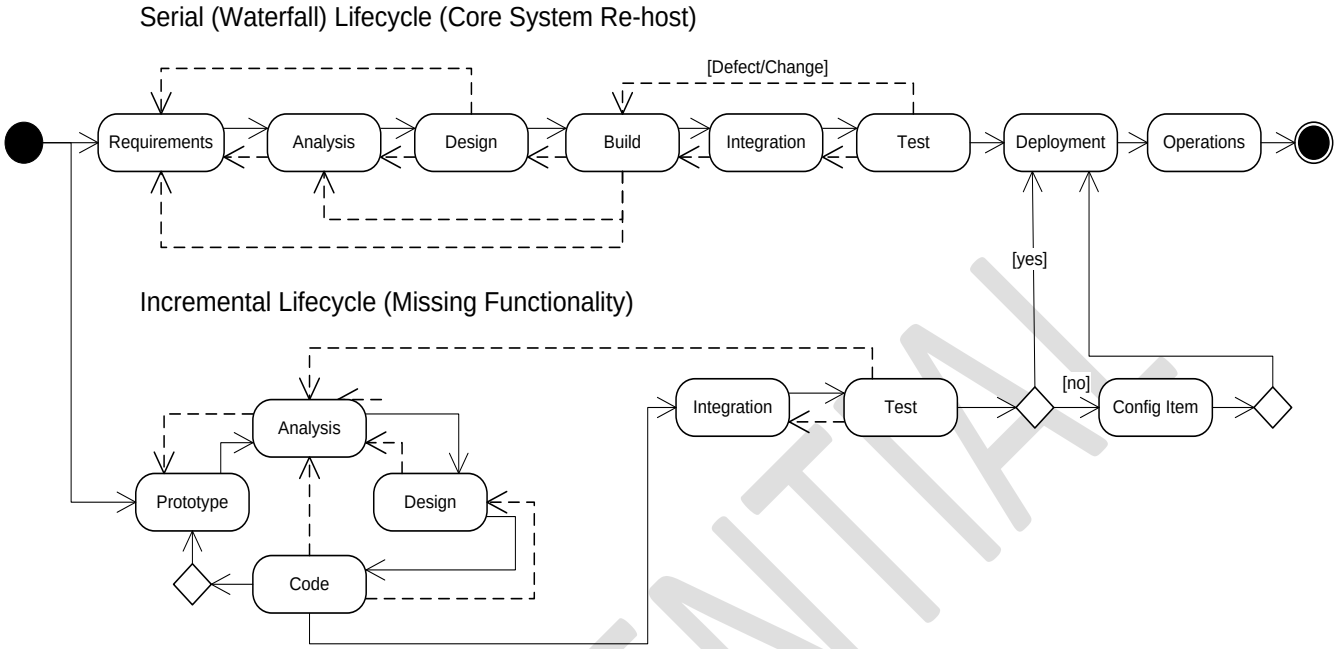
Figure 3 – CWS/CMS Upgrade – Lifecycle Methodology



A detailed discussion on the approach to be taken for the CWS/CMS Upgrade can be found in Appendix C: Lifecycle Methodologies.

5. Business Assessment

This alternative is focused on upgrading the existing CWS/CMS to Web-based technologies. Users will be provided access to the existing CWS/CMS via the county intranet. Remote access will continue to require the use of tokens and virtual private networks to access the county intranet to log on. Identified critical functionality and modifications to existing functionality will be prioritized, sequenced, and scheduled for inclusion in future enhancement releases after the upgrade is completed and stabilized.

This alternative leverages existing business infrastructure with the least disruption to business operations. As it involves minimal changes to the appearance and navigation of the application, users will require minimal training regarding changes. New functionality will require user training as it is implemented. The existing training infrastructure will be used for statewide training.

The stakeholder community identified that the functionality needed to support critical CWS operations and the length of time to delivery are their highest priorities when considering technical alternatives. This alternative is one of the slower to deliver benefits. This alternative also retains a number of existing constraints that will continue to impede usability and effective case management practice, such as the ease-of-use problems with navigation, the multiple inefficient reporting solutions, the limited mobile access, and the lack of role-based access. These constraints limit the ability to implement the self-service functionality as envisioned to allow CWS community partners to view and enter data.

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Although the intent is to implement critical functionality and to modify existing problem functionality, it will be difficult to implement some of the functionality as preferred or optimal to support CWS practice.

This alternative does not have the ability to support real-time interfaces with other systems. It may also be difficult, due to the continuation of the existing environment and its limitations, to support all the identified interfaces.

The continuance of this constrained CWS/CMS alternative will result in California CWS dependence upon external vendors such as Sphere, CRC, University of California at Davis and Social Solutions for application and reporting services.

This alternative does not support the needs of CWS practice.

6. SACWIS

This alternative may accommodate the State's commitment to fulfilling SACWIS functional requirements. The delay increases the risk of suspension of SACWIS funding.

This alternative's limitations will result in the maintenance of existing external systems and creation of new systems to support CWS practice, which will jeopardize SACWIS compliance.

7. Timeline

The timeline to upgrade the existing CWS/CMS has been provided with a focus on the procurement, development, and deployment phases of the alternative.

Procurement

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Table 6 – CWS/CMS Upgrade – Procurement Duration

Key Dates/Tasks	Develpp RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Prepare Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	9.00	1.00	1.00	2.00	0.25	0.25	0.00	1.00	0.50	3.00	3.00	0.50	1.00	2.00	3.00	1.00		3.00			31.50

Development – Initial Release

The following table identifies the system and business function capabilities that will be delivered in the initial release.

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Table 7– CWS/CMS Upgrade – Initial System and Business Functionality

System	Business Function
• Application Architecture	• Intake Management
• Infrastructure	• Case Management - Service / Case Plan
• Data Conversion (external systems only)	• Case Management - Review, Evaluation, Monitoring
• Workflow	• Court Processing
• System Security	• Administration
• General Functionality	• Resource Management
• Other Functionality	• Quality Assurance
• Interfaces	

Future Release

The following table identifies the business function capabilities that will be delivered in the future release.

Table 8 – CWS/CMS Upgrade – Future System and Business Functionality

System	Business Function
	• Adoptions
	• Financial Management
	• Eligibility
	• Critical Functionality Matrix
	• New Law, Regulation or Policy capabilities

Deployment – Initial Release

Because this alternative will utilize a centralized architecture and retain the existing workstation software characteristics (look-and-feel), the existing IBM mainframe and DB2 database, and workstation access only requires a Web browser, deployment will be instantaneous to all users the moment that the system comes online. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution) and for decommissioning previously-distributed architecture components.

Deployment – Future Release

Like the initial release, deployment will be instantaneous to all users the moment that the future release business function is deployed. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution).

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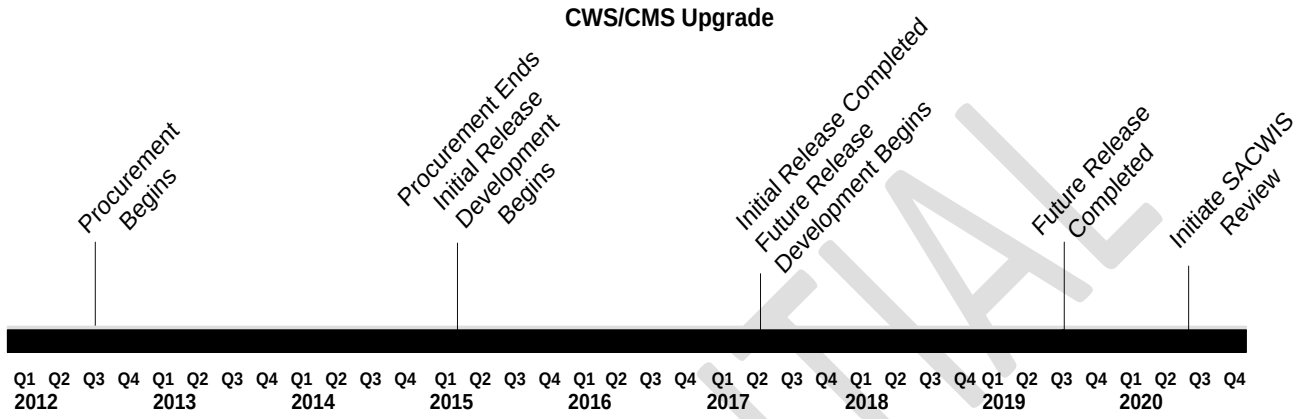
State Fiscal Year (SFY) Allocation

The following figure shows how the procurement, development and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 4 – CWS/CMS Upgrade – Timeline



8. Cost

The total cost for the CWS/CMS Upgrade alternative is estimated to range between $1.2 billion and $1.4 billion and consists of three components: one-time costs, ongoing costs, and continuing existing system costs.

The estimated one-time costs associated with this alternative range between $216 and $254 million. These costs consist of project staffing, procurement of project support vendors, new procurement activities of the existing M&O contract, and development of additional enhancements and functionality over time. With approved FFP of 50percent, the total one-time cost to the SGF would be approximately $118 million, incurred between SFY 2012-13 and 2019-20.

Total continuing IT costs are estimated to average $79 million per year. These IT costs are associated with the new vendor's ongoing maintenance and operational activities, annual system updates and patches, county support, and other system upgrades and refreshes as applicable under the new M&O contract. With approved FFP of 50 percent, the approximate annual SGF cost would be $40 million beginning in SFY 2017-18, resulting in an annual SGF savings of approximately $7 million, in comparison to the existing CWS/CMS.

Estimated continuing existing-system costs are estimated to range between $396 million and $464 million. These costs are attributed to maintaining the existing system as-is while a new procurement for M&O services is conducted. These costs will occur concurrently with the one-time costs described above. With approved FFP of 50 percent, the total continuing existing-system costs to the SGF would be approximately $215 million, incurred between SFY 2012-13 and 2017-18.

The following table shows estimated costs broken out by one-time IT costs, continuing IT costs, and continuing existing IT costs by state fiscal year. The cost-estimating

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period for this alternative consists of costs through the end of procurement plus ten years of costs after contract award.

The cost estimates do not include CWS/CMS county or CWS program costs. One-time county goods and services costs have been estimated and are included in each of the alternatives' one-time cost estimates.

Table 9 – CWS/CMS Upgrade – Costs

*Costs are rounded to the nearest million.

CWS/CMS UPGRADE
(Costs Rounded to the Millions)

	PROCUREMENT			INITIAL RELEASE		FUTURE RELEASE			MAINTENANCE & OPERATION					TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
One-time IT Costs	$ 12	$ 12	$ 29	$ 34	$ 62	$ 29	$ 29	$ 28	$ -	$ -	$ -	$ -	$ -	$ 235
Continuing IT Costs	$ -	$ -	$ -	$ -	$ -	$ 76	$ 77	$ 78	$ 78	$ 79	$ 80	$ 81	$ 41	$ 590
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 430
Estimated Annual Totals	$ 93	$ 94	$ 112	$ 117	$ 146	$ 122	$ 106	$ 106	$ 78	$ 79	$ 80	$ 81	$ 41	$ 1,255

The one-time IT costs for the CWS/CMS Upgrade is approximately $235 million. The one-time IT cost estimate period for this alternative is eight years. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $118 million, incurred between SFY 2012-13 and 2019-20.

Continuing IT costs for the new M&O are estimated to begin after the implementation of the initial release. Continuing existing IT costs are estimated to be incurred for five years and six months, during the same period required to procure the alternative and implement the initial release.

The CWS Program incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

Cost estimates were based on existing CWS/CMS costs, previously-approved CWS/Web project costs, DGS pricing resources, and a 3.5 percent increase to account for vendor labor cost escalation.

9. Risks

- Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and solution delivery date.
- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Unanticipated tasks associated with the complexities of upgrading the existing system may require additional funding.
- Maintenance costs for the existing system may continue to increase over time and may become cost-prohibitive.

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- Inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.
- Operating with a hybrid of old and new technologies may not lower ongoing costs.
- Policy, regulation, and legislative changes during Design, Development and Implementation (DD&I) may delay the delivery date of the solution and increase costs.

D. Alternative 2 – Restart the CWS/Web Project

This alternative will utilize the existing CWS/Web RFP documents and requirements without modification to procure and develop a services-oriented Web-services-based architecture and replacement system for CWS/CMS. A new procurement will begin with the re-release of the CWS/Web RFP. All functionality, including the unfulfilled SACWIS technical requirements and integration of the external systems, will be available to users through a Web browser.

The approach to restarting CWS/Web will:

- Replace distributed computing architecture (servers and software) with centralized components that integrate the Web, the system logic and the database.
- Deliver an architecture based on Web technologies;
- Establish a SOA and support future collaboration with (interfaces to) other systems or services.
- Ensure a browser-based client (delivery of mobility).
- Develop and deliver data exchange interfaces to support interagency information sharing.
- Consolidate existing and external data sources into a single repository.
- Add missing business functionality.
- Enhance business functionality that is operationally insufficient.

The development and deployment of all functionality with this approach will occur over a period of three years. Deployment will occur in the fourth year, using an incremental geographical deployment.

The following diagram illustrates the basic architecture that restarting CWS/Web will utilize. For the user, whether residing at a county, in a state office building or operating outside of the traditional office environment, the sole requirement for system access is a Web browser. Access to centralized application components will depend on the user location and method of connectivity (wireless, wired, Virtual Private Network). The computing infrastructure will be server-based and managed by OTech.

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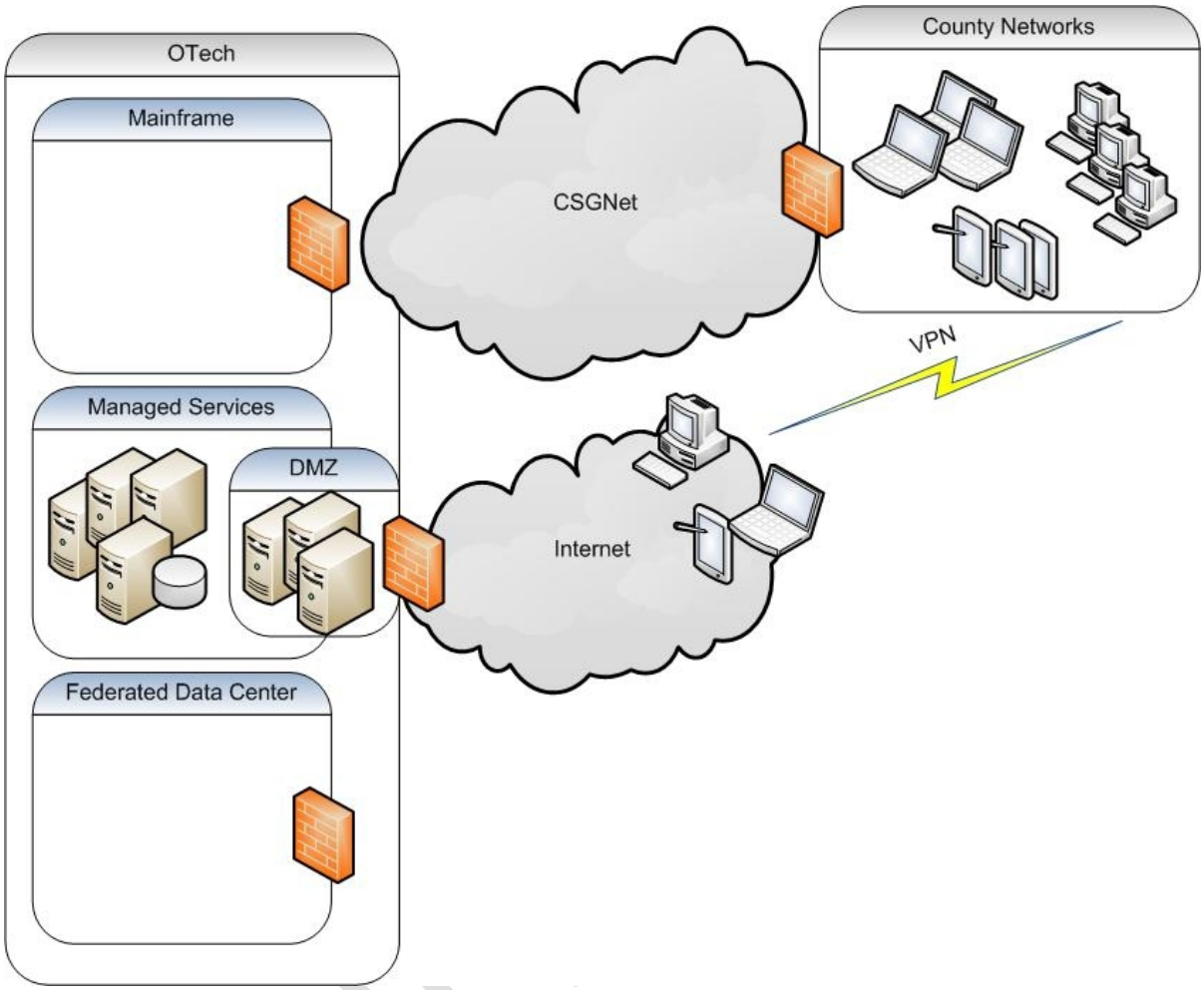
Figure 5 – Restart CWS/Web – Technical Environment



1. Technical Description

Table 10 – Restart CWS/Web – Scorecard

Scorecard	
Business	●
Technical	◕
SACWIS	◕
Time	◑
Cost	◑
Risk	◕
75% overall score	

CWS/Web will enable the State and counties to connect to the system and interact via Web-standards-based mechanisms. Restarting CWS/Web will facilitate secure access to the application for any authorized user. The architecture will accommodate custom views and impose county-specific workflow preferences.

CWS/Web will provide interoperability between applications and processes, utilizing Web services and messaging components. This leverages other related technologies, providing an architectural framework similar to traditional distributed communications paradigms such as Common Object Request Broker Architecture. Service-publication mechanisms allow client applications to discover, locate and invoke Web-service components dynamically.

CWS/Web will be based on an architecture lending itself to the integration of external systems and the rapid development of new services. The system will be adaptable and extensible. Components will be designed in a loosely-coupled fashion to be interchangeable with other external components of similar functionality with limited change to the overall solution.

As an adaptable service-oriented architecture, CWS/Web will provide application development and deployment facilities to allow applications to be integrated and deployed using existing services. The system will allow new services to be created and made available without modification of existing application structures.

2. Benefits

- The system is planned, specified, designed and documented before any development begins.
- System specifications are very detailed and focus on maximum delivery of business value (aligned with need, law, policy and practice).
- System architecture is aligned with immediate business needs and long-range business objectives.
- SOA and Web technology frameworks facilitate system extensibility and interagency information sharing.
- The use of “services” (loosely coupled units of functionality that individually implement one action) results in:
    - Minimal development time.

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- Simplified maintenance.
- Isolation of upgrade/enhancement impacts to the service itself.
- Simplified testing.
- Maximum potential reuse.

3. Challenges

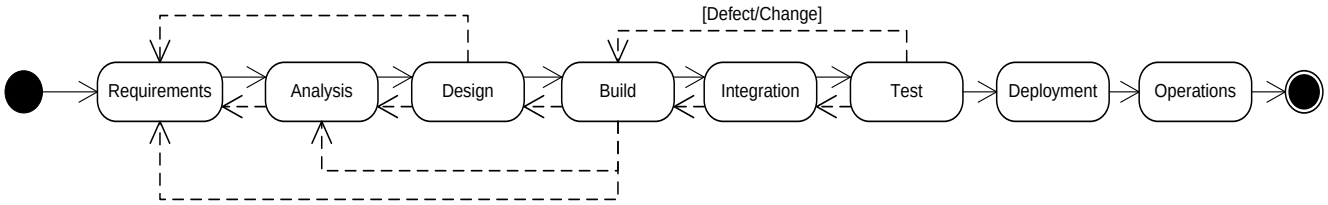
- Relies heavily on written communications between lifecycle phases.
- Integration, system, and acceptance testing cycles are executed after services are fully developed.
- It is difficult to determine the status of product development beyond the status of individual phases.
- The timing of testing makes defect correction more costly and time-consuming, and may delay the delivery of the system because of re-work complexity.
- Issues (what was missed) are often not identified until the test phase.
- The single, complete-system delivery model greatly delays delivery of business value.
- The heavily front-end loaded development lifecycle, involving (complete) system analysis, specification, design, and documentation, results in increased staffing costs and delayed return on investment, as measured by delivery of business value.
- Actual service (functionality) costs are very hard to determine because there is little or no cost segmentation within an individual phase.

4. Methodology

Requirements for the CWS/Web Restart alternative will be determined at the beginning of the development effort and can be changed only thereafter through application of a very structured change-management process.

Figure 6 – Restart CWS/Web – Lifecycle Methodology

Serial (Waterfall) Lifecycle



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Details of the approach to be taken for restarting CWS/Web can be found in Appendix C: Lifecycle Methodologies, Restart the CWS/Web Project - Lifecycle Methodology, Restart the CWS/Web Project - Lifecycle Methodology.

5. Business Assessment

This alternative will utilize existing CWS/Web RFP documents without modification to procure and develop a replacement system for CWS/CMS. It provides for utilization of CWS/Web RFP requirements that have already been defined, approved, and documented. The CWS/Web RFP requirements include, at a minimum, the critical functionality required for SACWIS and CWS practice. A new procurement will start, re-releasing the CWS/Web RFP to result in development of a new custom application utilizing a Web-services-based architecture. This alternative will continue to utilize CWS/CMS while simultaneously developing the new system, CWS/Web.

This alternative resolves existing navigation, performance, and database-concurrency issues. It reduces duplicate data-entry efforts, and improves data quality and program management reports. It provides for timely implementation of functional changes and increased mobility. As noted in the TAAA report, counties have consistently voiced that the missing SACWIS functionality is a critical part of the capability needed to enhance the ability of CWS workers to provide essential services to children at risk. This alternative serves to meet those business needs.

A CWS worker's responsibilities are working with at-risk children and families, often outside of an office setting. With restarting CWS/Web, mobile access to the system will allow users to retrieve, enter and upload client information from most locations.

This alternative will provide users with better system navigation and ease of data entry. Role-based access will provide the ability to limit and control system access to appropriate parties. Not only will role-based access help workers by allowing them access only to the information they need to do their job, but it will allow them to work collaboratively with community partners. An example is Differential Response, where an external user (e.g., service provider) can have access to the system. The service provider will have a more limited access to the system and be limited as to what information they can enter. This alternative also supports multidisciplinary case management, where workers collaborate with community-based partners.

Workflow functionality will help workers in their daily activities by generating forms automatically and generating tasks or reminders when needed.

Restarting CWS/Web will allow counties the freedom to maintain their own computers and equipment. This alternative will not require counties to sustain existing levels of equipment and may help reduce their costs for maintaining the system.

This is a new solution that will require statewide implementation training. Due to the fact that the system can be accessed through the Internet, training labs can be easily set up in multiple locations.

This alternative will allow for the implementation of all interfaces as identified in the CWS/Web RFP. This supports the data exchange of client information and the ability for the information to be associated to the client. (One example is a potential interface

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with the California Department of Child Support Services system.) CWS workers will be able to obtain information critical to investigation and case planning, such as location information and other client-specific information. This alternative will also support the ability to accept real time information from interface partners.

This alternative will support the ability to display views of data for case review. Types of case reviews may include:

- State technical assistance and monitoring
- Court
- Federal reporting
- Eligibility
- Financial management
- Title IV-E audits
- Federal reporting tools

Data integrity will be supported as client data is entered into the system. This alternative will create a framework upon which an improved reporting solution can be built by providing more comprehensive and accurate data, which translates into more timely and improved reporting. It will streamline data collection and improve the ability to report performance measures over time. Improved reports, such as outcome and data accountability reports, will assist CDSS in turn in the production of the following types of reports and documents:

- State legislative reviews and data requests
- Child and Family Services Review (CFSR)
- Annual Progress and Services Review (APSR)
- AFCARS
- NYTD
- NCANDS
- Relative/ Non-Relative Extended Family Members (NFREM) Review
- IV-E Adoptions Assistance Review

This alternative offers one of the better solutions to support CWS practice.

6. SACWIS

This alternative will obtain SACWIS compliance.

CWS/Web has been approved and funded at SACWIS FFP levels, subject to ongoing review, by ACF. ACF has agreed to continue SACWIS FFP for both development of CWS/Web and ongoing operation of CWS/CMS, pending implementation of CWS/Web. The current state suspension of CWS/Web may reduce ACF support for continuing

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SACWIS FFP due to the additional delay over the original approved timeframes. However, to date, ACF remains supportive of California's reassessment process and is unlikely to suspend SACWIS FFP for either CWS/CMS operation or new system planning. Consequently, the state and county share of cost is not likely to increase due to a reduction of FFP.

7. Timeline

The timeline for the CWS/Web Restart has been provided with a focus on the procurement, development and deployment phases of the alternative.

8. Procurement

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Table 11 – Restart CWS/Web – Procurement Duration

Key Dates/Tasks	Develop RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	1.00	0.00	0.50	1.00	0.00	0.25	0.00	0.50	0.50	3.00	4.00	0.50	1.00	3.00	4.00	1.00		3.00			23.25

Development – Initial Release

The following table identifies the system and business function capabilities that will be delivered in the initial release.

Table 12 – Restart CWS/Web – Initial System and Business Functionality

System	Business Function
• Application Architecture	• Intake Management
• Infrastructure	• Case Management - Service / Case Plan
• Data Conversion (external systems only)	• Case Management - Review, Evaluation, Monitoring
• Workflow	• Court Processing
• System Security	• Administration
• General Functionality	• Resource Management
• Other Functionality	• Quality Assurance
• Interfaces	• Adoptions
• Reporting	• Financial Management
	• Eligibility

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CWS/CMS Decommissioning

The existing CWS/CMS will be decommissioned after delivery of this initial release.

Development – Future Release

The following table identifies the business function capabilities that will be delivered in the future release.

Table 13 – Restart CWS/Web – Future System and Business Functionality

System	Business Function
	• Critical Functionality Matrix
	• New Law, Regulation or Policy capabilities

Deployment – Initial Release

This approach will utilize an entirely new SOA architecture and workstation access will require only a Web browser. Due to the new architecture (decommissioning the existing CWS/CMS), user interface characteristics will change to accessibility being possible with a Web browser only. With these changes and the addition of new capabilities (mobility and workflow), deployment will be executed in three sequential increments. The first deployment will occur over four months, the next over another period of four months, and the last deployment over a period of six months. County assignment to an increment will be determined during deployment increment planning.

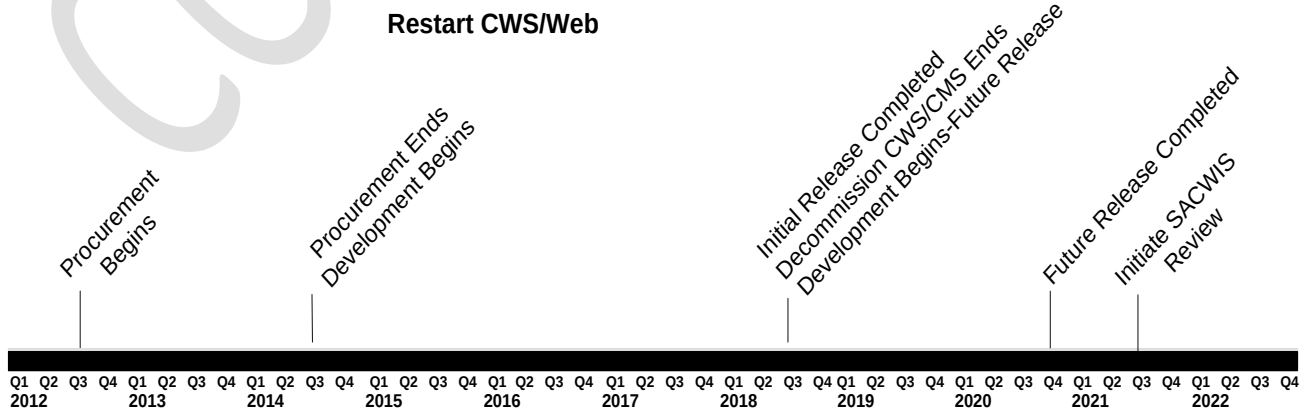
Deployment – Future Release

Like the initial release, deployment will be executed in three sequential increments. The first deployment will occur over four months, the next over another period of four months, and the last deployment over a period of six months.

State Fiscal Year (SFY) Allocation

The following figure shows how the procurement, development, and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 7 – Restart CWS/Web –Timeline



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9. Cost

The total cost for the CWS/Web Restart alternative is estimated to range between $1.1 billion and $1.3 billion, and consists of three components: one-time costs, ongoing costs, and continuing existing-system costs.

The estimated one-time costs associated with this alternative range between $290 million to $340 million. These costs consist of project staffing, procurement of project support vendors, procurement activities for the systems integrator, and DD&I costs for the new CWS/Web solution. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $158 million, incurred between SFY 2012-13 and 2020-21.

Total continuing IT costs are estimated to average $61 million per year. These costs are associated with ongoing maintenance and operational activities of the new system, annual system updates and patches, county support, and other system upgrades and refreshes as applicable under the new M&O contract. With approved FFP of 50 percent, the approximate annual SGF cost would be $31 million beginning in SFY 2018-19, resulting in an annual SGF savings of approximately $15 million, in comparison to the existing CWS/CMS.

The estimated continuing existing-system costs are estimated to range between $511 million and $599 million. These costs are attributable to maintaining the existing system as-is while the CWS/Web solution is being developed and implemented. These costs will occur concurrently with the one-time costs described above. With approved FFP of 50 percent, the total continuing existing-system costs to the SGF would be approximately $278 million, incurred between SFY 2012-13 and 2018-19.

The following table shows estimated costs broken out by one-time IT costs, continuing IT costs, and continuing existing IT costs by state fiscal year. The cost-estimating period for this alternative consists of costs through the end of procurement plus ten years of costs after contract award.

The cost estimates do not include CWS/CMS county or CWS program costs. One-time county goods and services costs have been estimated and are included in each of the alternatives' one-time cost estimates.

Table 14 – Restart CWS/Web – Costs

*Costs are rounded to the nearest million.

RESTART CWS/WEB
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE					FUTURE RELEASE			MAINTENANCE & OPERATION			TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
One-time IT Costs	$ 13	$ 14	$ 43	$ 45	$ 54	$ 59	$ 36	$ 36	$ 15	$ -	$ -	$ -	$ 315
Continuing IT Costs	$ -	$ -	$ -	$ -	$ -	$ -	$ 33	$ 61	$ 61	$ 61	$ 62	$ 62	$ 340
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 84	$ 85	$ 57	$ -	$ -	$ -	$ -	$ -	$ 555
Estimated Annual Totals	$ 94	$ 96	$ 126	$ 128	$ 138	$ 144	$ 126	$ 97	$ 76	$ 61	$ 62	$ 62	$ 1,210

The one-time costs for the Restart CWS/Web alternative, is approximately $315 million.

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The one-time cost estimate period for this alternative is nine years. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $158 million, incurred between SFY 2012-13 and 2020-21.

Continuing IT costs for the new M&O are estimated to begin after the implementation of the initial release. Continuing existing IT costs are estimated to be incurred for seven years, during the same period required to procure the alternative and implement the initial release.

The CWS Program incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

Cost estimates were based on existing CWS/CMS costs, previously-approved CWS/Web project costs, DGS pricing resources, and a 3.5 percent increase to account for vendor labor cost escalation.

10. Risks

- Existing CWS/CMS system costs may continue to increase while the CWS/Web solution is being developed.
- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Policy, regulation, and legislative changes during DD&I may delay the delivery date of the solution and increase costs.
- Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and solution delivery date.
- Unanticipated tasks associated with the complexities of upgrading the current system may require additional funding.
- Inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.

E. Alternative 3 – Build a CWS New System

Within the following subsections, two possible options to implementing a completely new system are provided:

1. Custom
2. Buy/Build

This alternative will not use any existing CWS/CMS application elements. Web technologies and layered architecture will separate the user interface, the application logic, and the data. Existing operational business data will be (1) extracted, transformed (as applicable), and loaded into a new database; (2) hosted in a new database engine; and (3) reside on a new database server.

The approach to building a CWS new system will:

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- Replace distributed computing architecture (servers and software) with centralized components that integrate the Web, the system logic, and the database.
- Deliver an architecture based on Web technologies.
- Establish a service-oriented architecture and support future collaboration with (interfaces to) other systems or services.
- Ensure a browser-based client (delivering user mobility).
- Develop and deliver data exchange interfaces to support interagency information sharing.
- Consolidate existing and external data sources into a single repository.
- Add missing business functionality.
- Enhance business functionality that is operationally insufficient.

The following diagram illustrates the basic architecture of this alternative. For the user, whether residing in a county, working in a state office building, or operating outside of the traditional office environment, the sole requirement for system access is a Web browser. Access to centralized application components will depend on the user location and method of connectivity (wireless, wired, VPN). The computing infrastructure will be server-based and managed by OTech.

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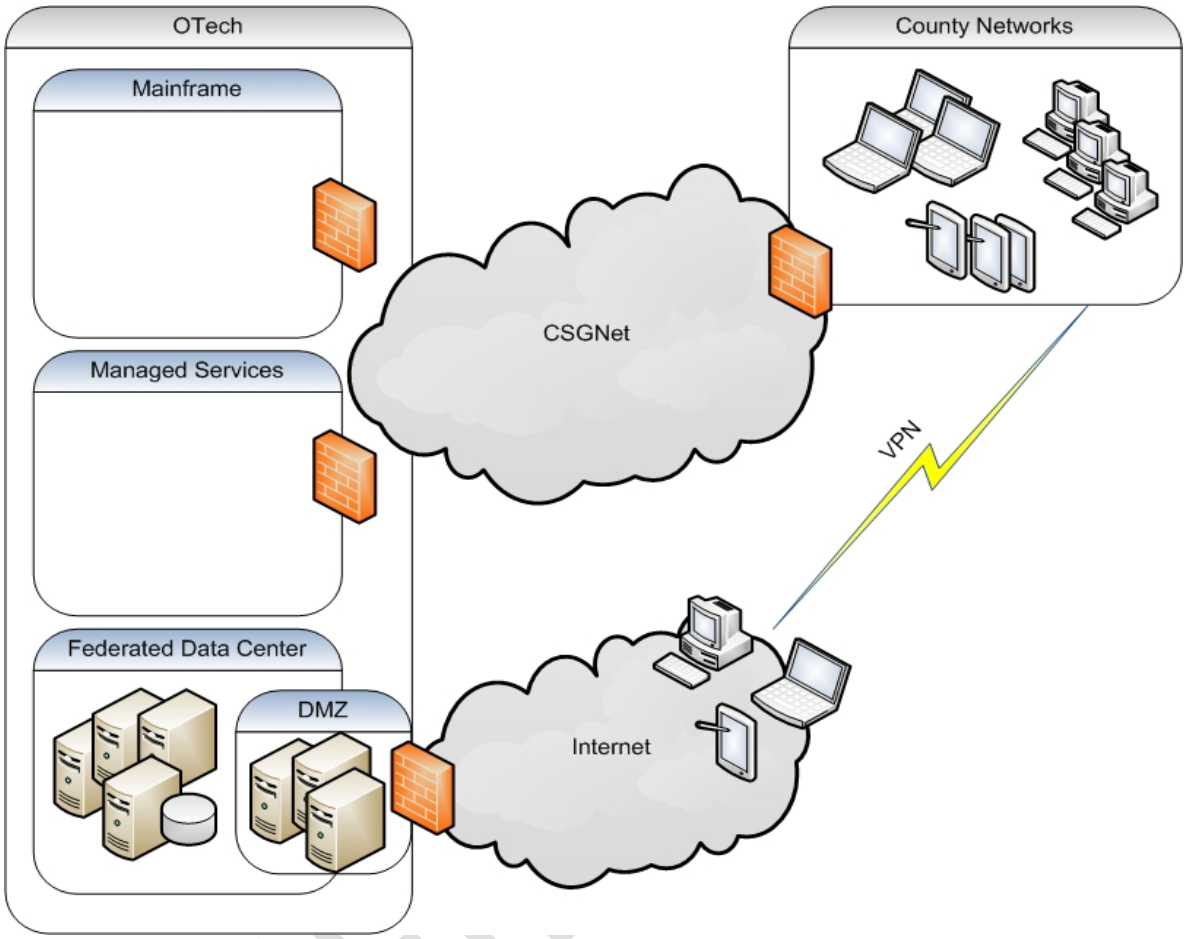
Figure 8 – New System – Technical Environment



An enterprise-wide architecture that supports all the diverse lines of business is required for any new system alternative. This architecture should be standards-based to accommodate different levels of government as well as private industry partners. There are two foundational components that make up this new enterprise architecture:

- Business services implemented as shared Web services.
- Consistent user administration through Enterprise Identity Management (IDM). This will allow for various security policies to be applied.

The service-oriented architecture allows the new system to realize the advantages of maintaining a SOA-based application and infrastructure, and positions the solution to use the Enterprise IDM system or service.

The evolution of the Internet and its considerable use for online ecommerce have been key drivers for the development and implementation of highly distributed, portable, automated, and high-transaction systems. The knowledge, experience, and maturity gained from these technical implementations have advanced the state of products and software development processes. The sponsors of SOA-based implementations achieve the following advantages over typical non-SOA-based systems:

- A high level of interoperability that increases flexibility and reduces maintenance costs in the long run.
- Separation of concerns that serves to increase alignment with organizational division of responsibilities.
- An increase in system agility to match the business process agility, and allows for the ability to follow a roadmap over a period of time.
- Alignment with current and future technical strategies.

This approach allows the services offered by the new system to be constructed in discrete layers, loosely coupled to allow for rapid extensibility and adaptability to meet business change or expansion. This approach uses Domain-Driven Design (DDD) where the service layer will be built within a SOA using Web services.

The SOA approach used in this alternative also lends itself to reusability, as well as to ease of integration with external systems. By separating common system services into components requiring configuration settings for all business rules, it allows for externalization of these components into a global service registry for use by all applications requiring similar services. External systems can also reuse functionality published to the global service registry.

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Option 1 – Build a New Custom System

1. Technical Description

Table 15 – New System – Custom Approach – Scorecard

Scorecard	
Business	●
Technical	●
SACWIS	●
Time	◕
Cost	◕
Risk	◕
87% overall score	

This option will result in a complete new custom system development effort using none of the existing CWS/CMS application elements. Web technologies and layered architecture will separate the user interface, the application logic and the data. Existing operational business data will be (1) extracted, transformed (as applicable), and loaded into a new database, (2) hosted in a new database engine, and (3) reside on a new database server.

The system can be deployed either:

- As a single complete system by establishing an interim "configuration item" for each service after the test phase, and then releasing all configuration items at once.
- In increments after each service completes its test phase, either to the production environment as a new component/service, or to a sandbox environment for user training, evaluation, and/or practice use.

2. Benefits

- Easier to reprioritize increment content/sequence as objectives change.
- Easier to provide frequent demonstration of progress to stakeholders because product segments/functional services will evolve within the increment.
- Smaller scope increments provide flexibility and management of cost when changes to scope and/or requirements are needed.
- Testing occurs informally throughout the increment's product development activities (prototype, analysis, design, and code) and formally as final acceptance activity before deployment, resulting in fewer late-cycle defects.

3. Challenges

- Requirements changes may be higher than anticipated because of incomplete, misunderstood, or incorrectly communicated needs or expectations.
- Functional scope and/or complexity may be more than can be completed within the time-box.
- estimation of the number and duration of increments may result in reprioritization and sequencing, causing schedule delays.

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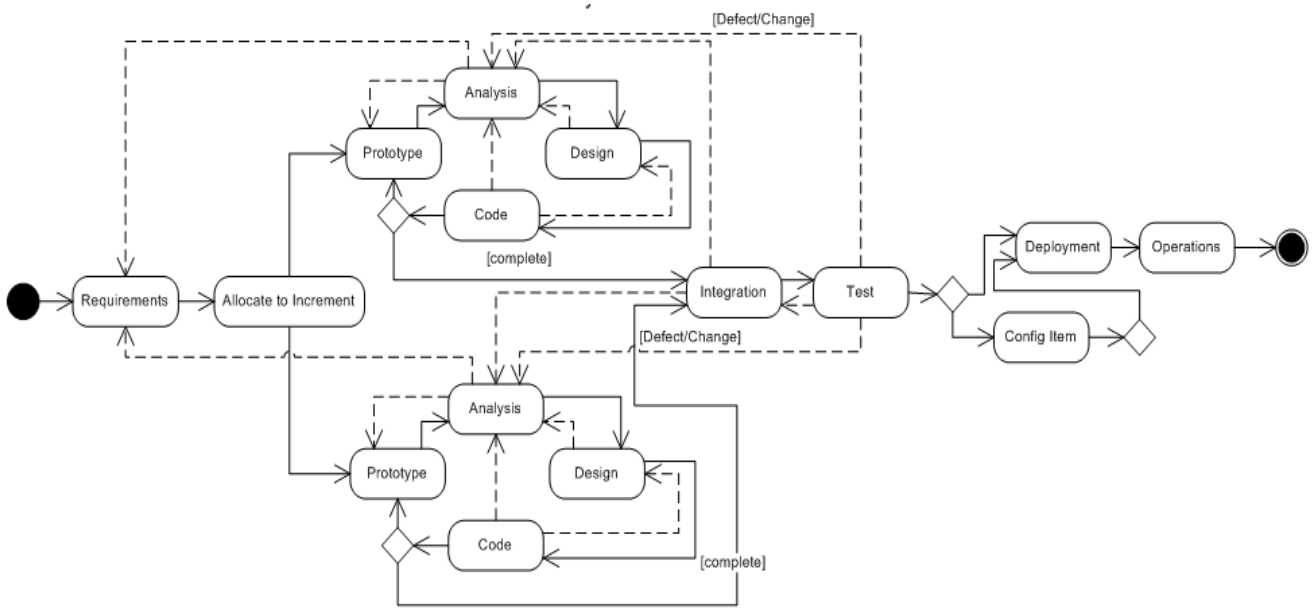
4. Methodology

The following diagram shows a custom development lifecycle with two increments, for illustrative purposes. In actual use, the number of increments will be as many as required to complete the objectives where the lifecycle is used.

Figure 9 – New System – Custom Approach – Lifecycle Methodology



Details of the approach to be taken for a custom system development can be found in Appendix C: Lifecycle Methodologies, Build a New Custom System – Lifecycle Methodology.

5. Business Assessment

This alternative can leverage the existing CWS/Web RFP documents and requirements as a starting point for creating a new system. It provides the opportunity to reassess today's current business practice and legislative needs and incorporate these into the new system.

This alternative provides for a new custom-built application utilizing Web-services-based architecture that meets SACWIS functional requirements. This alternative continues to utilize CWS/CMS while simultaneously developing the new solution. It resolves existing navigation, performance, and database concurrency issues. It reduces duplicate data entry efforts and improves data quality and program management reports. This alternative uses a flexible approach that easily accommodates the addition of new functionality (e.g., requirements discovered during design or mandated by legislation) at a potentially lower cost than the Restart CWS/Web alternative. It provides for the timely implementation of functional changes and increased mobility.

A CWS worker's responsibilities are working with at-risk children and families, often outside of an office setting. With this alternative, mobile access to the system will enable client data entry, upload and retrieval from most locations.

This alternative will provide users with better system navigation and ease of data entry. Role-based access will provide the ability to limit and control system access to appropriate parties. Not only will role-based access help the workers by allowing them access only to the information they need to do their job, but it will allow workers to work collaboratively with community partners. An example is Differential Response, where an external user (e.g., service provider) can have access to the system. The service provider will have a more limited access to the system and be limited as to what information they can enter. This alternative also supports multidisciplinary case management, where workers collaborate with community-based partners.

Workflow functionality will help workers in their daily activities by generating forms automatically and generating tasks or reminders when needed.

This alternative will allow counties the freedom to maintain their own computers and equipment. This alternative will not require counties to sustain existing levels of equipment and may help reduce their costs for maintaining the system.

This is a new solution that will require statewide implementation training. Due to the fact that the system will be accessible through the Internet, training labs can be easily set up in multiple locations.

This alternative will allow for the implementation of all interfaces listed in the Critical Functionality spreadsheet, and support the data exchange of client information and the ability for the information to be associated to the client. (One example is a potential interface with the California Department of Child Support Services system.) CWS will be able to obtain information critical to investigation and case planning, such as location information and other client specific information, and be able to receive real-time information from interface partners.

This alternative supports the ability to display views of data for case review. Types of case reviews may include:

- State technical assistance and monitoring
- Court
- Federal reporting
- Eligibility
- Financial management
- Title IV-E audits
- Federal reporting tools

Data integrity will be supported as client data is entered into the system.

This alternative will create a framework upon which an improved reporting solution can be built by providing provide more comprehensive and accurate data, which translates into more timely and improved reporting. It will streamline data collection and improve the ability to report performance measures over time. Improved reports, such as

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outcome and data accountability reports, will assist CDSS in the production of the following types of reports and documents:

- California CSFRII
- APSR
- AFCARS
- NYTD
- NCANDS
- Relative NFREM Review
- IV-E Adoptions Assistance Review

This alternative offers one of the better solutions to support CWS practice.

6. SACWIS

This alternative can achieve SACWIS compliance. The development technique of designing and using system functionality components during the development process will facilitate SACWIS compliance by the final product. Quicker implementation and a higher level of user acceptability at the end of the design phase will increase the likelihood of full utilization and complete functionality at the point of the formal federal compliance review. Consequently, ACF is less likely to suspend or require payback of SACWIS FFP for CWS/CMS and the new system development under this alternative. This alternative may also be more flexible, in that if ACF reduces SACWIS requirements, it will be easier to halt work on increments that are no longer needed. However, any delay in developing functionality increments will cause greater overall delay, risking an increase in state/county share of cost for both CWS/CMS and the new system if SACWIS FFP is suspended as a result.

7. Timeline

The timeline to build a new custom CWS system has been provided with a focus on the procurement, development and deployment phases of the alternative.

8. Procurement

The following table identifies the tasks and durations to execute the procurement process for this alternative.

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Table 16 – New System – Custom Approach – Procurement Duration

Key Dates/Tasks	Develpp RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Prepare Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	9.00	1.00	1.00	2.00	0.25	0.25	0.00	1.00	0.50	3.00	3.00	0.50	1.00	2.00	3.00	1.00		3.00			31.50

Development – Initial Release

The following table identifies the system and business function capabilities that will be delivered in the initial release.

Table 17 – New System – Custom Approach – Initial System and Business Functionality

System	Business Function
• Application Architecture	• Intake Management
• Infrastructure	• Case Management - Service / Case Plan
• Data Conversion (external systems only)	• Case Management - Review, Evaluation, Monitoring
• Workflow	• Court Processing
• System Security	• Administration
• General Functionality	• Resource Management
• Other Functionality	• Quality Assurance
• Reporting	

CWS/CMS Decommissioning

The existing CWS/CMS will be decommissioned after delivery of this initial release.

Development – Future Release

The following table identifies the business function capabilities that will be delivered in the future release.

Table 18 – New System – Custom Approach – Future System and Business Functionality

System	Business Function
	• Adoptions
	• Financial Management
	• Eligibility
	• Interfaces
	• Critical Functionality Matrix
	• New Law, Regulation or Policy capabilities

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Deployment – Initial Release

Because this approach utilizes a centralized architecture and workstation access requires only a Web browser, deployment will be instantaneous to all users the moment that the system comes online. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution) and decommissioning of the previously distributed architecture components.

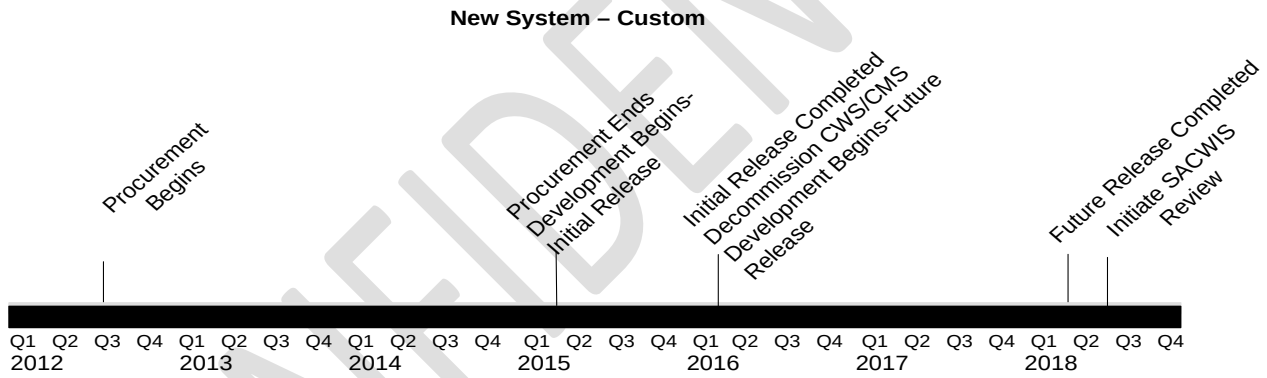
Deployment – Future Release

Like the initial release, deployment will be instantaneous to all users the moment that the future release business function is deployed. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution).

State Fiscal Year (SFY) Allocation

The following figure shows how the procurement, development and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 10 – New System – Custom Approach – Timeline



9. Cost

The CAST estimates the total cost for the New System Custom alternative to range between $1.0 billion and $1.1 billion. This consists of three components: one-time costs, ongoing costs, and continuing existing system costs.

Estimated one-time costs associated with this alternative range between $231 million to $271 million. These costs consist of project staffing, procurement of project support vendors, procurement activities for the systems integrator, and the DD&I costs of the new system. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $126 million, incurred between SFY 2012-13 and 2018-19.

Total continuing IT costs are estimated to average $54 million per year. These costs are associated with ongoing maintenance and operational activities of the new system, annual system updates and patches, county support, and other upgrades and refreshes as applicable under the new M&O contract. With approved FFP of 50 percent, the approximate annual SGF cost would be $27 million beginning in SFY 2016-17, resulting

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in an annual SGF savings of approximately $20 million, in comparison to the existing CWS/CMS.

Estimated continuing existing-system costs range between $357 million and $419 million. These costs are attributable to maintaining the existing system as-is while the new system is being developed and implemented. These costs will occur concurrently with the one-time costs described above. With approved FFP of 50percent, the total continuing existing-system costs to the SGF would be approximately $194 million, incurred between SFY 2012-13 and 2016-17.

The following table shows estimated costs broken out by one-time IT costs, continuing IT costs, and continuing existing IT costs by state fiscal year. The cost-estimating period for this alternative consists of costs through the end of procurement plus ten years of costs after contract award.

The cost estimates do not include CWS/CMS county or CWS program costs. One-time county goods and services costs have been estimated and are included in each of the alternatives' one-time cost estimates.

Table 19 – New System – Custom Approach – Costs

*Costs are rounded to the nearest million.

NEW SYSTEM → CUSTOM
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE		FUTURE RELEASE		MAINTENANCE & OPERATION							TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25	
One-time IT Costs	$ 13	$ 13	$ 31	$ 74	$ 62	$ 54	$ 4							$ 251
Continuing IT Costs	$ -	$ -	$ -	$ -	$ 47	$ 50	$ 51	$ 52	$ 61	$ 54	$ 56	$ 57	$ 29	$ 457
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 83	$ 59	$ -	$ -							$ 388
Estimated Annual Totals	$ 94	$ 95	$ 114	$ 157	$ 168	$ 104	$ -	$ 52	$ 61	$ 54	$ 56	$ 57	$ 29	$ 1,096

The one-time costs for the New System Custom alternative, is approximately $251 million. The one-time cost estimate period for this alternative is six years and six months. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $126 million, incurred between SFY 2012-13 and 2018-19.

Continuing IT costs for the new M&O are estimated to begin after the implementation of the initial release. Continuing existing IT costs are estimated to be incurred for five years, during the same period required to procure the alternative and implement the initial release.

The costs above only reflect state costs as they relate to this alternative. The CWS Program also incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

Cost estimates were based on existing CWS/CMS costs, previously-approved CWS/Web project costs, DGS pricing resources, and a 3.5 percent increase to account for vendor labor cost escalation.

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10. Risks

- Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and delivery date of the solution.
- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Policy, regulation, and legislative changes during DD&I may delay the delivery date of the solution and increase costs.
- Existing CWS/CMS system costs may continue to increase while the new system is being developed.
- Unanticipated tasks associated with the complexities of upgrading the current system may require additional funding.
- Inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties.

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Option 2 – Build a CWS New System Using a Buy/Build Approach (e.g., Transfer System/COTS)

1. Technical Description

This is the recommended alternative based on its scores and overall ranking.

Table 20 – New System – Buy/Build Approach – Scorecard

Scorecard	
Business	◕
Technical	●
SACWIS	●
Time	●
Cost	●
Risk	●
90% overall score	

This alternative will deliver a fully-operational product purchased from a vendor. Custom-developed services will be built to extend the purchased product to fill gaps required to support business practice, law, and/or policy. This alternative will reuse none of the existing CWS/CMS application elements. Web technologies and layered architecture will separate the user interface, the application logic, and the data. Existing operational business data will be:

- Extracted, transformed (as applicable) and loaded into a new database.
- Hosted in a new database engine.
- Reside on a new database server.

A critical element in the successful implementation of this approach is the establishment of the service-oriented architecture. The following diagram illustrates how the SOA will connect the purchased product (shown as a business application) with custom-developed services (shown as a business service). This will allow the purchased product to remain unaltered, which is critical for later upgrades and enhancements from the vendor, without being impacted by or causing impact to custom-developed services. Connection to other agency systems (commonly referenced as data-exchange interfaces) will be accomplished using adapters with the business application.

The following diagram illustrates how the elements of this alternative's internal system environment will interact.

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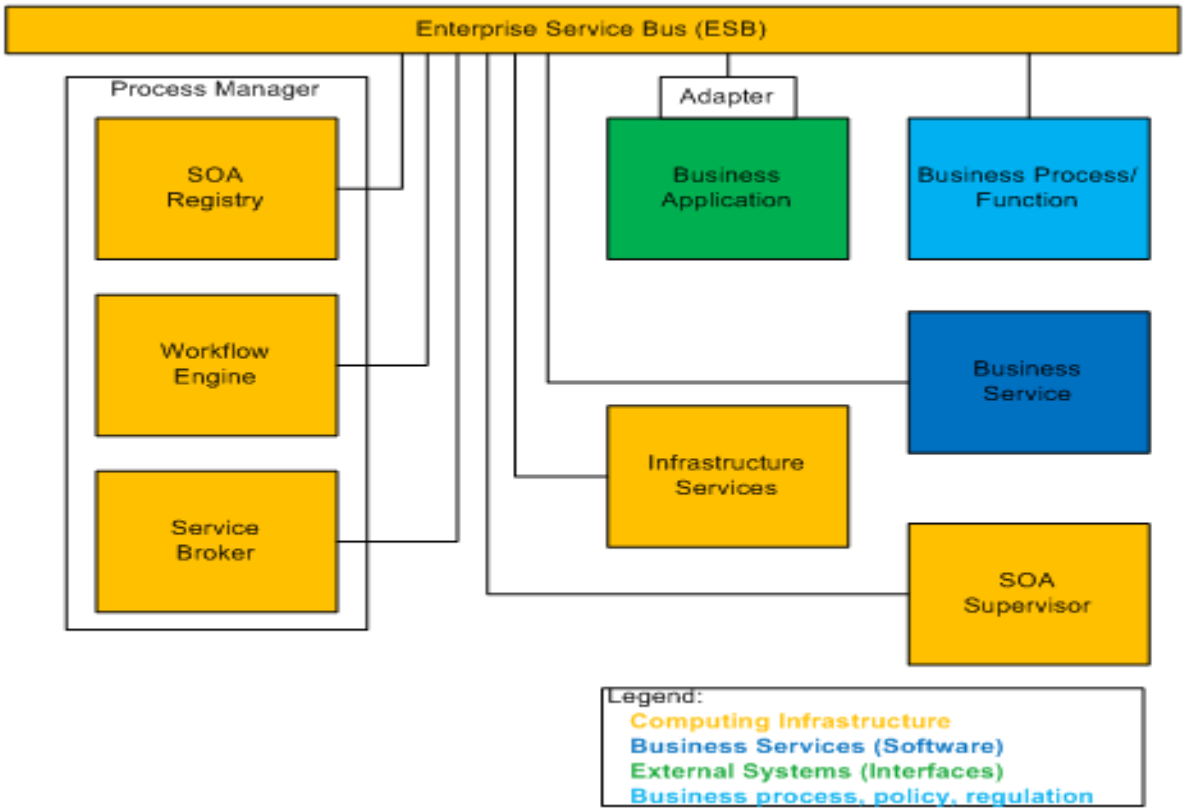
Figure 11 – New System – Buy/Build Approach – Internal System Environment



The steps involved with using service-oriented architecture and a Buy/Build approach include:

- Evaluate and purchase a product.
- Conduct a gap analysis against the purchased product.
- Identify gaps that are required to fill mandated law/policy.
- Identify gaps that result because the purchased product cannot support the current practice.
- Determine the approach: develop custom-built services, configuration, or execute business process reengineering (BPR) to close the gap.
- Implement the purchased product.
- Test the implemented purchased product.
- Perform organizational change management to maximize user understanding, use and acceptance of the purchased product and the services.
- Deploy the purchased product.

- Build services.
- Integrate services.
- Test services.
- Deploy services.
- Move the purchased product and services into operation.

2. Benefits

- This alternative is best when a majority of business needs can be delivered with a fully-developed existing product, greatly shortening delivery of needed business value.
- The use of the buy/build approach provides maximum flexibility.
- Delivery of a service(s) can be prioritized and sequenced to best align with business goals, needs and objectives.
- Because the functionality of the pre-existing product will not contain any customization, vendor-initiated upgrades to provide new functionality and/or address defect correction can be implemented with minimal impact to the system operations.

3. Challenges

- A very high number of requests for the development of services can result in excessive delays in delivery of this alternative.

4. Methodology

The Buy/Build development lifecycle has two distinct focuses for delivery of the final solution. The first focus is associated with the implementation of the purchased product (buy). The second is the incremental-development (build) of services that will be associated with the purchased product to extend its functionality.

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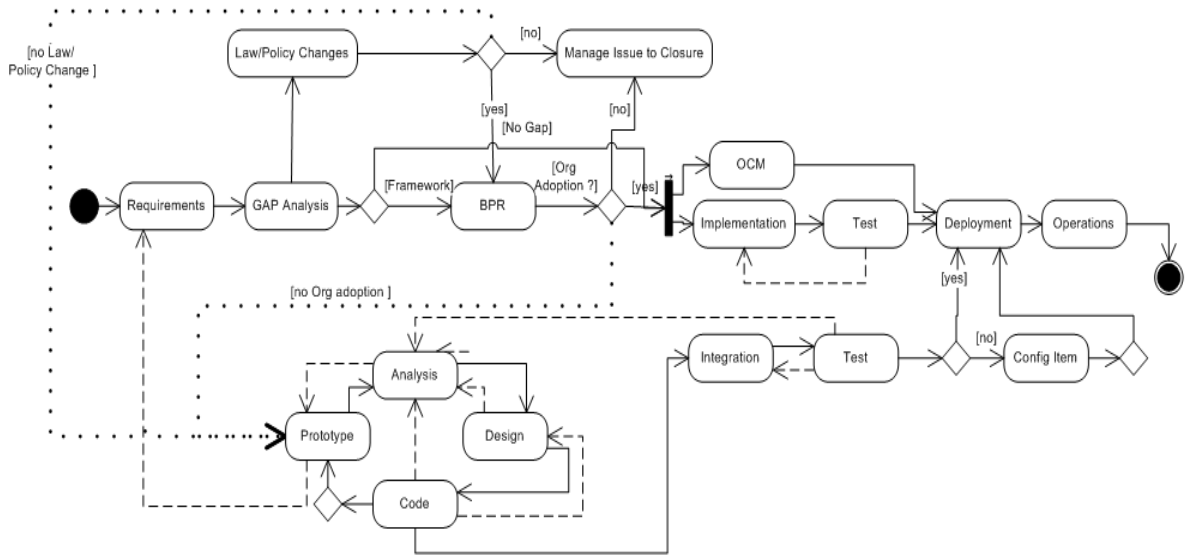
Figure 12 – New System – Buy/Build Approach – Lifecycle Methodology



Details of the approach to be taken for the Buy/Build approach can be found in Appendix C: Lifecycle Methodologies, Buy/Build a New System – Lifecycle Methodology

5. Business Assessment

This alternative starts with the purchase of a product that has been proven to be effective, enabling the State to move to a new solution in a shorter timeframe. This alternative is the fastest to deliver functionality, which is one of the highest priorities of stakeholders. Once the purchased application is installed, additional critical functionality will be met by custom-built services to the system. This approach will allow California to add functionality and respond quickly to changes in practice, policy, or legislation in the future.

This alternative contains a “sandbox” environment that can be implemented to allow users an opportunity to participate from the beginning of the development life cycle. Giving this sandbox environment to users has several immediate benefits. Users can become familiar with the system over a period of time and provide feedback to the development team. Early access supports effective organizational change management by having the users see the system and imagine their future. It also supports user learning processes by allowing users to work in the sandbox before and after any formal training. Delivered product training documentation can be the starting point for the development of formal training materials. As new functionality is added through the use of services, county users will be able to participate in the development process without having to leave their county office. This may increase the amount of overall participation by removing the barrier of cost and time to travel.

The process for development and implementation differs from a custom-development solution built to prescribed specifications. The purchased product functionality will be compared to the CWS-identified scope in a gap analysis. During the analysis, gaps and

differences will be documented. Once gaps are identified, decisions on the appropriate action will be reviewed and either a modification will be made by building a service, or by changing how the system or business rules are configured or how the data is entered into the system. The latter two actions can be tested in the sandbox environment prior to the more costly step of building a custom-built service.

As with any customization, a service is not a one-time cost. The challenge for this solution will be obtaining an existing product that meets the majority of California's unique business requirements.

The Buy/Build New Solution has the ability to support CWS practice and has the shortest time-to-benefits of all the alternatives.

6. SACWIS

This alternative can achieve SACWIS compliance. This alternative has the shortest completion time and cost as it starts with an existing product that addresses SACWIS compliance. Consequently, it is unlikely ACF will suspend SACWIS level funding with this alternative. If the purchased product is not consistent with each unique California requirement, additional services will be designed and implemented to meet them.

7. Timeline

The timeline to execute the Buy/Build approach has been provided with a focus on the procurement, development and deployment phases of the alternative.

8. Procurement

The following table identifies the tasks and durations to execute the procurement process for this alternative.

Table 21 – New System – Buy/Build Approach – Procurement Duration

Key Dates/Tasks	Develop RFP	County Review of RFP	Revise RFP	Review RFP	Release RFP	Bidders' Conference	Intent to Bid	Q&A	Confidentials	Prepare Addendum	Draft Proposal Evaluation	Draft Confidentials	Q&A	Addendum	Final Proposal Evaluation & Demo	Cost Opening	Intent to Award	Protest	Review and Approval	Award Contract	Total Months
Duration in Months	6.00	1.00	1.00	2.00	0.25	0.25	0.00	1.00	0.50	2.00	3.00	0.50	1.00	2.00	4.00	1.00		3.00			25.75

Development – Initial Release

The following table identifies the system and business function capabilities that will be delivered in the initial release.

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Table 22 – New System – Buy/Build Approach – Initial Business and System Functionality

System	Business Function
• Application Architecture	• Intake Management
• Infrastructure	• Case Management - Service / Case Plan
• Data Conversion (ancillary systems only)	• Case Management - Review, Evaluation, Monitoring
• Workflow	• Court Processing
• System Security	• Administration
• General Functionality	• Resource Management
• Other Functionality	• Quality Assurance
• Interfaces	• Adoptions
• Reporting	• Financial Management
	• Eligibility
	• Custom Increments (required to deliver minimum required capabilities)

Note: The custom increments in the first release includes two concurrent 12-month development cycles to fill gaps in the purchased system capabilities that are required to maintain the baseline of the CWS/CMS system.

CWS/CMS Decommissioning

The existing CWS/CMS will be decommissioned after delivery of this initial release.

Development – Future Release

The following table identifies the business function capabilities that will be delivered in the future release. In this alternative, allocation of functionality to the future release cycle will be based solely on prioritization established by the program.

Table 23– New System – Buy/Build Approach – Future Business and System Functionality

System	Business Function
	• Gaps not closed in the initial release
	• Critical Functionality Matrix capabilities not delivered in the initial release
	• New law, regulation or policy capabilities

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Deployment – Initial Release

Because this approach utilizes a centralized architecture and workstation access requires only a Web browser, deployment will be instantaneous to all users the moment that the system comes online. One month has been provided in the timeline to allow for ongoing user support (mainly additional training and question resolution) and decommissioning of previously-distributed architecture components.

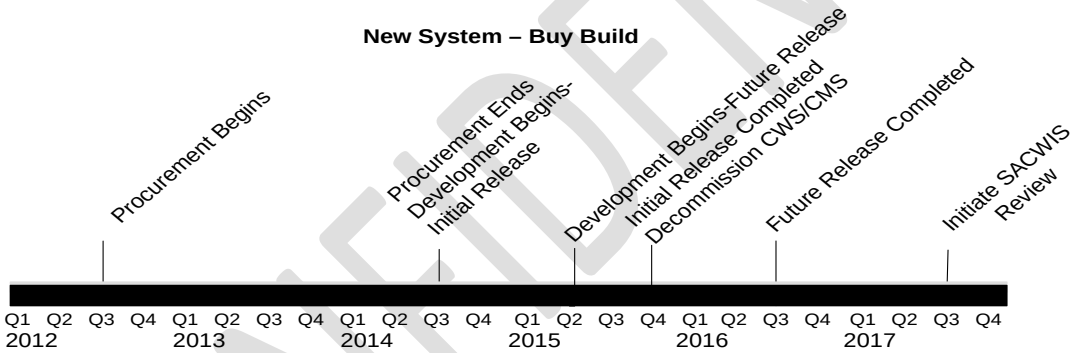
Deployment – Future Release

Like the initial release, deployment will be instantaneous to all users the moment that the future release business function is deployed. A period of one month has been provided in the timeline to allow for ongoing user support (predominately additional training and question resolution).

State Fiscal Year (SFY) Allocation

The following figure shows how the procurement, development and deployment phases will be allocated to state fiscal years during the duration of this alternative.

Figure 13 – New System – Buy/Build Approach – Timeline



9. Cost

The CAST estimates the total cost for the New System Buy/Build alternative to range between $826 million and $970 million. It consists of three components: one-time costs, ongoing costs, and continuing existing system costs.

The estimated one-time costs associated with this alternative range between $156 million to $184 million. These costs consist of project staffing, procurement of project support vendors, procurement of the system integrator, and the design, DD&I costs associated with building services. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $85 million, incurred between SFY 2012-13 and 2016-17.

Total continuing IT costs are estimated to average $47 million per year. These costs are associated with ongoing M&O activities of the new system, annual system updates and patches, county support, and other system upgrades and refreshes as applicable under the new M&O contract. With approved FFP of 50 percent, the approximate

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annual SGF cost would be $24 million beginning in SFY 2016-17, resulting in an annual SGF savings of approximately $23 million, in comparison to the existing CWS/CMS.

The estimated continuing existing-system costs range between $281 million and $329 million. These costs are attributable to maintaining the existing system as-is while the new system is being developed and implemented. These costs will occur concurrently with the one-time costs described above. With approved FFP of 50 percent, the total continuing existing-system costs to the SGF would be approximately $153 million, incurred between SFY 2012-13 and 2015-16.

The following table shows estimated costs broken out by one-time IT costs, continuing IT costs, and continuing existing IT costs by state fiscal year. The cost-estimating period for this alternative consists of costs through the end of procurement plus ten years of costs after contract award.

The cost estimates do not include CWS/CMS county or CWS program costs. One-time county goods and services costs have been estimated and are included in each of the alternatives' one-time cost estimates.

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Table 24 – New System – Buy/Build Approach – Costs

*Costs are rounded to the nearest million.

NEW SYSTEM → BUY/BUILD
(Costs Rounded to the Millions)

	PROCUREMENT		INITIAL RELEASE		FUTURE RELEASE	MAINTENANCE & OPERATION							TOTALS
	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	
One-time IT Costs	$ 14	$ 14	$ 93	$ 30	$ 19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 170
Continuing IT Costs	$ -	$ -	$ -	$ 42	$ 43	$ 44	$ 52	$ 45	$ 46	$ 47	$ 47	$ 57	$ 423
Continuing Existing IT Costs	$ 81	$ 82	$ 83	$ 59	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 305
Estimated Annual Totals	$ 95	$ 96	$ 176	$ 131	$ 62	$ 44	$ 52	$ 45	$ 46	$ 47	$ 47	$ 57	$ 898

The approximate one-time costs of $170 million for the Buy/Build alternative, is the lowest of all the alternatives. The one-time cost estimate period for this alternative is five years. With approved FFP of 50 percent, the total one-time cost to the SGF would be approximately $85 million, incurred between SFY 2012-13 and 2016-17.

Continuing IT costs for the new M&O are estimated to begin after the implementation of the initial release. Continuing existing IT costs are estimated to be incurred for four years, during the same period required to procure the alternative and implement the initial release.

The CWS Program incurs county costs that vary from year to year based on county needs. Due to the variance, these costs are not included in any of the estimates of this report.

Cost estimates were based on existing CWS/CMS costs, previously-approved CWS/Web project costs, DGS pricing resources, and a 3.5 percent increase to account for vendor labor cost escalation.

10. Risks

- Inability to agree on terms and conditions with the selected vendor during contract negotiations may delay the schedule and delivery date of the solution.
- Existing staffing levels may be insufficient to develop and complete the RFP and contracting process.
- Policy, regulation, and legislative changes during DD&I may delay the delivery date of the solution and increase costs.
- A high number of requests for the development of services may increase costs and delay delivery of the new system.
- Unanticipated tasks associated with the complexities of upgrading the current system may require additional funding.
- Maintenance costs for the existing system may continue to increase over time and may become cost-prohibitive.

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- Inability to incorporate legislative or policy changes in a timely manner or at all, due to technical limitations of the system, may jeopardize continued federal funding and/or incur fines or other penalties

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Section VI
Federal Communication on SACWIS Requirements

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December 28, 2011

VI. FEDERAL COMMUNICATION ON SACWIS REDESIGN REQUIREMENTS

This section addresses the AB 106 request to "assess and report on communication from the federal government regarding requirements of the system, both by the January 1, 2012 deadline and thereafter when there is additional direction on federal expectations."

At this time, ACF has made no announcement of changes in SACWIS requirements and there is no indication that a specific plan or timeframe for completing this process is in place. Informal and unofficial federal communications suggest that the summer of 2012 is the earliest potential date for completion of any proposed SACWIS revisions. Pending ACF completion of internal processes, the normal federal regulatory processes of publishing proposed changes, obtaining public comment, and issuing final regulations will follow.

Other than input requested and provided to the Federal Register in the spring of 2011, there is no formal process to provide input to ACF in advance of the formal federal regulatory proposal and public comment period at this time. CDSS has had informal communications with ACF on this matter since the spring of 2011. CDSS suggested that ACF should consider obtaining additional input from states prior to developing and issuing proposed regulatory changes. There are precedents for doing so, such as provision of input on program outcome measures and some data reporting requirements that eventually went through the standard federal regulatory process. At this time, there is no indication of what, if any, SACWIS changes may be under consideration by the federal government.

CDSS and OSI staff added CWDA to the listing of call participants on conference calls with ACF weekly and monthly and continue to meet ACF reporting requirements that address current federal and state CWS/CMS operational, funding, and procurement approval processes, as well as the indefinite suspension of the CWS/Web project.

ACF has informally indicated a willingness to continue to work with California to achieve the goal of SACWIS compliance. ACF staff has advised that a suspension of SACWIS-level FFP for CWS/CMS operation is unlikely if California continues to make reasonably timely progress toward the goal of SACWIS compliance subsequent to the CWS/Web project suspension. ACF has also advised us that it is unlikely that the current federal Administration will repeat the sudden suspension of SACWIS FFP that occurred in 2003-04 due to multiple SACWIS-related issues.

ACF staff visited California to discuss current SACWIS status and issues on September 12 and 13, 2011. The visit provided an excellent opportunity to share concerns, challenges, and opportunities relative to CWS/CMS operations, SACWIS compliance, and the current suspension-related efforts to reassess California's future strategy. ACF included CDSS, OSI, CWDA, county, and other stakeholders in these meetings.

The fiscal consequences of non-compliance with federal SACWIS standards could be in the hundreds of millions of dollars. In the event California does not become SACWIS compliant, in addition to a reduction in FFP for ongoing CWS/CMS costs the State could be required to pay back the difference between the higher level SACWIS FFP and the

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regular Title IV-E FFP for both development and operational expenditures since the initiation of CWS/CMS in 1993. ACF was unable to provide an estimate of what a worst case payback liability would be at this time. Calculating this amount requires a review of all approved budgets and actual federal paid claims for all State development and operational costs as well as all county goods and services that received SACWIS level FFP. Once ACF determines what that amount is, the State will be provided an opportunity to reduce the payback amount by providing documentation that the expenditures were cost-beneficial to the program, even though SACWIS compliance was not achieved. However, even with this negotiation process, potential payback of SACWIS FFP over the life of CWS/CMS could amount to hundreds of millions of dollars.

In the event that there must be a partial or full payback of SACWIS FFP, the payback method is likely to be a negotiated agreement adjusted out of the State and county Title IV-E claims over a number of fiscal quarters. That process will result in de facto reductions in FFP for all IV-E funded services over a lengthy time period.

ACF has been cooperative and supportive of the request by the California Legislature for a legislative report and the reconsideration of child welfare automated system needs. ACF input reflects some of its ongoing concerns about the State's ability to comply with SACWIS. Such concerns include inadequate resource commitments to develop missing functionality, and the eventual full utilization of the system in a county-administered operational environment. ACF has also continued to remind the State that SACWIS participation, with its ability to claim higher federal funding, is voluntary, and that the State should consider its program needs as the primary criteria for determining system functionality.

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Section VII
Recommendation and Next Steps

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VII. RECOMMENDATION AND NEXT STEPS

This section addresses the AB 106, request to "recommend next steps, including a timeline, for implementing the recommended approach or approaches."

A. Recommendation

Based on the analysis and evaluation of alternatives in this report, CDSS, in partnership with OSI and stakeholders, recommends a new procurement to replace CWS/CMS with the New System Buy/Build alternative described in Section V.F: Option 2 – Build a CWS New System Using a Buy/Build Approach (e.g., Transfer System/COTS). This alternative received the highest score when evaluated using the criteria weighted by stakeholders in the evaluation framework as shown in Appendix B: Evaluation Framework. This alternative delivers the missing critical functionality in the shortest timeframe at the lowest cost. In addition, this alternative is the best fit for achieving the current and future needs of child welfare services, as it has the ability to:

- Provide the functionality needed to support current and future child welfare practice.
- Be a single statewide system of record.
- Efficiently automate future changes to practice and programs.
- Exchange data with business partners.
- Be a Web-based solution.
- Reach SACWIS compliance.

The recommended alternative, New System Buy/Build, is the most suitable alternative overall. It is the alternative that (1) provides functionality the fastest, with its "out-of-a-box" approach for initial implementation, (2) ranked best in time for being able to reach full-benefit realization, and (3) ranked as the best-cost option with the lowest ten-year TCO among all the alternatives.

It will deliver all the needed critical functionality in two releases. The initial release of the New System Buy/Build will allow the decommissioning of CWS/CMS and over 100 external systems throughout the State in Fiscal Year 2015/2016. Future release will occur late in 2016, which will allow the State to prepare for a SACWIS review which could begin in 2017.

B. Other Factors to Consider

There are a number of initiatives to implement U.S. Department of Health and Human Services (HHS) IT hardware systems and software services over the next few years. The most notable initiatives (based on size and impact) to the agency include:

- IT efforts associated with the California eHealth Initiative
- The Centers for Medicaid and Medicare Services (CMS) regulation changes for enhanced federal funding and cost allocation waivers (i.e.,

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OMB A-87: Cost Principles for State, Local, and Indian Tribal Governments)

- The Leader Replacement System (LRS).

The CWS/CMS replacement system assessed in this report would also fall into the above size/impact grouping.

The federal government is providing enhanced funding to acquire hardware systems and software services to support HHS program deliveries, provided they meet federal funding guidelines and requirements.

A common theme in the federal funding guidelines and requirements is the development of IT hardware systems and software services based on open standards that ensure modularity, interoperability, scalability, and flexibility. The federal objective is to better manage costs by (1) reducing the number of stand-alone, duplicative systems currently in production and (2) promoting each state's ability to leverage, reuse, and share system components and technologies. This ability to share existing hardware components and software services will reduce the time required to develop and implement new systems (deliver business value), reduce the one-time implementation costs, and reduce the continuing costs for maintenance and operations.

CDSS has an excellent opportunity to maximize access to and utilization of the benefits of this enhanced federal funding through collaboration with these other HHS initiatives. The recommended alternative, New System Buy/Build, contains a hardware architecture modernization [based on Service-Oriented Architecture (SOA) concepts] and a software implementation that aligns with the requirements of the aforementioned initiatives. Through collaboration with and leveraging of the IT hardware systems and software services related to the initiatives, CDSS can facilitate reduction of the overall time and costs required to deliver and maintain the CWS/CMS replacement system. Implementing this strategy of separating the hardware architecture and the software services when developing systems will establish an operational baseline that other state departments can use to plan for and achieve similar one-time and ongoing system costs reductions.

Since these potential collaborative initiatives are in their early stages, it was not possible to measure, estimate or include the potential one-time and ongoing cost reductions in the preparation of this report. As part of its planning phase, the CAST plans to conduct further analysis on the progress of these initiatives and the guidelines for acquiring (or participating in) the enhanced federal funding. That analysis will establish whether CDSS can leverage the IT hardware systems and/or software services related to these initiatives as part of the execution of the recommended buy/build alternative.

C. Next Steps and Timeline

The CAST released an RFI in September 2011 to determine the viability of using a transfer system or COTS as the base for California's Buy/Build solution. The RFI asked the vendor community if they had an existing system (e.g. Transfer system, COTS) that can support key CWS business areas, including information about the architecture

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model, and completed installations. Eight responses were received and several of them met the needs of the State.

The CAST released a second RFI in November 2011. Detailed gap analysis is still ongoing. Based on initial market responses from the first RFI, sufficient vendor capability appears to exist to justify a Buy/Build alternative.

An As-Needed Advanced Planning Document (APD) Update is anticipated for approval by ACF during the second quarter of 2012.

The BCP/Premise and FSR are anticipated for approval during the third quarter of 2012.

In the fourth quarter of 2012, the PAPD Update is anticipated for approval by ACF and annually thereafter.

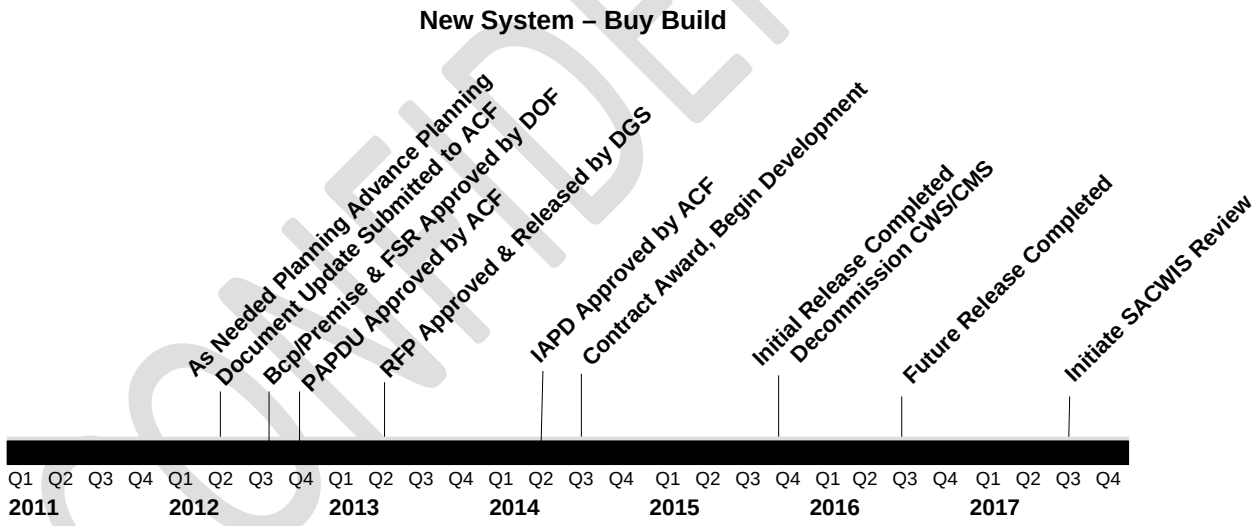
In the second quarter of 2013, the RFP is anticipated for approval and release by DGS.

In the second quarter of 2014, the IAPD is anticipated for approval by ACF.

Contract award and the beginning of development are anticipated during the third quarter of 2014.

The following timeline is estimated for the recommended alternative.

Figure 14 – New System – Buy/Build Approach – Timeline



D. Procurement Approach

Various procurement vehicles are available for the purchase of Information Technology (IT) goods and services that are in compliance with federal and state contract regulations [e.g., Request for Offer (RFO), RFP, Invitation for Bid (IFB), and Alternative Procurement Process (APP). An RFO is a procurement vehicle which uses pre-existing or leveraged procurement agreements to buy IT goods and services for contracts under $1.5 million. An RFP is a competitive procurement vehicle used to acquire goods and services that are typically more complex in nature and of a higher value than a leveraged procurement vehicle. Conversely, an IFB is also a competitive procurement

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vehicle; however, its use is restricted to procurements where the acquirer knows exactly what solution it wants and can write to specific requirements detailing the solution. Of the competitive procurement approaches possible, an RFP is used when the intended solution is unclear and bidders must describe and propose a best value solution for the State.

While these vehicles are appropriate for most acquisitions, some business problems offer unique challenges where the use of different procurement strategies, within a competitive framework, may better meet the State's needs. In such cases, under Public Contract Code (PCC) Section 6611, the acquiring agency can request an exemption to conduct procurement under an APP. PCC Section 6611(a) authorizes the DGS to use a negotiation process under certain circumstances when procuring or contracting for goods, services, IT, and telecommunications.

A multi-step APP uses a two-staged procurement process, allowing bidders to submit proposals, demonstrate prototypes, and submit final bids. During this process, the State and bidders can communicate through multiple confidential discussions, which promote a better understanding of business needs. The final selection is based on the best value which best meets and potentially exceeds the requirements with the most reasonable overall cost and acceptable level of risk.

For each alternative discussed above, using an RFP will be the most effective way to achieve the best-value solution in the shortest timeframe, while allowing the broadest level of competition, fairness, and compliance with state and federal procurement regulations. The timeline for the procurement phase varies for each alternative. The length of the timeline is dependent on the time necessary for the development of the RFP and the subsequent procurement cycle. Where an alternative can leverage the already-developed CWS/Web RFP, the development of the RFP will be shorter and the subsequent vetting process during the procurement phase will similarly be shorter. A shorter procurement phase results in a lower procurement staffing level resulting in decreased staffing costs.

The chosen solution alternative, New System/Buy-Build, proposes purchasing a prebuilt application system and building additional functionality. A system integrator will be needed to implement the solution and build, integrate, and deploy any custom-built services. An RFP will be used to procure the SI. The actual development period of the RFP will be shorter than the other alternatives as it is presumed that the purchased component of the application will meet current operational functionality, resulting in less time needed to develop technical requirements. Although RFP development time is shorter, the State will have the ability to communicate with vendors during confidential discussions and to evaluate vendor demonstrations to better allow for selection of the best value to the State. The entire procurement phase for this alternative is 26 months, with six months for development of the RFP. Subsequent to release of the base functionality and completion of any custom-built services, the SI will provide maintenance and operation services for the term of the contract.

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Section VIII
Appendices

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VIII. APPENDICES

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APPENDIX A: CRITICAL FUNCTIONALITY ASSESSMENT AND METHODOLOGY

This section shows the structured approach used to assess critical functionality for each alternative. The approach included data gathering, analysis, and validation to identify and rank missing critical functionality and existing functionality that needs improvement. The following describes these steps in more detail:

1. Data Gathering

The team gathered data from several sources including:

- CWS/Web RFP requirements
- TAAA Report
- Unimplemented CWS/CMS system change requests
- State and federal statutes and policies
- PIAC
- TAC
- OSC

2. Data Analysis

The CAST analyzed historical shelf data as well as input from the PIAC, TAC and OSC meetings to identify the missing functionality and existing functionality that needs improvement. A functionality spreadsheet was prepared to capture and categorize the critical functionalities identified into discrete functional areas (e.g., case management and eligibility determination). These critical functionalities were then analyzed against SACWIS requirements, state and federal statutes/policies, and CWS practice needs to determine which ones were impacted each of these.

3. Data Validation

The CAST requested the CWS/CMS governance committees (i.e., PIAC, TAC, and OSC) validate the functionalities shown on the functionality spreadsheet and add any functionality not listed. The committees were then asked to rate the functionalities as high, medium or low based on the critical functionality rating scale table below.

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Table 25 – Critical Functionality Rating Scale

Rating	Criteria
High	• SACWIS requirement • Has system-wide impact affecting a significant number of users • Adversely affects federal and or state reporting • Adversely affects the accomplishment of an essential function • Has significant positive or negative impact to program performance and productivity • Alternative process available but not cost effective (requires significant manual effort) • Creates a public relations risk
Medium	• Meets definition of a "High" priority change but has a cost effective interim alternative process • Has minor positive or negative impact to program performance and productivity
Low	• A cost-effective permanent alternative process is available • Results in user/operator inconvenience or annoyance but does not affect a required operation or mission essential function • Impacts a small group of users

The CAST used results from the data analysis and validation to determine the missing and existing functionality deemed critical. Each element of functionality that received a rating of "high" was categorized as "critical functionality" in this report. The CAST used the list of critical functionality coupled with the functionality available in CWS/CMS as the basis for scoping and evaluating the technical alternatives under study. The exception was for the alternative of restarting the CWS/Web project, which used the existing RFP requirements as the basis for scoping and evaluation.

4. Critical Functionality Assessment Tables

The following tables show the analysis conducted to determine the missing critical functionality and the critical existing functionality that requires modification in CWS/CMS.

Table 26 – Column Definitions for Critical Functionality List provides the definitions and clarification for each column in Table 27 – List of Critical CWS/CMS Existing Functionality Needing Improvement.

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Table 26 – Column Definitions for Critical Functionality List

Column Header	Definition/Clarification for Column Header
Function Category	This column lists the functional areas that have been identified as needs improvement at a high level, such as Intake Management and Case Management.
Sub Category	This column lists the subcategory that has been identified as needs improvement if applicable to the high level functional category.
Description	This column has a brief description of the functionality which requires modification.
Modification Required	If there is a check mark in this column, there is existing functionality in CWS/CMS that needs improvement or enhancement.
Workaround in Place	If there is a check mark in this column, there is existing functionality in CWS/CMS that is considered a workaround or combination of an external work around with CWS/CMS functionality to meet the business need.

The following table shows CWS/CMS functionality that requires modification, identified by the joint county/state CWS/CMS governance structure as critical.

Table 27 – List of Critical CWS/CMS Existing Functionality Needing Improvement

Critical CWS/CMS Existing Functionality Needing Improvement			
Category	Subcategory (if applicable)	Needs Improvement	Workaround in place
Case Management	Placement	√	
Case Management	Probation	√	√
Case Management	Court-JV Documents	√	√
Case Management	Independent Living Program	√	√
Case Management	Case Plan	√	
Case Management	Interstate Compact on the Placement of Children	√	√
Case Management	Health & Education Information	√	√
Case Management	Wraparound	√	√
Court Processing	Findings & Orders	√	
Data Access	Simplify Data Entry	√	√

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Critical CWS/CMS Existing Functionality Needing Improvement			
Category	Subcategory (if applicable)	Needs Improvement	Workaround in place
Document Management	Storage & Access	√	√
General Capability	Search	√	
General Capability	Contact	√	√
General Capability	Safety/Risk Assessment	√	√
General Capability	Sensitive/Sealed	√	
General Capability	Local Document Management	√	
General Capability	Recording and tracking new Initiatives	√	
General Capability	Agency responsible/case continuity (300/600/450)	√	√
Intake Management	Differential Response	√	√
Interface	CDE (School/ education data)	√	√
Interface	LIS	√	
Optimistic concurrency	Loss of data due to multiple users in a case	√	√
Other Functionality	Family Relationships	√	√
Quality Assurance		√	
Reporting Solution	Standardized reports/data extracts	√	√
Technical	Application (Multiple) Upgrades	√	√

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The following table describes each column used in Table 29 – Missing Critical Functionality per Legislative Mandate.

Table 28 – Column Definitions for Missing Critical Functionality per Legislative Mandate

Column Header	Definition/Clarification for Column Header
Function Category	This column lists the functional areas that have been identified as missing at a high level, such as Intake Management and Case Management.
Subcategory	This column lists the subcategory that has been identified as missing if applicable to the high level functional category.
Description	This column has a brief description of the missing critical functionality.
SACWIS	If there is a check in this column, the functionality is missing (not in CWS/CMS) and it is required by SACWIS.
Fed/State Regulation/Policy	If there is a check in this column, the functionality is missing (not in CWS/CMS) and it is required by federal or state regulations/policy other than SACWIS.

The following table shows the missing functionality identified by the joint county/state CWS/CMS governance structure as critical to meeting legislative mandates.

Table 29 – Missing Critical Functionality per Legislative Mandate

Missing Critical Functionality			
Category	Subcategory (if applicable)	SACWIS	Fed/State Reg/Policy
Administration	Workflow		
Administration	Self Service (i.e. NYTD Survey, Caregivers)		
Administration	Role Based Access		
Administration	Archiving	√	
Case Management	Adoptions	√	√
Case Management	Services (Requests & referrals)		
Case Management	Emancipated Youth		√
Court Processing	Joint assessment process (241.1)		√
Eligibility Determination		√	√
Financial Management		√	√
General Capability	Background Checks		
General Capability	Calendaring		

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Missing Critical Functionality			
Category	Subcategory (if applicable)	SACWIS	Fed/State Reg/Policy
Intake Management	Recording and tracking search/ interview/detention warrants		√
Interface	Title IV-A (SAWS)	√	
Interface	Title IV-D (CCSAS)	√	√
Interface	Title XIX (MEDS)	√	
Interface	Statewide Client Index		
Interface	Child Abuse Central Index		√
Interface	California Court Case Management System		√
Interface	Social Security (AFCARS/benefit data)	√	√
Interface	Medicaid Management Information Decision Support System		
Interface	DMV (Client Data)		
Interface	County Payment Systems (financial data)	√	
Interface	California Outcomes Measurement System		
Interface	Automated Vital Statistics System		
Interface	Electronic Death Registration System		
Interface	Employment Development Dept. (Client Data)		
Interface	California Department of Mental Health (Client Data/Delivered Services)		√
Interface	CDSS - Master Adoption Index		√
Interface	California Department of Developmental Services (Child Welfare Data Analysis Bureau/Dual Agency data)		√
Interface	California Department of Corrections and Rehabilitation (Child Welfare Data Analysis Bureau/Client data)		√
Other Functionality	Electronic Signatures		
Resource Management	Resource Directory		

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APPENDIX B: EVALUATION FRAMEWORK

1. Introduction

This section outlines the evaluation framework the CAST utilized to assess and select the best technical alternative to support CWS practice in a single statewide automated system.

2. Summary of Evaluation Process

The study evaluation process and methodology are based upon the CWS/CMS TAAA evaluation framework. The evaluation process and framework emphasized the degree to which each alternative compares to the specific evaluation factors and criteria. This approach provided greater sensitivity to how well or how poorly each alternative compared using each criterion. Evaluation was based on independent judgment, the understanding by the team of CWS critical needs and priorities, and expert opinion. The following table provides an overview of the evaluation process.

Table 30 – Evaluation Process

Process/Event	Description
Gather data	Data were gathered from prior research, historical shelf data, best practices, and subject matter experts from OTech, Tech Agency, CWDA, PIAC, TAC, OSC, and others.
Identify and analyze a range of technical alternative solutions	The CAST conducted extensive analysis of the alternatives, including development of alternative scenarios, schedules and a 10-year Total Cost of Ownership
Validated technical alternative solutions	Governance Structure committees reviewed and vetted the technical alternative solutions being considered by the CAST.
Identify criteria against which to measure the potential alternatives	The CAST identified factors and criteria similar to the TAAA. The criteria were validated by the Governance Structure committees.
Weight evaluation criteria to represent assessment priorities	The Governance Structure committees reached consensus on the weighting of the evaluation criteria.
Assess each alternative's ability to meet the defined criteria based on a rating scale	The CAST used expert opinion to assess the capability of each alternative to meet the individual criteria.
Conduct a separate cost evaluation using the ten (10) year	The CAST conducted a separate cost evaluation, similar in respects to the methods used by the State

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Process/Event	Description
total cost of ownership of each alternative to assign points based on a cost-variance formula	to evaluate costs in a competitive bid.
Derive a score for each alternative	Following the allocation of cost and non-cost points (total of 1000 points available), the CAST selected the alternative with the highest score as the recommended solution for CWS.

3. Evaluation Factors and Criteria

The CASE developed and categorized the non-cost evaluation factors for the proposed technical alternatives in five major areas: CWS Business Needs, Technical Viability, SACWIS, Time, and Risks. The criteria defined the critical functional and technical considerations which differentiate the viability of the alternatives in meeting currently established business needs. The following table provides an overview of the non-cost evaluation factors and criteria.

Table 31 – Non-Cost Evaluation Factors and Criteria

CWS Business Needs	
Ability to meet missing critical functionality	The alternative's ability to support missing functionality critical to CWS operations.
Ability to improve existing functionality	The alternative's ability to support the enhancement and or modifications of the functionality currently available.
Ability to improve usability	The alternative's ability to improve the user interface. Usability is the measure of the effectiveness and efficiency of a user's experience using a system. Usability characteristics include: Ease of learning – how quickly can new users learn to accomplish basic tasks. Ease of system navigation – if a user has used the system before, can he or she remember "how" to do something, or do they have to relearn the task. Error frequency and severity – how often do users make mistakes and are they able to recover from those mistakes.

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Technical Viability	
Ability to support new functionality	The alternative's ability to support the addition of the new functionality as needed due to CWS practice changes.
Manageability/simplicity	The alternative's ability to provide sets of information related to system health, performance, and usage, and the ability to be controlled and configured easily.
Architectural openness	The alternative's ability to support multiple vendors or products to prevent "lock-in" and encourage procurement competitiveness.
Scalability	The ease with which the alternative can be altered to effectively and efficiently service user and system demands.
Flexibility and extensibility	The alternative's ability to easily support augmentation without compromising the original architecture.
Ease of integration/interface standardization	The ability of the alternative to integrate or provide interfaces to other systems via common industry standard protocols and services.
SACWIS	
Ability to become SACWIS compliant	The alternative's ability to incorporate the SACWIS required functions including the required interfaces.
Ability to receive full FFP	The alternative's ability to implement the SACWIS requirements in a manner that ensures the continuance of FFP funding.
Time	
Ability to provide missing critical functionality and improve existing functionality in a timely manner	The alternative's ability to deliver new functionality in a timely fashion (irrespective of the time to obtain approvals for the changes).
Ability to deliver benefits incrementally over time	The ability of the alternative to deliver benefits incrementally over time.

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Risks	
Financial Risk	The alternative's risk of deviation from the proposed budget.
Technical Risk	The alternative's risk related to the complexity of development and implementation.
Operational Risk	The alternative's risk associated with disruption to current operational processes and routines.
Program Risk	The alternative's risk associated with disruption to program processes and routines.
Competitive Procurement Risk	The alternative's ability to provide for market competitiveness.
Schedule Risk	The alternative's risk of deviation from the proposed schedule.
Implementation Risk	The alternative's ability to limit risk / complexity associated with implementation.

4. Rating Process

The CAST evaluated each alternative according to the evaluation factors and criteria. Then each alternative was assigned a rating for the evaluation criteria. Each rating was assigned a percentage of points to complete the scoring process. The following table illustrates the ratings utilized as part of the evaluation process.

Table 32 – Rating Scale

Rating	General Rating Framework	Percentage of points achieved
Excellent	The alternative's ability to meet the evaluation criteria exceeds the standards.	**100%**
Above Average	The alternative's ability to meet the evaluation criteria is above standards.	**75%**
Acceptable	The alternative's ability to meet the evaluation criteria meets standards.	**50%**
Marginally Acceptable	The alternative's ability to meet the evaluation criteria is below the standards.	**25%**
Unacceptable	The alternative does not meet the standards.	**0%**

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5. Scoring Process

For the non-cost evaluation, the CAST assessed each of the alternatives according to the evaluation factors and criteria. The alternatives were assigned a rating for each non-cost criteria. The CAST assigned each rating a percentage of points to complete the scoring process. Total points available for the non-cost evaluation were 850 (out of 1000 total points). The following table illustrates the criteria and criteria weightings used for this analysis.

Table 33 – Non-Cost Criteria and Criteria Weightings (Available Points)

Evaluation Factors	Criteria	Available Points
CWS Business Needs	Ability to meet missing critical functionality	100
	Ability to improve existing functionality	100
	Ability to improve usability	100
	Sub-Total	**300**
Technical Viability	Ability to support new functionality	45
	Manageability/Simplicity	25
	Architectural openness	25
	Scalability	35
	Flexibility and extensibility	35
	Ease of integration/interface standardization	40
	Sub-Total	**205**
SACWIS	Ability to become SACWIS compliant	5
	Ability to receive full Federal Financial Participation	20
	Sub-Total	**25**
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125
	Ability to deliver benefits incrementally over time	125
	Sub-Total	**250**
Risks	Financial Risk	13
	Technical Risk	9
	Operational Risk	9
	Program Risk	12
	Competitive Procurement Risk	9
	Schedule Risk	9
	Implementation Risk	9
	Sub-Total	**70**
	Total	**850**

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6. Cost Scoring Methodology

The CAST calculated the estimated cost score for each alternative using the following methodology. The score is based on the estimated cost (i.e., the lowest cost alternative divided by each alternative) and the maximum points. Each alternative cost score was calculated by multiplying the cost factor by the maximum number of points available to obtain the cost score. The cost factors were carried out three decimal places for the calculations, and the points were rounded up or down to the closest whole number.

The following table illustrates the computation process[1], assuming the example "Alternative 3" is the alternative with the lowest cost estimate.

Table 34 – Example of Cost-Scoring Methodology

Alternative	Proposed Cost	Cost Factor	Maximum Points	Calculation	Cost Score
1	$71,250	$\frac{\$59,750}{\$71,250}$ = .832	150	.832 X 150	125
2	$67,500	$\frac{\$59,750}{\$67,500}$ = .885	150	.885 X 150	133
3	$59,750	$\frac{\$59,750}{\$59,750}$ = 1.000	150	1000 X 150	150

Scores for each of the five major areas: CWS Business Needs, Technical Viability, SACWIS, Time, and Risks were combined with the cost score to calculate final scores with the maximum of 1,000 points.

7. Scoring Results

The New System— Buy/Build alternative was determined to be the best alternative to support California CWS practice in a single statewide automated system. The following table illustrates the total scores for each alternative.

Table 35 – Total Scores for all Alternatives

Alternatives	CWS/CMS Upgrade	Restart CWS/Web	New System Incremental	New System Buy/Build
Total Score	304.8	762.3	876.6	904.8

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

[1] Figures in the example explain the computations and have no other significance.

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8. Non-Cost Scoring Results

For the non-cost evaluation, the alternatives were compared using each criterion and rated in terms of how well each alternative met the specific criteria. The following table provides a visual representation of this process. The New System – Buy/Build alternative performed the best against the criteria. Visual representation is used to indicate what percentage of points each alternative achieved for each category in Table 37 – Non-Cost Scoring Results of All Alternatives.

Table 36 – Visual Representation of Non-Cost Scoring Evaluation Ratings

Rating	Percent of Points Achieved	Visual
Excellent	100%	●
Above Average	75%	◕
Acceptable	50%	◑
Marginally Acceptable	25%	◔
Unacceptable	0%	○

Table 37 – Non-Cost Scoring Results of All Alternatives

Factors	Criteria	CWS/CMS Upgrade Incremental	CWS/Web Restart	New System Incremental	New System Buy/Build
CWS Business Needs	Ability to meet missing critical functionality	◑	●	●	◕
	Ability to improve existing functionality	◑	●	●	◕
	Ability to improve usability	◑	●	●	◕
Technical Viability	Ability to support new functionality	◑	●	●	●
	Manageability/Simplicity	◑	◕	◕	●

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Factors	Criteria	CWS/CMS Upgrade Incremental	CWS/Web Restart	New System Incremental	New System Buy/Build
	Architectural openness	◔	●	●	◕
	Scalability	◔	●	●	●
	Flexibility and extensibility	◔	●	●	◕
	Ease of integration /interface standardization	◔	◑	◕	●
SACWIS	Ability to become SACWIS compliant	◑	●	●	●
SACWIS	Ability to receive full Federal Financial Participation	◑	◕	●	●
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	◑	◑	◕	●
Time	Ability to deliver benefits incrementally over time	◑	◑	◕	●
Risks	Financial Risk	◑	◑	◕	●
Risks	Technical Risk	◑	◑	◕	●
Risks	Operational Risk	◔	◔	◕	●
Risks	Program Risk	◔	◔	◕	◕
Risks	Competitive Procurement Risk	◑	◑	◕	◕
Risks	Schedule Risk	◑	◑	◕	●
Risks	Implementation Risk	◑	◔	◕	●

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The tables below provide the detailed assessment of each alternative against the specified criteria using the rating scale.

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Table 38 – Alternative 1 – CWS/CMS Upgrade – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Acceptable	50%	50.0
	Ability to improve existing functionality	100	Acceptable	50%	50.0
	Ability to improve usability	100	Acceptable	50%	50.0
	Sub-Total	300			150.0
Technical Viability	Ability to support new functionality	45	Acceptable	50%	22.5
	Manageability/Simplicity	25	Acceptable	50%	12.5
	Architectural openness	25	Marginally Acceptable	25%	6.3
	Scalability	35	Marginally Acceptable	25%	8.8
	Flexibility and extensibility	35	Marginally Acceptable	25%	8.8
	Ease of integration/interface standardization	40	Marginally Acceptable	25%	10.0
	Sub-Total	205			68.8
SACWIS	Ability to become SACWIS compliant	5	Acceptable	50%	2.5
	Ability to receive full Federal Financial Participation	20	Acceptable	50%	10.0
	Sub-Total	25			12.5
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Acceptable	50%	62.5
	Ability to deliver benefits incrementally over time	125	Acceptable	50%	62.5
	Sub-Total	250			125.0
Risks	Financial Risk	13	Acceptable	50%	6.5
	Technical Risk	9	Acceptable	50%	4.5
	Operational Risk	9	Marginally Acceptable	25%	2.3
	Program Risk	12	Marginally Acceptable	25%	3.0
	Competitive Procurement Risk	9	Acceptable	50%	4.5
	Schedule Risk	9	Acceptable	50%	4.5
	Implementation Risk	9	Acceptable	50%	4.5
	Sub-Total	70			29.8
	Total	850			386.1

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Table 39 – Alternative 2 – Restart CWS/Web – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Excellent	100%	100.0
	Ability to improve existing functionality	100	Excellent	100%	100.0
	Ability to improve usability	100	Excellent	100%	100.0
	Sub-Total	300			300.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Above Average	75%	18.8
	Architectural openness	25	Excellent	100%	25.0
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Excellent	100%	35.0
	Ease of integration/interface standardization	40	Acceptable	50%	20.0
	Sub-Total	205			178.8
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0
	Ability to receive full Federal Financial Participation	20	Above Average	75%	15.0
	Sub-Total	25			20.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Acceptable	50%	62.5
	Ability to deliver benefits incrementally over time	125	Acceptable	50%	62.5
	Sub-Total	250			125.0
Risks	Financial Risk	13	Acceptable	50%	6.5
	Technical Risk	9	Acceptable	50%	4.5
	Operational Risk	9	Marginally Acceptable	25%	2.3
	Program Risk	12	Marginally Acceptable	25%	3.0
	Competitive Procurement Risk	9	Acceptable	50%	4.5
	Schedule Risk	9	Acceptable	50%	4.5
	Implementation Risk	9	Marginally Acceptable	25%	2.3
	Sub-Total	70			27.5
	Total	850			651.3

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Table 40 – Alternative 3, Option 1 – CWS New System – Custom – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Excellent	100%	100.0
	Ability to improve existing functionality	100	Excellent	100%	100.0
	Ability to improve usability	100	Excellent	100%	100.0
	Sub-Total	300			300.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Above Average	75%	18.8
	Architectural openness	25	Excellent	100%	25.0
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Excellent	100%	35.0
	Ease of integration/interface standardization	40	Above Average	75%	30.0
	Sub-Total	205			188.8
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0
	Ability to receive full Federal Financial Participation	20	Excellent	100%	20.0
	Sub-Total	25			25.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Above Average	75%	93.8
	Ability to deliver benefits incrementally over time	125	Above Average	75%	93.8
	Sub-Total	250			187.5
Risks	Financial Risk	13	Above Average	75%	9.8
	Technical Risk	9	Above Average	75%	6.8
	Operational Risk	9	Above Average	75%	6.8
	Program Risk	12	Above Average	75%	9.0
	Competitive Procurement Risk	9	Above Average	75%	6.8
	Schedule Risk	9	Above Average	75%	6.8
	Implementation Risk	9	Above Average	75%	6.8
	Sub-Total	70			52.5
	Total	850			753.8

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Table 41 – Alternative 3, Option 2 – CWS New System – Buy/Build – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Above Average	75%	75.0
	Ability to improve existing functionality	100	Above Average	75%	75.0
	Ability to improve usability	100	Above Average	75%	75.0
	Sub-Total	300			225.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Excellent	100%	25.0
	Architectural openness	25	Above Average	75%	18.8
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Above Average	75%	26.3
	Ease of integration/interface standardization	40	Excellent	100%	40.0
	Sub-Total	205			190.0
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0
	Ability to receive full Federal Financial Participation	20	Excellent	100%	20.0
	Sub-Total	25			25.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Excellent	100%	125.0
	Ability to deliver benefits incrementally over time	125	Excellent	100%	125.0
	Sub-Total	250			250.0
Risks	Financial Risk	13	Excellent	100%	13.0
	Technical Risk	9	Excellent	100%	9.0
	Operational Risk	9	Excellent	100%	9.0
	Program Risk	12	Above Average	75%	9.0
	Competitive Procurement Risk	9	Above Average	75%	6.8
	Schedule Risk	9	Excellent	100%	9.0
	Implementation Risk	9	Excellent	100%	9.0
	Sub-Total	70			64.8
Total		850			754.8

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The following table illustrates the cost-scoring methodology for each alternative.

Table 42 – Cost Criteria and Calculation

Alternative	Estimated Cost	Calculation	Maximum Points	Cost Score
CWS/CMS Upgrade	$1,493,027,671	0.600	150	90.0
Restart CWS/Web Serial	$1,211,066,935	0.740	150	111.0
New System Custom	$1,094,260,780	0.819	150	122.8
New System Buy/Build	$ 896,039,267	1.000	150	150.0

As a result of both the non-cost and cost evaluation of the technical alternatives being considered in the CWS Automation Study, the New System Buy/Build alternative was confirmed as the best overall solution. The following table summarizes the result of this evaluation:

Table 43 – Evaluation Summary

Alternative	Non-Cost Points	Cost Points	Total Score
CWS/CMS Upgrade	386.1	90.0	476.1
CWS/Web Serial	651.3	111.0	762.3
New System Custom	753.8	122.8	876.6
New System Buy/Build	754.8	150.0	904.8

Scorecards provide visual representation of how well each alternative met the six major areas: CWS Business Needs, Technical Viability, SACWIS, Time, Cost and Risks, plus an overall score.

The following table shows the different rating levels of the evaluation framework in visual form, based on their scoring percentage. The scorecard below is an example of how a particular alternative might be scored, using the visual to display each rating.

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Table 44 – Scorecard Ratings Visual Representation and Scorecard Example

Rating	Percent of Points Achieved	Visual
Excellent	81 - 100%	●
Above Average	61 - 80%	◕
Acceptable	41 - 60%	◑
Marginally Acceptable	21 - 40%	◔
Unacceptable	0 – 20 %	○

Visual Representation Scorecard Example Scorecard	
Business	◔
Technical	◔
SACWIS	◔
Time	◔
Cost	◑
Risk	◔
34% **overall score**	

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APPENDIX C: LIFECYCLE METHODOLOGIES

This section describes the benefits and challenges of different approaches for managing the solution lifecycle for each alternative.

1. Upgrade the Existing CWS/CMS - Lifecycle Methodology

The following table provides the benefits and challenges associated with the upgrade of the existing CWS/CMS on a serial-development lifecycle basis. This methodology will apply to the initial phase of re-hosting the CWS/CMS architecture. Subsequently, upgrade of functionally will be performed using the incremental-development lifecycle methodology.

Table 45 – Benefits and Challenges of Upgrading CWS/CMS – Serial Approach

Benefits	Challenges
1. Greatest control	1. Very rigid process
	2. Plan driven
	3. Plan is often developed before individuals doing work have joined the team.
	4. Plan is difficult to change because of milestone/deliverable date expectations established early in the lifecycle.
	5. Management/governance structure often restricts collaboration.
2. Product is delivered as a single complete solution.	6. Business value is delivered all at once, at the very end of the lifecycle.
	7. The late, single-solution delivery results in high risk and corrective cost if the business value does not align with the business expectations.
3. It is strictly defined and bounded lifecycle phases.	8. Long time span between lifecycle initiation and delivery of functional product.
	9. User participation (input/feedback) is often limited after initial requirements and analysis phases.
	10. Testing and defect correction occurs late in the lifecycle during the testing phase, which leads to delivery delays/rework.
4. Cost, schedule, resource, and completion date targets are defined early in the lifecycle before work initiates.	11. Hard to estimate cost, schedule and resource requirements prior to work initiation; project overruns are common.
	12. Rework resulting from change management process impacts multiple lifecycle phases and results in cost

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Benefits	Challenges
	increases and schedule delays.
	13. Cost, schedule and resource estimation executed before team members doing the work join the team results in schedule/ deliverable delays.
5. Product is completely documented (requirements, analysis, and design) before development begins.	14. Relies heavily on written communications (via documentation).
	15. Increased cost and time to implement discoveries/changes across functional elements being developed concurrently
	16. Because phases are often executed by a functional specialty, cross-phase impacts may not be comprehended or mitigated, causing increased change requests.
6. It is tolerant of changes in staffing (each phase is isolated to a functional specialty, so replacement is simplified).	17. Specialized staff members may have long periods with no work for their specialty.

Functionally, the serial lifecycle approach is best suited for projects where:

- Requirements are well known and stable.
- Low risk exists in the areas of user interface and system performance.
- High risk exists in budget/schedule predictability and control.

The risk in budget/schedule predictability and control is thought to be mitigated because serial development completes project-wide work products for each phase (requirements, analysis, design, test, and implementation) before moving on to the next phase. Because the project-wide work products are tightly bound to a definable phase, it is assumed this will mitigate risk in relation to budget /schedule predictability and control. However, business value (feature, function and alignment with need) is delivered all at once, and only at the very end of the project. This late delivery results in high risk and high corrective-action cost when the business value does not align with the business expectations.

Requirements for the system are determined at the beginning of the development effort and can only be changed thereafter through application of a very structured change management process. This means that the cost impact, especially to schedule and resources, of changing the requirements will incrementally increase with each subsequent phase in the serial chain. This is a common reality in product development projects. Because the project-wide work products are tightly coupled to each serial phase, each work product is based on only what is known during that phase. Discoveries arising in later phases generate changes in the base lined work products in

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upstream phases. A change to a requirement must occur in the requirements phase. Each requirement-phase change will ripple through all subsequent work products in every subsequent serial phase, until the phase where the requirement change request was discovered and initiated is reached. This rework is expensive in both schedule and resource utilization.

In this lifecycle methodology, communication is accomplished through documentation and it is assumed that the documentation is complete and correct at the end of the phase where it is created. Since the work in the next phase is based on documentation that has been reviewed and accepted in previous phase(s), the need for ongoing user interaction grows less critical with each subsequent phase. This means that face-to-face user feedback occurs primarily during requirements, analysis, and testing cycles. Design, code, and integration phases are based on the requirements and analysis documentation. Because the requirements and analysis documentation must identify the needs for today, tomorrow, next week, next month, and onward into the operational life of the system, the level of specification during the initial phases is very precise. This is problematic because the timeline from initiation to deployment to operations is typically multiple years, and many business conditions will change during this extended duration. From a project management perspective, phases (including the tasks for each phase) need to be identified and estimated months or even years before they will be executed.

The following table provides the benefits and challenges associated with the CWS/CMS Upgrade alternative in its upgrade to new functionality, involving an incremental lifecycle development methodology as its second phase of the upgrade:

Table 46 – Benefits and Challenges of Upgrading CWS/CMS – Incremental Approach

Benefits	Challenges
1. Results in a working service(s) (functionality) after each increment.	
2. Schedule is easier to maintain because increments are time-boxed with set start and complete dates (the time-box does not have to be the same for every increment).	1. Functional scope and/or complexity may be greater than can be completed within the time-box.
	2. Unfinished scope from the exceeded time-box(s) may not be developed because of prioritization and/or schedule adherence.
3. Increments are aligned to prioritized business value/need to maximize development and delivery schedule.	3. Business value priority may not align with dependencies on infrastructure, data and/or other services that require lower priority increments to be completed first.
	4. In-cycle business-value priority changes may not align with dependencies on infrastructure, data, and/or other services that require lower-priority increments to be completed first.

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Benefits	Challenges
4. Smaller scope within each increment results in more flexible, less costly changes to scope and/or requirements.	5. Only enough requirements are defined to plan and initiate an increment because requirements refinement is expected to be continuous throughout the increment.
	6. Requirements changes may be higher than anticipated as prototypes identify incomplete, misunderstood, or incorrectly communicated need/expectations.
	7. Problems may arise in the system architecture because not all infrastructure requirements are known initially for all increments in the lifecycle.
5. Because each increment encapsulates a single element of functionality, it is easier to determine the true status of product development as increments complete.	
6. It is easier to test and execute defect correction because of the smaller functional scope in each increment.	8. Defects identified during an increment's integration testing may impact team resources and schedule because the service(s) to which integration is being executed may have completed all its increment activities.
	9. The complexity/need for regression testing increases with each increment. This can impact schedules and resources if test automation is not utilized.
7. It is easier to manage product risk because highest-risk functionality can be developed in isolation to increments that have the lowest impact on the total product.	
8. Progress is measured through completed functionality (delivery of business value).	
9. It is easier to stop development of an individual service (or the entire product) because investment is made in small increments and the business value for the increment and/or all increments to date is	10. The termination of development for an individual service may impact scope, schedule, and resources for later planned increments.

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Benefits	Challenges
measurable.	
10. The duration to complete all increments requires less time than in serial lifecycle phases because of the smaller functional scope and associated efficiencies realized with each increment.	
11. Staff resources required to complete all increments are less than that required to complete all serial lifecycle phases because of: 12. the smaller functional scope 13. the ability to reuse resources (analysts, designers, developers) across numerous increments instead of concentration into a single phase 14. the increased efficiency of task performance gained through repetitive execution	11. Because the prototype, analysis, and design iterations require constant involvement and communication across business and technical staff, staff members assigned to an increment must be available and fully allocated for the entire increment.
15. Flexible deployment options allow better alignment with business needs and operational feasibility.	

With this lifecycle approach used for implementing new functionality, the system is defined, designed, and coded through a series of small, manageable increments. Within each increment, the prototype, analysis, design, and code activities can:

- Be performed serially.
- Be performed collaboratively.
- Be performed iteratively.
- Result when the “complete?” decision is “no.”
- Loop into another pass through the prototype, analysis, design, and code activities.
- Require sufficient time within the determined time-box to complete a further iteration.

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Deployment can be initiated at the end of an increment, delayed to any later increment, or deployed as a total system at the end of all increments.

The incremental product development model is applicable to projects where:

- Software requirements are well defined, but actual realization can be delayed to align with business value based priority, where:
    - Core product functionality, including core infrastructure, is delivered first.
    - Lower priority functionality is delivered later.
    - System architecture evolves through the increments and attains its final state during the final iteration.

Mechanically, this approach constructs a framework (partial) implementation of a total system during the initial increment. Each subsequent increment adds functionality or performance to the system baseline, based on business -value priority or architectural need. This model assumes that requirements are not fully understood or specified before an increment is initiated, but requirements are at a level that the required number of increments can be estimated and the requirements can be allocated (based on priority for implementation) across the planned increments.

Each increment initiates development of a prototype that aligns with its allocated requirements. The prototype starts with the functional elements of the requirements that are well understood and involves potential users to evaluate the prototype and provide feedback during analysis of requirements. This prototype/analysis activity is executed iteratively, often with collaborative capture of the evolving design, until the time allocated for these activities is exhausted or agreement is reached on the refined product. Discovered requirements defects are managed through the change management process and incorporated into the current increment, if the schedule allows, or allocated to later increments based on their priority. After the design is stable, the lifecycle moves into coding, integration testing, and acceptance testing.

Integration testing is normally not a source of major issues because the estimation of the number of increments and the allocation of requirements across the increments should provide an understanding of intra-increment dependencies. Best practices suggest that an early prototype should address the product architecture and provide basic functional connectivity (integration) that will be refined as later increments are completed.

Because the prototype, analysis, and design iterations identify and repair most defects before final coding occurs, the test phase should yield a very small number of defects. As discussed above, deployment can be:

- As a single, complete system.
- After each increment completes.
- To a sandbox environment for user training, evaluation and/or practice use.

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2. Restart the CWS/Web Project - Lifecycle Methodology

The following table provides the benefits and challenges associated with restarting CWS/Web:

Table 47 – Benefits and Challenges of Restarting CWS/Web

Benefits	Challenges
1. Greatest control	1. Very rigid process
	2. Plan driven
	3. Plan is often developed before individuals doing work have joined the team.
	4. Plan is difficult to change because of milestone/deliverable date expectations established early in the lifecycle.
	5. Management/governance structure often restricts collaboration.
2. Product is delivered as a single complete solution.	6. Business value is delivered all at once, at the very end of the lifecycle.
	7. The late, single-solution delivery results in high risk and corrective cost if the business value does not align with business expectations.
3. It is strictly defined and bounded lifecycle phases.	8. Long time span between lifecycle initiation and delivery of functional product
	9. User participation (input/feedback) is often limited after initial requirements and analysis phases.
	10. Testing and defect correction occurs late in the lifecycle during the testing phase, which leads to delivery delays / rework.
4. Cost, schedule, resource, and completion date targets are defined early in the lifecycle before work initiates.	11. Hard to estimate cost, schedule and resource requirements prior to work initiation; project overruns are common.
	12. Rework resulting from Change Management Process impacts multiple lifecycle phases results in cost increases and schedule delays.
	13. Cost, schedule and resource estimation executed before team members doing the work join the team results in schedule/deliverable delays.
5. System is completely	14. Relies heavily on written

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Benefits	Challenges
documented (requirements, analysis, and design) before development begins.	communications (via documentation).
	15. Increased cost and time to implement discoveries/changes across functional elements being developed concurrently
	16. Because phases are often executed by a functional specialty, cross-phase impacts may not be comprehended or mitigated, causing increased change requests.
6. It is tolerant of changes in staffing (each phase is isolated to a functional specialty, so replacement is simplified).	17. Specialized staff members may have long periods with no work for their specialty.

Functionally, the CWS/Web Restart alternative is best suited where:

- Requirements are well-known and stable.
- Low risk exists in the areas of user interface and system performance.
- High risk exists in relation to the budget and schedule predictability and control.

The risk in budget and schedule predictability and control is thought to be mitigated because serial-development completes the project-wide work products for each phase (requirements, analysis, design, test, and implementation) before moving on to the next phase. Because the project-wide work products are tightly bound to a definable phase, it is assumed this will mitigate risk in budget and schedule predictability and control. However, business value (feature, function and alignment with need) is delivered all at once, and only at the very end of the project. This late delivery results in high risk and high corrective action cost when the business value does not align with the business expectations.

Requirements for the system are determined at the beginning of the development effort and can only be changed thereafter through application of a very structured change management process. This means that the cost impact, especially to schedule and resources, of changing the requirements will incrementally increase with each subsequent phase in the serial chain. This is a common reality in product development projects. Because the project-wide work products are tightly coupled to each serial phase, each work product is based on only what is known during that phase. Discoveries arising in later phases generate changes in the baselined work products in upstream phases. A change to a requirement must occur in the requirements-phase work products. Each requirement phase change will ripple through all subsequent work products in every subsequent serial phase, until the phase where the requirement change request was discovered and initiated is reached. This rework is expensive in both schedule and resource utilization.

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In this CWS/Web lifecycle methodology, communication is accomplished through documentation and it is assumed that the documentation is complete and correct at the end of the phase where it is created. Since the work in the next phase is based on documentation that has been reviewed and accepted in previous phase(s), the need for ongoing user interaction grows less critical with each subsequent phase. This means that face-to-face user feedback occurs primarily during requirements, analysis, and testing cycles. Design, code, and integration phases are based on requirements and analysis documentation. Because the requirements and analysis documentation must identify the needs for today, tomorrow, next week, next month, and onward into the operational life of the product, the level of specification during the initial phases is very precise. This is problematic because the timeline from initiation to deployment to operations is typically multiple years, and many business conditions will change during this extended duration.

From a project management perspective, phases (including the tasks for each phase) need to be identified and estimated months or even years before they will be executed. Because the CWS/Web project will have a tendency to cover long durations and deliver all-encompassing solutions, there is also a tendency for critical milestone dates to be considered firm and non-negotiable, a practice that ultimately results in either missed targets and schedule slippage or excessive compression of task work to meet the set-in-stone milestone dates.

3. Build a New Custom System – Lifecycle Methodology

The following table provides a summary of benefits and challenges of the custom lifecycle model. The above model shows two increments for illustrative purposes only. In actual practice, the number of increments will be as many as is required to complete the objectives where the lifecycle is used.

Table 48 – Benefits and Challenges of Building a New Custom System

Benefits	Challenges
1. Results in working service(s) (functionality) after each increment.	
2. Schedule is easier to maintain because increments are time-boxed with set start and complete dates (time-box does not have to be the same for every increment).	1. Functional scope and/or complexity may be greater than can be completed within the time-box.
	2. Unfinished scope from the exceeded time-box(s) may not be developed because of prioritization and/or schedule adherence.
3. Increments are aligned to prioritized business value/need to maximize development and delivery schedule.	3. Business value priority may not align with dependencies on infrastructure, data, and/or other services that require lower priority increments to be completed first.

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Benefits	Challenges
	4. In-cycle business-value priority changes may not align with dependencies on infrastructure, data and/or other services that require lower-priority increments to be completed first.
4. Smaller scope within each increment results in more flexible, less costly changes to scope and/or requirements.	5. Only enough requirements are defined to plan and initiate an increment because requirements refinement is expected to be continuous throughout the increment.
	6. Requirements changes may be higher than anticipated as prototypes identify incomplete, misunderstood, or incorrectly communicated need/expectations.
	7. Problems may arise in the system architecture because not all infrastructure requirements are known initially for all increments in the lifecycle.
5. Because each increment encapsulates a single functionality, it is easier to determine the true status of the product development as increments complete.	8. Improper estimation of the number and duration of increments may result in reprioritization and sequencing that causes schedule delays.
6. It is easier to test and execute defect correction because of the smaller functional scope in each increment.	9. Defects identified during an increment's integration testing may impact team resources and schedule because the service(s) to which integration is being executed may have completed all its increment activities.
	10. The complexity/need for regression testing increases with each increment. This can impact schedule and resources if test automation is not utilized.
7. It is easier to manage product risk because highest risk functionality can be developed in (isolated to) an increment(s) that has the lowest impact on the total product.	
8. Progress is measured through completed functionality (delivery of business value).	
9. It is easier to stop development of an individual service or entire system because investment is	11. The termination of development for an individual service may impact scope, schedule, and resources for later planned

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Benefits	Challenges
made in small increments and the business value for the increment and/or all increments to date is measurable.	increments.
16. The duration to complete all increments requires less time than all serial lifecycle phases because of the smaller functional scope and associated efficiencies realized with each increment.	
17. Staff resources required to complete all increments will be less than that required to complete all serial lifecycle phases because of: 18. smaller functional scope 19. ability to reuse resources (analysts, designers, developers) across numerous increments instead of concentration into a single phase 20. increased efficiency of task performance gained through repetitive execution	12. Because the prototype, analysis, and design iterations require constant involvement and communication across business and technical staff, staff members assigned to an increment must be available and fully allocated for the entire increment.
21. Flexible deployment options allow better alignment with business needs and operational feasibility.	

With the custom development lifecycle, the product is defined, designed, and coded through a series of small, manageable increments. Within each increment, the prototype, analysis, design, and code activities can:

- Be performed serially.
- Be performed collaboratively.
- Be performed iteratively.
- Result when the “complete?” decision is “no.”
- Loop into another pass through the prototype, analysis, design, and code activities.
- Require sufficient time within the determined “time-box” to complete another iteration.

Deployment can be initiated at the end of an increment, delayed to any later increment, or deployed as a total system at the end of all increments.

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Mechanically, this approach constructs a framework (partial) implementation of a total system during the initial increment. Each subsequent increment adds functionality or performance to the system baseline, based on business-value priority or architectural need. This methodology assumes that requirements are not fully understood or specified before an increment is initiated, but requirements are at a level that the required number of increments can be estimated and the requirements can be allocated (based on priority for implementation) across the planned increments.

Each increment initiates development of a prototype that aligns with its allocated requirements. The prototype starts with the functional elements of the requirements that are well understood and involves potential users to evaluate the prototype and provide feedback (the analysis activity). This prototype/analysis activity is executed iteratively, often with collaborative capture of the evolving design, until the time allocated for these activities is exhausted or agreement is reached on the refined product. Discovered requirements defects are managed through the change management process and are incorporated into the current increment (if the schedule allows), or are allocated to later increments based on their priority. After the design is stable, the lifecycle moves into coding, integration testing, and acceptance testing.

Integration testing is normally not a source of major issues because the estimation of the number of increments and the allocation of requirements across the increments should provide an understanding of the intra-increment dependencies. Best practice suggests that an early prototype should address the product architecture and should provide basic functional connectivity (integration) that will need to be refined as later increments are completed.

Because the prototype, analysis, and design iterations will identify and repair most defects before the final coding occurs, the test phase will yield a very small number of defects.

As discussed above, deployment can be:

- As a single, complete system.
- After each increment completes.
- To a sandbox environment for user training, evaluation and/or practice use.

In summary, with the custom development methodology it is easier to reprioritize increment content and sequence as objectives change, and easier to provide frequent demonstration of progress to stakeholders as functional service(s) evolve within the increment. Smaller-scope increments provide flexibility and manage cost when changes to scope and/or requirements are needed. Also, as testing occurs informally throughout the increment's product development activities (prototype, analysis, design, and code), and formally as a final acceptance activity before deployment, fewer late-cycle defects arise.

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4. Buy/Build a New System – Lifecycle Methodology

The benefits and challenges of using this development method are summarized in the following table.

Table 49 – Benefits and Challenges of Using a Buy/Build Approach

Benefits	Challenges
1. Establishes a fully functional system after initial deployment.	1. The purchased product may not deliver all required business functionality.
	2. Requires development of a service(s) to fill a functional gap(s) in the business need(s)/ objective(s), law, and/or policy.
	3. Requires extreme discipline on the part of customers and vendor to not make any modifications to the purchased product.
2. Upgrades to new versions of the purchased product are not an issue because service capabilities are isolated and unchanged.	4. Some modifications to a service(s) may be required to align with changes in the service capabilities.
3. A capability that is not included in the service can be developed as an ancillary service(s) and provided as an custom-built service to the service capabilities.	
4. Development and delivery of a service(s) does not impact the purchased product because the service(s) is/are isolated from the purchased product.	5. The process for request, specification, approval, and delivery of a service(s) can result in prolonged delivery lifecycles.
	6. A service may be for a specific user population (or county) instead of all system users, which could result in a cost-sharing model for its development.
5. Development and delivery of functionality as a service(s) results in maximum flexibility when a changing law, policy, or process requires a modification to the system.	
6. Data exchange interfaces to systems at other agencies and/or partners can be developed using “adapter” technology, which normally facilitates minimum modifications to the agency/partner systems.	

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Benefits	Challenges
7. A service can be developed at any point in the lifecycle (i.e., in parallel with the implementation of the purchased product), so the timing of delivery of business value can be planned and executed to meet business needs/objectives.	
8. Because each service encapsulates a single functionality, it is easier to determine the status of business functionality gap closure.	
9. Schedule is easier to maintain because delivery of purchased product and development of services are separated.	
10. Delivery of the purchased product and service(s) is aligned to prioritized business value/need.	
11. It is easier to test and execute defect correction within a service because the functional scope is isolated to the service	

Like all lifecycles, this development lifecycle begins with the business goals, needs, and objectives (identified in the model as requirements). Through gap analysis, these business requirements are analyzed against the capabilities of the purchased product.

All identified gaps are also mapped against existing laws and policies to determine if there is a need or possibility to pursue changes in these laws/policies to remove the gap(s). At the conclusion of this analysis, there are three logical next steps:

- No changes are possible and the gap must be filled; therefore, develop a service to fill the gap.
- Changes are made to mitigate some or all of the gaps; therefore, execute BPR to determine impacts and changes to existing practice.
- Identify the inability to change law and/or policy, resulting in the lack of building an associated custom service and/or no need to execute BPR as an issue and manage the issue to closure.

When a gap is identified that is not directly tied to a law or policy, the next step in the lifecycle will be to move to BPR. BPR analysis can determine if the current business process can be executed without support from the purchased product, or if a change can be made in the current business process to remove the gap. When doing BPR, it is important to remember that any tool may be an enabler of business processes. The business processes are what you must control.

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All BPR outputs must be verified for organizational adoption. There are three logical outcomes from the combination of BPR and the verification for organizational adoption:

- BPR and organizational adoption is not possible and the gap must be filled; therefore, develop a service to fill the gap.
- BPR and organizational adoption are possible; therefore, move to implementation because there are no impacts to the purchased product.
- Identify the inability to achieve BPR and organizational adoption; therefore, the gap must be identified as an issue and managed to closure.

The essential condition of this alternative is that no modifications be made to the purchased product, in order to enable vendor upgrades to these elements. All issues and gaps must be resolved through either development of a custom-built service (extension to the product) or via BPR.

In parallel with the implementation of the purchased product, organizational change management needs to be executed to:

- Communicate the capabilities that will be delivered in the purchased product.
- Communicate capabilities that do not currently exist that will be available through the development of custom services.
- Communicate how the capabilities of the purchased product will be used to support the business practice.
- Communicate when services will be available to fill gaps between functionality desired in the system and available in the purchased product.
- Communicate changes (temporary or permanent) that will need to be made in how the system is used to execute the practice.
- Communicate any approved changes to the practice.

In summary, this methodology is the most flexible and allows a majority of business needs to be delivered with a purchased product, greatly shortening delivery of business value. Delivery of a developed service can be prioritized and sequenced to best align with business goals, needs and objectives. Because the functionality of the purchased product will not contain any customization, vendor-initiated upgrades to provide new functionality and/or address defect correction can be implemented with minimal impact to the operation of the system.

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APPENDIX D: CURRENT CWS/CMS APPLICATION ARCHITECTURE OVERVIEW

The CWS/CMS application is a multi-tiered client/server application comprised of several components. The major tiers and components include:

- Workstation user interface and business logic
- Application (county) server tiers – mainly communication logic
- Backend host and database – system of records

As well as SAS analytical tools, CWS/CMS also includes a separate environment for reporting, CAD.

1. Workstation Overview

The CWS/CMS application currently runs on workstations using the Windows 2000 and XP operating systems. CWS/CMS workstation client software architecture consists of several application layers. These layers include:

- **Presentation Services** – The presentation services component is the GUI provided to the user. The presentation service is provided via a Windows workstation.
- **Business Rule Services** – These services provide the application business logic unique to each functional area. At the workstation, both early verification (using the GUI business rules) and late verification use application rules to provide accurate information.
- **Security Services** – All traffic between CWS/CMS workstations and host applications are altered from clear text prior to transmission over the network and to the host.
- **Transaction Services** – Data traveling between the workstation and the host is organized into packets or transactions. The transaction services component creates these data transactions and transports the information to and from the host. The infrastructure supporting this is based on IBM's n-tier Customer Information Control System architecture. CICS components in the user workstation communicate to the CICS gateway components residing on the county server that in turn communicates to the backend CICS component on the mainframe.

The workstation client interacts with the IBM mainframe server host at the state data center. The host is the main repository for data, code tables, and document templates and stores all data related to a case.

2. Application/County Server Overview

The application server (or county server) functions as an intermediary between a group of workstations (associated with a county or site) and the host. The design and use of

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an application server was very typical in early client/server days for very large enterprise applications. Given the cost of the network, the application server was used to minimize traffic and the number of connections between the host and workstations. The application server is also used as a staging area for software distribution to reduce bandwidth congestion. Rather than distributing new code releases to 17,000 workstations over the WAN, software is first distributed to the application servers over the WAN that in turn are responsible for distributing software to local workstations over LANs.

Based upon user population, each county uses one or more CWS/CMS application servers. The application servers are hosted locally in county server rooms. These servers are designed to perform several functions including:

- **Transaction Support** – Offload various communication functions from the workstation to the server.
- **Reduce Network Transactions** – Provide a staging point for software and code table distribution to reduce bandwidth over the network.
- **Security and Compression** – Provide additional security functionality including compression and encryption of the traffic over the WAN network.
- **CWS Administrator** – Provide the local administrator with capabilities to locally manage resources and staff.

3. Backend Host Overview

The core component of CWS/CMS is the IBM mainframe computer or host. The primary role of the host is to provide database and transaction services. CWS/CMS is built on a IBM DB2 database. All CWS/CMS data is stored in a series of database tables and accessed through CICS transactions generated from the workstation's CWS/CMS application. The transactions are processed by the CICS transaction monitor and programmed using the COBOL language.

IBM designed the transaction architecture under the CICS environment to support the workstation client and the business processes of case workers at the time of design. The transaction design is comprised of three major layers:

- Compression/decompression of input from the workstation
- A framework for dynamically linking a sequence of procedural routines depending on the transaction identified
- Data access packets based on Structured Query Language (SQL) statements that are invoked by those transactions

4. Reporting Overview

Reporting requirements within CWS/CMS are satisfied by several methods. Specific user community needs are addressed through different sets of tools and data access paths and repositories.

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There are four basic categories of reporting in CWS/CMS:

- Standard program management reports
- Ad-hoc reporting run against the CAD
- Quality assurance and regulatory compliance reporting services from Safe Measures®
- Ad-hoc reporting run against the production database via SAS software

It must also be noted that several counties employee their own data warehouse, data marts, reporting, and/or business intelligence software for satisfying reporting needs within their county.

A key component of the CWS/CMS architecture is the CAD. CAD was developed to help counties and California child welfare service agencies fulfill their many constituents' reporting requirements. The CAD solution contains one statewide view and 58 county views of the data contained within CWS/CMS. These views allow a county to only view its own data. In contrast to the production database, the CAD "de-normalizes" some data tables to better accommodate these additional views and to increase query performance, as CAD is optimized for query vs. update.

The majority of CAD users (200+) makes use of the CWS/CMS data warehouse and associated data marts for ad-hoc reporting and analysis. These CAD users access the data warehouse using the Business Objects report tool suite, located on selected CWS/CMS workstations. An encrypted network tunnel is established between their workstation and the CAD server to provide a secure transmission of data to and from the data warehouse. Access and usage is limited to the number of purchased licenses.

5. County Infrastructure Overview

Each CWS/CMS client county has its own unique characteristics based on local network conditions and topologies. County infrastructures are classified as either dedicated or coexistent depending on the level of support to county LANs.

Dedicated counties entered into an agreement under which IBM Global Services is designated to be the agency responsible for the installation and maintenance of CWS/CMS applications and related operating hardware and software.

Coexistent counties agreed to use the CWS/CMS suite of applications, but retain responsibility for the maintenance of related operating hardware used by the CWS/CMS application Network Infrastructure.

6. Information Security Architecture Overview

CWS/CMS contains information that is highly confidential and sensitive in nature. CWS/CMS security architecture is based on a layered model incorporating security controls in each layer. The security in each layer includes:

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- Workstation/LAN Security Components
  - Authentication by unique user id and passwords – standard Active Directory logon scripts and network access security
  - Physical security of workstations
- Server Security Components
  - Case data is encrypted/compressed when stored on a local application server and during transmission to the backend host.
- Application/Host Security Components
  - Application security is based on IBM's Resource Access Control Facility (RACF) security systems. Each user is uniquely identified to the systems by dedicated representatives from the State, county, or office security administrator using unique user id and passwords.
  - Access to cases, reports, and data is based on a pre-assigned user authority profile that restricts access to individual programs, reports, and data on the host.
  - Access logic is part of the application logic.
- CAD Security
  - Network Data Stream – Cisco
  - RDBMS Security – Runtime client encryption and user authentication
  - Application Security – Assigned security levels
  - Data Access Security – Assigned by authorization level, views, and profiles
  - Users have read-only access and cannot change data in data warehouse.
- Network Security Components/Encryption
- Remote Access Security – Currently, remote access is supported via dial-up circuits or VPN. Security is enforced through user IDs and passwords.
- Logging and Tracking
  - Invalid user IDs and passwords, as well as login attempts, are tracked in a security log.
  - Logs are reviewed periodically by security administrators based on local policies.
  - Automatic revocation of user IDs and passwords after a pre-defined number of failed attempts.
- Data Backup and Recovery

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  - Data is backed-up daily on the host and the local application servers (local user files).
  - Tapes at the data center are moved off-site on a daily basis.
- Physical Security
  - Access to data center controlled by badges.
  - Servers are placed in locked rooms (policy).
  - Servers (in dedicated environments) have case key locks.
- Security Management - Each county has a dedicated security manager responsible for:
  - Managing user id and password (add, change, delete, reset, etc.).
  - Managing access control and authority levels.
  - Managing email security.
  - Managing physical security for servers, workstations, and security communications for the county.

7. Software Distribution Infrastructure Overview

CWS/CMS uses Tivoli Software Distribution software to deliver software to the CWS/CMS Windows application servers in the counties.

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APPENDIX E: LEGISLATIVE REFERENCES

This appendix details the state and federal legislation, regulations, or policies identified in this report.

Table 50 – Legislative References

State Legislative References		
Reference	Detail	Information link
Assembly Bill 12 Chapter 559, Statutes of 2010	California Fostering Connections to Success Act, implements federal foster care reform legislation to provide federally subsidized relative guardianships, and extend foster care jurisdiction to age 21.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_0001-0050/ab_12_bill_20100930_chaptered.html
Assembly Bill 106 **Chapter 32, sec 71** **Statues of 2011**	Requiring CDSS, by January 10, 2012, to report specific information regarding status of CWS/CMS.	http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_0101-0150/ab_106_bill_20110629_chaptered.html
Assembly Bill 129 Chapter 468, Statues 2004	Dual Jurisdiction of Wards and dependents.	http://www.leginfo.ca.gov/pub/03-04/bill/asm/ab_0101-0150/ab_129_bill_20040910_chaptered.html
Assembly Bill 212 Chapter 449, Statues of 2011	California Fostering Connections to Success Act, extends specified foster care benefits to youth up to 19, 20, and 21 years of age.	http://www.leginfo.ca.gov/pub/11-12/bill/asm/ab_0201-0250/ab_212_bill_20111004_chaptered.html
Assembly Bill 636, Chapter 678, Statutes of 2001 Welfare and Institutions Code, 10601.2	CWS Improvement and Accountability Act.	http://www.leginfo.ca.gov/pub/01-02/bill/asm/ab_0601-0650/ab_636_bill_20011010_chaptered.html http://www.dss.cahwnet.gov/pdf/ab636.pdf
Assembly Bill, 743 Chapter 560, Statutes of 2010	Sibling Placement and visitation.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_0701-0750/ab_743_bill_20100930_chaptered.html

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State Legislative References		
Reference	Detail	Information link
Assembly Bill 938 Chapter 261, Statute of 2010	Early search and notification of relatives.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_0901-0950/ab_938_bill_20091011_chaptered.html
Assembly Bill 1325, Chapter 287, Statutes of 2009	Requires the juvenile court and social workers to consider and recommend tribal customary adoption, as defined, as an additional permanent placement option, Without termination of parental rights, for a dependent child. The bill would provide that a tribal customary adoption order would have the same force and effect as an order of adoption.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_1301-1350/ab_1325_bill_20091011_chaptered.html
Assembly Bill 1331, Chapter 434, Statutes of 2007	Tracking of SSI application for disabled exiting foster youth.	http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_1301-1350/ab_1331_bill_20071011_chaptered.html
AB 1933 Chapter 563, Statutes of 2010	Ensures and facilitates the proper educational placement,enrollment in school, and checkout from school of foster children. Provides for assisting foster children when transferring from one school to another or from one school district to another in ensuring proper transfer of credits, records, and grades.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_1901-1950/ab_1933_bill_20100930_chaptered.html

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State Legislative References		
Reference	Detail	Information link
AB 2070 Chapter 442, Statutes of 2008	Reunification timeframes for Incarcerated Parents.	http://www.leginfo.ca.gov/pub/07-08/bill/asm/ab_2051-2100/ab_2070_bill_20080928_chaptered.html
Assembly Bill 2322 Chapter 551, Statutes of 2010	Data Sharing of Families and Children at risk for child abuse.	http://www.leginfo.ca.gov/pub/09-10/bill/asm/ab_2301-2350/ab_2322_bill_20100929_chaptered.html
Assembly Bill 2985, Chapter 387, Statutes of 2006	Requires a county welfare department to request a consumer disclosure for youth in a foster care, when the youth reaches his or her 16th birthday, in order to ascertain whether the youth has been the victim of identity theft. Provides that, if the consumer disclosure reveals any negative items or evidence of identity theft, the department is to refer the youth to an approved Organization that provides services to identity theft victims. Requires the Department to maintain a list of approved organizations.	http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_2951-3000/ab_2985_bill_20060922_chaptered.html
California Health Information Exchange	Related strategic plan whose goal is to achieve statewide electronic health data exchange, uniform interoperability standards and adoption of health information technologies.	http://ehealth.ca.gov/Portals/0/uploads/CA_HIE_Strategic%20Plan.pdf
CWS Realignment Governor's 2011/12 May Revision	Transfers primary program responsibility and associated funding for CWS to counties. Counties would be given flexibility to operate the program and best serve vulnerable children. CDSS would continue as authorized by statute to promulgate regulations, policies, and procedures necessary to implement the	http://www.chhs.ca.gov/Documents/Realignment.pdf http://www.dof.ca.gov/budget/historical/2011-12/governors/documents/May_Revision_2011-

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State Legislative References		
Reference	Detail	Information link
	State's child welfare system and to ensure safety, permanence, and well-being for children and families. The CDSS continues its responsibility for the supervision and coordination of programs in California funded under federal Title IV-B subparts 1 and 2 of the Social Security Act, Title IV-E, Child Abuse Prevention and Treatment Act (CAPTA), and the Chafee Foster Care Independence Program and Education Training Vouchers programs for older and/or former foster care youth.	12_Summary.pdf
Senate Bill 370, Chapter 1294, Statutes of 1989 California Welfare and Institutions Code 16501.5	Mandates a single statewide child welfare automation system.	http://www.childsworld.ca.gov/pg1329.htm
Senate Bill 500 Chapter 630, Statues of 2005	Require a shared responsibility plan to be developed between the teen parent, caregiver, and other county or state representatives, as appropriate, for the care of the child of a teen parent when the child of a teen parent is not under the jurisdiction of the dependency court but is in the full or partial physical custody of the teen parent who is living in an out-of-home placement in a whole family foster home.	http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_0451-0500/sb_500_bill_20051007_chaptered.html
Senate Bill 678 Chapter 838, Statutes of 2008	Expand various provisions of state law to, among other things, apply to certain children who do not come within the definition of an Indian child for purposes of the Indian Child Welfare Act, and would provide that a parent, Indian custodian, or tribe may intervene in child custody proceedings involving children with Indian ancestry, as specified.	http://www.leginfo.ca.gov/pub/05-06/bill/sen/sb_0651-0700/sb_678_bill_20060930_chaptered.html
Senate Bill 703, Chapter 583	ICPC. An interstate compact, or agreement, that has been enacted into	http://ccld.ca.gov/res/pdf/FC7900.pdf

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State Legislative References		
Reference	Detail	Information link
Statutes of 2007	law by all 50 states in the United States, and the District of Columbia, which expedite the movement of children from one state to another for the purposes of foster care and adoptions.	http://www.childsworld.ca.gov/PG1316.htm http://www.childwelfare.gov/systemwide/laws_policies/federal/index.cfm?event=federalLegislation.viewLegis&id=82 http://www.leginfo.ca.gov/pub/07-08/bill/sen/sb_0701-0750/sb_703_bill_20071013_chaptered.pdf
Senate Bill 933 Chapter 311 Statutes of 1998	Reexamination of the Role of Group Home Care: Legislation is part of efforts for congregate care reform efforts.	http://www.childsworld.ca.gov/res/PDF/StatusReport.pdf http://www.leginfo.ca.gov/pub/97-98/bill/sen/sb_0901-0950/sb_933_bill_19980819_chaptered.pdf
Senate Bill 1353 Chapter 557, Statutes of 2010	When determining placement, educational and school placement setting need to address availability and close proximity to the parent's home and promotes educational Stability.	http://www.leginfo.ca.gov/pub/09-10/bill/sen/sb_1351-1400/sb_1353_bill_20100930_chaptered.html
System Improvement Plan (SIP). Welfare and Institutions Code, 10601	Required under AB 636 implementation. Counties are to collaborate with other local partners to develop a county SIP. The purpose of the SIP is to establish program priorities, define specific action steps to achieve improvement and establish goals for improvement.	http://www.dss.cahwnet.gov/pdf/ab636.pdf

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Federal Legislative References		
Reference	Detail	Information Link
Adoption and Foster Care Analysis Reporting System (AFCARS**) (**CFR) Title 45 § 1355.57-	The AFCARS collects case level information on all children in foster care for whom state child welfare agencies have responsibility.	http://www.acf.hhs.gov/cwpm/programs/cb/laws_policies/laws/cwpm/policy.jsp?idFlag=1 http://www.acf.hhs.gov/programs/cb/stats_research/index.htm#cw
Annual Progress and Services Report (APSR)45 CFR §1357.16 -	Annual state updates on the progress made toward accomplishing the goals and objectives in the Child and Family Service Plan (CFSP).	http://www.acf.hhs.gov/programs/cb/programs_fund/index.htm#CFSP http://www.gpo.gov/fdsys/search/pagedetails.action;jsessionid=S7ZRTk1HCry5N33L78KSbTGHJz38mVRkLQJt0bVZ6D0RNQqqvMT0!1692713536!1829334544?st=citation%3A45+CFR+1357&granuleId=CFR-2010-title45-vol4-sec1357-16&packageId=CFR-2010-title45-vol4
Child Abuse Prevention and Treatment Act (CAPTA) (Public Law 93-247)	The Child Abuse Prevention and Treatment Act (CAPTA) is one of the key pieces of legislation that guides child protection. This is one of Congress' significant pieces of legislation that support the States' duty and power to act on behalf of children when parents are unable or unwilling to do so.	http://www.acf.hhs.gov/programs/cb/laws_policies/cblaws/capta03/capta_manual.pdf
Child and Family Services Plan (CFSP) 45 CFR § 1357.16	Five-year state strategic plan that sets forth the vision and the goals to be accomplished to strengthen the States' overall child welfare system.	http://www.acf.hhs.gov/programs/cb/programs_fund/index.htm#CFSP http://www.gpo.gov/fdsys/search/pagedetails.action;jsessionid=S7ZRTk1HCry5N33L78KSbTG

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Federal Legislative References		
Reference	Detail	Information Link
		HJz38mVRkLQJt0bVZ6D0RNQqqvMT0!1692713536!1829334544?st=citation%3A45+CFR+1357&granuleId=CFR-2010-title45-vol4-sec1357-16&packageId=CFR-2010-title45-vol4
Child and Family Services State Plan Reviews (CFSR), 45 CFR §1357.16	Reviews of state child and family service to insure federal funding conformity under the below identified areas; **Title IV-E Foster Care** **Title IV-B Subpart 1** Child Welfare Services **Title IV-B Subpart 2** Promoting Safe and Stable Families **Chafee Foster Care Independence Act** of 1999 **The Child Abuse Prevention and Treatment Act**, as amended by the Keeping Children and Families Safe Act of 2003	http://www.acf.hhs.gov/programs/cb/programs_fund/ http://www.gpo.gov/fdsys/search/pagedetails.action;jsessionid=S7ZRTk1HCry5N33L78KSbTGHJz38mVRkLQJt0bVZ6D0RNQqqvMT0!1692713536!1829334544?st=citation%3A45+CFR+1357&granuleId=CFR-2010-title45-vol4-sec1357-16&packageId=CFR-2010-title45-vol4
National Child Abuse and Neglect Data System (NCANDS)	The NCANDS national data collection and analysis system created in response to the requirements of the CAPTA for Child Welfare Outcomes Reports, which include Child Maltreatment Reports.	http://www.acf.hhs.gov/programs/cb/systems http://www.acf.hhs.gov/programs/cb/stats_research/index.htm#cw
National Youth in Transition Database (NYTD) 45 CFR Part	Data collection system to track the independent living services states provide to youth and develop outcome measures that may be used to assess states' performance in operating their independent living programs.	http://www.acf.hhs.gov/programs/cb/systems http://edocket.access.gpo.gov/2008/pdf/E8-3050.pdf

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Federal Legislative References		
Reference	Detail	Information Link
1356		
Program Improvement Plan (PIP), 45 CFR §1357.16	Foster Care Eligibility Program Improvement Plan. California's' opportunity to develop and implement corrective action plan associated to the CFSP/CFSR.	http://www.acf.hhs.gov/programs/cb/laws_policies/cblaws/fed_reg/fr012500.htm
Safe and Timely Interstate Placement of Foster Children Act of 2006 – (P.L). 109-239 ICPC	An interstate compact, or agreement, that has been enacted into law by all 50 states in the United States, and the District of Columbia, which expedite the placement of foster care children across state lines and removes barriers traditionally recognized as detrimental to timely interstate placements.	http://ccld.ca.gov/res/pdf/FC7900.pdf http://www.childsworld.ca.gov/PG1316.htm http://www.childwelfare.gov/systemwide/laws_policies/federal/index.cfm?event=federalLegislation.viewLegis&id=82
SACWIS Title XIII, Section 13713. Enhanced match for automated data systems, of the Omnibus Budget Reconciliation Act of 1993 Public Law 103-66	Provides states with the opportunity to obtain enhanced funding through the Title IV-E to plan, design, develop, and implement a SACWIS.	http://www.acf.hhs.gov/programs/cb/systems/sacwis/about.htm http://www.acf.hhs.gov/programs/cb/laws_policies/policy/at/at9501.htm

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APPENDIX F: ACRONYMS LIST

Table 51 – Acronyms List

Acronym	Definition
AAP	Adoption Assistance Program
ACF	Administration for Children and Families
AFCARS	Adoption Foster Care Analysis and Reporting System
APP	Alternative Procurement Process
APSR	Annual Progress and Services Review
BCP	Budget Change Proposal
BPR	Business Process Reengineering
CAD	County Access to Data
CalWORKS	California Work Opportunity and Responsibility to Kids
CAPTA	Child Abuse Prevention and Treatment Act
CAST	Child Welfare System Automation Study Team
CCSAS	California Child Support Automation System
CDE	California Department of Education
CDPH	California Department of Public Health
CDSS	California Department of Social Services
CFSP	Child and Family Services Plan
CFSR	Child and Family Services Review
CICS	Customer Information Control System
COBOL	Common Business Oriented Language
COTS	Commercial-off-the-Shelf
CRC	Children's Research Center
CSGNet	California State Government Network
CSSR	Center for Social Services Research, University of California at Berkeley
CWDA	County Welfare Directors Association
CWDAB	Child Welfare Data Analysis Bureau
CWS	Child Welfare Services

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Acronym	Definition
CWS/CMS	Child Welfare Services/Case Management System
CWS/Web	Child Welfare Services Web Project
DD&I	Design, Development & Implementation
DDD	Domain Driven Design
DGS	Department of General Services
DHCS	Department of Health Care Services
DMV	Department of Motor Vehicles
FFP	Federal Financial Participation
FSR	Feasibility Study Report
GUI	Graphical User Interface
IAPD	Implementation Advance Planning Document
IBM	International Business Machines Corporation
ICPC	Interstate Compact on the Placement of Children
IDM	Identity Management
IFB	Invitation for Bid
ICWA	Indian Child Welfare Act
IT	Information Technology
LAN	Local Area Network
LIS	Licensing Information System
M&O	Maintenance and Operations
MEDS	Medi-Cal Eligibility Determination System
NCANDS	National Child Abuse and Neglect Data System
NYTD	National Youth in Transition Database
OSC	CWS/CMS Oversight Committee
OSI	Office of Systems Integration
OTech	Office of Technology Services
PAPD	Planning Advanced Planning Document
PCC	Public Contract Code

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Acronym	Definition
PIAC	CWS/CMS Program Impact Advisory Committee
PIP	Program Improvement Plan
RACF	Resource Access Control Facility
RDBMS	Relational Database Management System
RFI	Request for Information
RFO	Request for Offer
RFP	Request For Proposal
SaaS	Software as a Service
SACWIS	Statewide Automated Child Welfare Information System(s)
SAS	Statistical Analysis Software
SAWS	Statewide Automated Welfare System
SBC	Service Based Computing
SI	Systems Integrator
SIP	Session Initiation Protocol
SQL	Structured Query Language
SOA	Service-Oriented Architecture
TAAA	Technical Architecture Alternatives Analysis
TAC	CWS/CMS Technical Advisory Committee
TASP	Technical Architecture Strategic Plan
TCO	Total Cost of Ownership
UCB	University of California at Berkeley
VPN	Virtual Private Network
WAN	Wide Area Network
WIC	Welfare and Institutions Code

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APPENDIX G: BIBLIOGRAPHY

This section shows the bibliography of material used in or referenced in the study:

1. ACF. "California AFCARS Assessment Review Report prepared by Children's Bureau, Administration on Children, Youth and Families and Office of Information Services Administration for Children and Families U.S. Department of Health and Human Services." November 2004.
2. CDSS. "CWS/Web Advance Planning Document # 1." August 2009.
3. CDSS. "External System Analysis – CDSS CMS Support." February 2011.
4. CDSS. "External System Analysis – CDSS CPFSB." March 2011.
5. CDSS. "Implementation Advance Planning Document # 2." May 2011.
6. CDSS. D. Oliveira. "External System Analysis CDSS CYPB." March 2011.
7. CWS/CMS "Technical Support Hardware/Software Purchase Plan."
8. CWS/CMS. "California's Go-Forward Plan." August 2004.
9. CWS/CMS. "CWS/CMS Strategic Plan." September 2006.
10. CWS/CMS. "Request for Proposal OSI-0530-208." December 2010.
11. CWS/CMS. "SCR's Referencing Legislative Needs." June 2011.
12. CWS/CMS. "Update Bidders' Library Artifacts 23 and 24 by J. Allen." January 2011.
13. CWS/CMS. COMSYS. "Automated Title IV-E Eligibility Determination Alternatives Analysis Study Deliverable 3.4." March 2009.
14. CWS/CMS. Eclipse Solutions, Inc. "CWS/CMS Technical Alternatives Analysis." March 2005.
15. OSI, "Legislative Hearing Script." April 2008.
16. OSI. "CWS-LAO Schedule Comparison." March 2008.
17. TASP – Technical Architecture Strategic Plan, dated April 8, 2003, created jointly by CDSS, OSC, and OSI.

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Child Welfare Services New System Project

Project Management Plan

January 2012

Health and Human Services Agency, Office of Systems Integration

NSPdocs – 6869v3

Revision History

REVISION HISTORY			
REVISION/WORKSITE #	DATE OF RELEASE	OWNER	SUMMARY OF CHANGES

Approvals

PROJECT MANAGER	DATE
PROGRAM MANAGER	DATE
	DATE
	DATE

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1 INTRODUCTION

1.1 Purpose

The purpose of this Project Management Plan (PMP) is to provide project management, project staff, and project stakeholders with an approved working guide that details how the Child Welfare Services New System (CWS-NS) Project activities and deliverables will be managed throughout the project lifecycle phases.

The PMP is the plan that facilitates integration management on the CWS-NS Project. As described in the Project Management Body of Knowledge (PMBOK) framework, integration management includes the processes required to ensure that the various elements of the project are properly coordinated. Integration management involves making tradeoffs among competing objectives and alternatives in order to meet or exceed stakeholder needs and expectations. Integration management is a key aspect of project management and a primary activity of the CWS-NS Project Manager. The CWS-NS Project Manager must have the information to understand the scope of work, the objectives, resources, responsibilities, milestones, status, risks, and issues of the project. This PMP establishes the framework for integrating and managing the various project management areas.

1.2 Scope

This PMP serves as the cornerstone for the management of the CWS-NS Project by defining the scope of the project. PMBOK defines a project management framework that establishes five process groups that include initiating, planning, executing, monitoring and controlling, and closing. This PMP defines how project planning, project execution, project monitoring and control, and closing phases will be managed. In addition, the management of unanticipated tasks, the project schedule, and tailoring to achieve phase close-out/lessons learned project activities are defined.

To comprehend scope, it is necessary to understand how the project management processes are executed on the CWS-NS Project. While the PMP defines the framework for process execution, ancillary project management plans, subordinate to the PMP, are required to completely define the approach, responsibilities, and sub-processes of the project management process groups identified in the PMBOK, 3rd Edition, as tailored to the CWS-NS Project.

The PMP, its subordinate project management plans and their relationship to the PMBOK project management processes are identified in Table 1.1 – CWS-NS Project Management Plans.

Table 1.1 – CWS-NS Project Management Plans

Plan Name	Project Management Discipline (PMBOK)	Project Focus
Project Management Plan	• Integration management • Scope management • Quality management	Documents the overall approach to managing the CWS-NS Project and discusses various project management processes to be used. Includes processes for integration management, quality management, and scope management. References the subordinate plans that provide more information on the other project management disciplines.
Governance Management Plan	• Integration Management • Scope management • Communications management	Documents the decision making model, to include decision authority, decision escalation and conflict resolution.
Contract Management Plan	Procurement management	Document the processes for managing the procurement and management of contracts for the various contractors engaged for the CWS-NS Project.
Information Technology Procurement Plan	Procurement management	Documents the processes for soliciting and acquiring the various contractors engaged for the CWS-NS Project.
Configuration Management Plan	Scope management	Documents the standards and processes to manage the repository of CWS-NS baselined artifacts (documents, product deliverables, historical information).

Plan Name	Project Management Discipline (PMBOK)	Project Focus
Change Management Plan	Scope management	Documents the formal process for managing change requests for CWS-NS Project baselined items. (May be incorporated into the Configuration Management Plan).
Requirements Management Plan	Scope management	Documents the CWS-NS Project requirement types and structure and provides specific guidelines and processes for changes to CWS-NS requirements.
Issue and Action Item Management Plan	Scope management	Documents the processes to ensure CWS-NS Project issues and action items are adequately tracked, assessed, documented, and resolved.
Cost Management Plan	Cost management	Documents the processes for CWS-NS Project budget planning, cost accounting, and cost management.
Communication Management Plan	Communications management	Documents the processes by which CWS-NS Project information is developed, maintained, and managed for project stakeholders both internal and external to the project.
Risk Management Plan	Risk management	Documents the risk management processes used to identify and mitigate CWS-NS Project risks that may impact the project or stakeholders.
Schedule Management Plan	Time management	Documents the processes for developing, maintaining, and controlling CWS-NS Project schedules.

Plan Name	Project Management Discipline (PMBOK)	Project Focus
Staff Management Plan	Human resource management	Documents the processes by which staff resources for the CWS-NS Project are identified, acquired, and managed.

NOTE: Project Management Plans and processes developed for the CWS-NS Project are based on and are compliant with the Project Management Body of Knowledge (PMBOK) published by the Project Management Institute (PMI) (http://www.pmi.org) and on OSI Best Practices as found on the OSI Website (http://www.bestpractices.cahwnet.gov). Tailoring of OSI Best Practices will be done as necessary to accommodate specific needs of the project.

This PMP is divided into seven sections as follows:

- Section 1 – Introduction describes the overall purpose and scope of the PMP as a document.
- Section 2 – Project Planning describes the project management processes used on the project and how they are integrated as the project management methodology to be used on the project. This section includes a description of the internal and external organizations impacted by the project. It also includes a discussion of project objectives, assumptions, and constraints.
- Section 3 – Project Execution describes the execution of the PMP and the project approaches and strategies to be used to perform project activities throughout the project lifecycle.
- Section 4 – Project Monitoring and Control describes the project processes to monitor and control scope, cost, and schedule changes and to ensure changes are beneficial, approved, properly executed, and communicated.
- Section 5 – Unanticipated Tasks describes the approach for handling unanticipated tasks that occur beyond the planned project scope, but must be executed.
- Section 6 – Project Schedule describes the overall project schedule for the project activities, tasks, and milestones.
- Section 7 – Phase Close-Out & Lessons Learned describes the use of phase close-out and lessons learned activities to control proper closure of a current lifecycle phase before proceeding to the next phase. This section includes a discussion of contract close out as well as administrative closure.

1.3 References

The following sources were referenced to build this plan:

- Institute of Electrical and Electronics Engineers (IEEE) Standard 1490-2003, Adoption of PMI Standard – A Guide to the Project Management Body of Knowledge (PMBOK), 24 May 2004
- Office of Systems Integration (OSI) Best Practices website (http://www.bestpractices.cahwnet.gov)

1.3.1 Project Centralized Document Repository

An electronic version of the PMP, as well as all project deliverables, is available to the project team and stakeholders on an ongoing basis through Interwoven DeskSite, the document management system used by the Office of Systems Integration (OSI). The DeskSite repository for the CWS-NS Project is NSPdocs. Refer to the Interwoven DeskSite repository for all project-specific documentation.

The plans listed in Table 1.1 – CWS-NS Project Management Plans comprise the project management plans for the CWS-NS Project and identify their DeskSite NSPdocs reference number.

1.4 Acronyms

Table 1.2 – Acronym List

Acronym	Definition
ACF	Administration for Children and Families
APD	Advance Planning Document
BPM	Business Process Management
CCB	Change Control Board
CDSS	California Department of Social Services
CFSD	Children and Family Services Division
CMC	Change Management Committee
COTS	Commercial Off-the-Shelf
CWS	Child Welfare Services
CWS/CMS	Child Welfare Services/Case Management System
CWS-NS	Child Welfare Services New System Project
DGS	Department of General Services
DOF	Department of Finance
FEAP	Federal Enterprise Architecture Program
FFP	Federal Financial Participation
FR	Future Release
FSR	Feasibility Study Report

Acronym	Definition
HHS	Health and Human Services
IEEE	Institute of Electrical & Electronics Engineers
IPOR	Independent Project Oversight Report
IR	Initial Release
ITIL	Information Technology Infrastructure Library
ITPP	Information Technology Procurement Plan
JIT	Just-In-Time
MTS	Management Tracking System
OCIO	Office of Chief Information Officer
OSI	Office of Systems Integration
OSO	Office of Systems Oversight
OTech	Office of Technology Services
PAPD	Planning Advance Planning Document
PCB	Project Control Board
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMO	Project Management Office
PMP	Project Management Plan
POC	Project Oversight Consultant
QMSS	Quality Management Support Services
RFO	Request for Offer
RFP	Request for Proposal
SACWIS	Statewide Automated Child Welfare Information System
SAF	Solution Architecture Framework
SAR	SACWIS Assessment Review
SARG	SACWIS Assessment Review Guide
SDP	Software Development Plan
SI	Systems Integrator
SIMM	Statewide Information Management Manual
SLA	Service Level Agreement
SOA	Service-Oriented Architecture
SPR	Special Project Report
V&V	Verification and Validation
WBS	Work Breakdown Structure

1.5 Document Maintenance

This document will be reviewed annually and updated as needed as the CWS-NS Project proceeds through each phase of the system development lifecycle. Lessons learned as a result of continuing staff management efforts will be captured at the end of each project phase and used to improve project and OSI standards.

This document contains a revision history log that precedes the Table of Contents. When changes occur, the version number will be updated to the next increment. The date, owner making the change, and change description will also be recorded in the revision history log of the document.

The PMP is considered a baselined document after the initial PMP has been approved by the Project Manager. Subsequent changes to the PMP, including periodic updates, require the use of the CWS-NS Configuration Management and Change Management Processes.

1.6 Project Management Plan (PMP) Precedence

The PMP is developed and controlled by the CWS-NS Project and is the highest-level project management document. The PMP is used to manage the entire system effort. Contractors to the CWS-NS Project are expected to use the CWS-NS Project PMP as the framework to manage their individual obligations. Contractors can submit tailoring requests to this PMP, if there are elements missing from this PMP that are necessary for successful execution of their project responsibilities. These tailoring requests will be managed under the CWS-NS Change Management process, and will be incorporated into this PMP after analysis and approval has been completed.

2 PROJECT PLANNING

The Project Planning section describes the CWS-NS Project objectives, project management processes, organizational structure, project assumptions, and constraints. It also includes a description of the internal and external organizations impacted by the project.

2.1 Project Purpose and Objectives

The purpose of the CWS-NS Project is expressed in the project vision statement:

> *To enhance the safety, well-being, and permanence of at-risk children by improving the ability of Child Welfare Services (CWS) staff to provide services in an effective and efficient manner.*

To guide the project and to ensure successful achievement of its purpose, the CDSS Project Sponsor and OSI Management defined the following CWS-NS Project objective in the CWS-NS Project Charter:

> *Implement a web services-based technical architecture for CWS-NS meeting County and State business requirements, including data management and reporting solution that is consistent with Federal Statewide Automated Child Welfare Information System (SACWIS) requirements.*

Guided by this overall project objective, the CWS-NS Project is tasked with achieving the following specific project objectives:

- Acquire (buy/build) and implement a new statewide automated child welfare system (the CWS-NS) that:
  - Replaces the CWS/CMS functionality.
  - Meets all mandatory federal SACWIS requirements and those optional SACWIS requirements selected by the State for implementation.
  - Meets the current and future needs for the delivery of child welfare services for county, state, and federal stakeholders.
  - Meets known business requirements for the delivery of child welfare services and provides CWS workers with the necessary tools to ensure child safety, child and family well-being and permanency for children.
  - Automates routine activities (e.g., documenting actions and activities, data management and reporting) and supports complex tasks (e.g., decision support in child protective services, placements, financial management, case management, and case planning).
  - Supports changes in policy and regulations in a timely manner and will enable efficient automation of future changes to child welfare services practice or program.
  - Meets applicable federal and State policies for security.
  - Provides the capability for State and community partners to exchange information through automated interfaces.
  - Uses a modern service-oriented architecture that implements web-based capabilities and conforms to California Health and Human Services (HHS) Enterprise Architecture Program standards and guidance.
- Acquire a Systems Integrator who:

  - Is capable of delivering a quality SACWIS to the counties and CDSS in a timely and effective manner.
  - Complies with the business and contractual requirements specified in the CWS-NS contract.
  - Provides a best value solution to the CWS-NS Project and stakeholders.
  - Partners with the CWS-NS Project and stakeholders in an open, cooperative, and productive manner to minimize risk and achieve project objectives.
  - Provides system delivery, data conversion, system implementation, system training, and maintenance and operations services using industry best practices.
- Ensure that the CWS-NS Project activities are conducted and managed in a manner that:
  - Provides bi-directional communication with all stakeholders to ensure their needs are understood and addressed.
  - Uses best practices for project management, procurement, contract management, IT system development, implementation, and operations.
  - Uses project and stakeholder resources efficiently and effectively.
  - Ensures continued federal funding and county support.
  - Ensures the timely procurement and implementation of a best value solution with minimum risk.

2.2 Scope Management

Scope definition and scope management within the Scope Management process group ensures the project includes all the work required, and only the work required, to complete the project successfully. Scope management includes the definition, monitoring, verification, and control of project scope. Scope management is an integral part of project management and is utilized from project initiation through project completion.

The CWS-NS Project scope is managed through the various management plans, project documents, reviews, and change control processes. The project plans are used in scope management to define the project work activities and products that comprise the project scope. Project documents are reviewed to ensure the scope as established in the CWS-NS Project Charter, federal Advance Planning Documents (APDs), and this PMP is not inadvertently changed.

The CWS-NS Project primarily controls project scope through the execution of the change control process and procedures described in the CWS-NS Change Management Plan. The change control process ensures that the nature and impact of a proposed change are identified, analyzed, understood, approved, and communicated. The scope change control process is further discussed in Section 4.2

Scope management on the CWS-NS Project also includes defining and monitoring the project scope. A Work Breakdown Structure (WBS) is used to establish the definition of the CWS-NS Project's project scope and serves as the baseline for monitoring project scope in terms of the activities performed and the products produced by the project.

In addition to the project scope, the CWS-NS Project defines and maintains a definition of the project's product scope. The product scope defines the features and functions of the primary product or solution to be provided as a result of performing the project activities.

The CWS-NS products are initially defined during the planning phase of the project to establish and communicate the vision to be achieved by the project and to serve as a guide for determining the various related products to be produced by the project and the activities to be performed to produce those products. The initial definition of the CWS-NS system is monitored, elaborated, and refined throughout the project lifecycle with more detailed information as the CWS-NS System and its related products are developed and implemented.

The following sections describe the approach to be used on the CWS-NS Project to manage scope of the project and the CWS-NS system.

2.2.1 Project Scope Statement

The CWS-NS Project is a collaborative effort comprised of state, county, and vendor staff. Under the direction and sponsorship of California Department of Social Services (CDSS), the Office of Systems Integration (OSI) has been designated to provide project management services to implement the CWS-NS system and to oversee the development, implementation, operations, and maintenance of the CWS-NS, including the transition from the existing CWS/CMS to the CWS-NS.

Throughout the life of the project, CDSS and county staff and management will participate in the definition of business needs, development of solicitation documents, requirements analysis, system design and implementation activities to ensure the business needs of child welfare services are fully satisfied.

The CWS-NS Project scope defines the extent and nature of the work to be performed by the project in order to deliver a product, the CWS-NS System, with specified features and functions.

2.2.1.1 Project Activities

The CWS-NS Project activities include planning and organizing the project activities, procuring contractors and staff, defining the requirements the CWS-NS system, designing and developing the CWS-NS system, converting existing data and decommissioning existing county systems and transitioning the use of the CWS/CMS to the CWS-NS system. The project activities also include performing ongoing maintenance and operations for the CWS-NS system after implementation.

The specific activities of the CWS-NS Project are defined through the CWS-NS Project WBS. A summary definition of each of the major WBS elements along with the identification of their key products is provided in Table 2.1 – CWS-NS Major WBS Elements and their Key Products.

Figure 2.1 – CWS-NS Project Activities and Products identifies the major CWS-NS Project activities organized by Work Breakdown Structure (WBS) elements and the types of products produced from those activities.

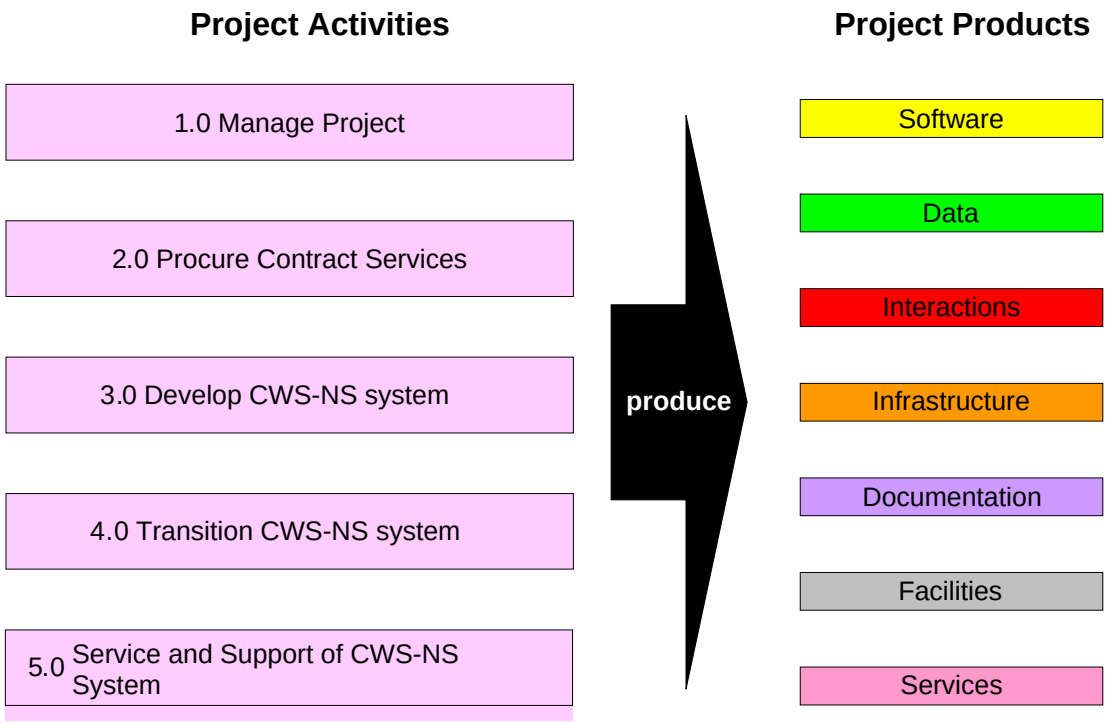


Figure 2.1 – CWS-NS Project Activities and Products

2.2.1.2 Project Products

The CWS-NS Project products are created or provided by the CWS-NS Project activities, including activities performed by state, county, and contractor staff. The CWS-NS Project products have been grouped into the categories such as software, data, interactions, hardware, documentation, facilities, and services. The definitions of these CWS-NS product groups are listed below:

- Software consists of the CWS-NS application software, other application software, project management tools, and commercial off-the-shelf (COTS) software products.
- Data consists of converted CWS/CMS data and other data converted or placed into the CWS-NS database and data captured and maintained for managing project activities.
- Interactions consist of files, pages, reports, notices and other information products produced by or used by a system. These interactions include system to system interfaces.
- Infrastructure consists of computer and network equipment procured for incorporation into the CWS-NS environments or for use by other project activities and services.
- Documentation consists of plans, solicitation documents, contracts, reports, specifications, manuals, procedures, documents to secure funding and approvals, and communications to management and other stakeholders.
- Facilities consist of work areas, training facilities, office space, or other facilities procured or established to support the CWS-NS environments or project activities and services.
- Services consist of ongoing project activities in support of the CWS-NS system such as system operations, application and equipment maintenance, service desk support, training, and consultation.

The primary product of the CWS-NS Project, the CWS-NS system, consists of components from all of these product groups. Additional CWS-NS system products consist of the CWS-NS Support Systems, CWS-NS Facilities, CWS-NS Users, CWS Business Processes, and CWS Business Process Documentation. The major components of the CWS-NS system and its subcomponents include:

- CWS-NS System

The CWS-NS Application, CWS-NS Infrastructure, and related CWS-NS Documentation that performs and defines the automated support provided as part of the CWS-NS system in support of the CWS-NS Business Processes.

- CWS-NS Application

  The complete collection of software that perform services in support of CWS business processes, databases containing the CWS-NS Data, and interactions sent or received by the CWS-NS Application.

  - CWS-NS Services

    The software that performs and supports the system functionality provided by the CWS-NS Application. CWS-NS Services are groups of individual CWS-NS Application Services. Collectively, the CWS-NS Services comprise the CWS-NS Application.

  - CWS-NS Interactions

    Sets of data communicated or exchanged between the CWS-NS System and another entity. A CWS-NS Interaction is created by the CWS-NS Application and transmitted to an internal or external entity or created by an external entity and received and processed by the CWS-NS Application.

  - CWS-NS Database

    A set of related CWS-NS data without regard to the location or structure of the data. The CWS-NS Database is a conceptual repository of CWS-NS data entities that are stored and maintained for use by CWS-NS Services. The CWS-NS Database is part of the CWS-NS Application.

- CWS-NS Infrastructure

  The collection of equipment, communication hardware, enterprise middleware and database management system software upon which the CWS-NS Application operates. Equipment is hardware or a machine and its related operating software, if any.

- CWS-NS Documentation

  Electronic or printed information, plans, reports ,manuals, instructions, explanations, definitions, files, codes, keys, tables, or materials that are used in connection with the equipment, software, procedures or processes that comprise the CWS-NS System.

- CWS-NS Support Systems

  The independent systems or software tools used for system development, testing, project management, or to support Maintenance and operations activities for the CWS-NS system, but which are not integrated into the CWS-NS Application.

- CWS-NS Facilities

The collection of buildings, rooms, and offices used to house CWS-NS staff and equipment and the desks and office equipment used by staff.

- CWS-NS Business Processes

  The business operations, program management and Maintenance and operations activities performed by the CWS Program.

- CWS-NS Business Process Documentation

  Electronic or printed information, plans, reports, manuals, instructions, explanations, definitions, files, codes, keys, tables, or materials that are used to define the CWS Business Processes related to the CWS-NS system.

- CWS-NS Users

  Individuals who have authorized use of and access to the CWS-NS System or the CWS-NS Support Systems.

2.2.2 Work Breakdown Structure

The WBS is a hierarchical decomposition of the work to be executed by the project team to accomplish the project objectives and create the required deliverables. The CWS-NS organizes and defines the total scope of the project. The WBS groups the project work into logical categories, and provides a framework for later decomposition in the project schedule.

The CWS-NS Project WBS is used to plan, define, and manage the scope, cost, and schedule of the CWS-NS Project. It groups the work to be performed into five major areas (first level) that define the scope of work in terms of the activities to be performed by the CWS-NS Project.

A summary definition of each of the major WBS elements is provided in Table 2.1 – CWS-NS Major WBS Elements and their Key Products.

Table 2.1 – CWS-NS Major WBS Elements and their Key Products

WBS ID	WBS NAME	DESCRIPTION	KEY PRODUCTS
1.0	Manage Project	Manage Project is the set of ongoing project activities to plan, monitor and control all other project activities. Manage Project includes the development and maintenance of the project management plans and schedule and conducting project management activities for risk management, issue management, cost management, schedule management, change management, document management, staff management, and communications management. Manage Project also includes contractor management and support of project oversight activities. In addition, activities related to the development and submission of control agency documents is within this scope of work.	• Project Charter • Project Management Plan and related project management plans • Project Schedule • State and federal control agency documents (APDs, SPRs) • Acceptance Notices • Status and information reports • Communications • Change requests and change orders • Risks and issues • Project Library and records • Project facilities and office equipment
2.0	Procure Contract Services	Procure Contract Services is the set of ongoing project activities to plan and procure vendor services to support project activities. These activities include the procurement of project support services such as project management support, architecture support, Request for Proposal (RFP) assistance, Project Oversight Consultant (POC) services, Verification & Validation (V&V) services, technical consulting services, infrastructure support services, quality management support services, and other consulting services. A major set of activities within this element is the procurement of the CWS-NS Systems Integrator who will develop and implement the CWS-NS. Procure Contract Services includes the activities to develop solicitations, obtain bidder responses, evaluate and select bidders and approve and award contracts.	• IT Procurement Plans • Architecture Document • Business Requirements • Solicitations (RFP and RFO) • Evaluation Handbook • Evaluation and Selection Reports • Contracts

WBS ID	WBS NAME	DESCRIPTION	KEY PRODUCTS
3.0	Develop CWS-NS System	Develop CWS-NS System is the set of one-time activities performed to plan and develop the CWS-NS system. The CWS-NS system is the primary product to be produced by the CWS-NS Project. Develop CWS-NS system includes activities such as requirements (and/or gap) analysis, design, coding, testing, data conversion, implementation support during deployment, and technical reviews.	• Software Development Plan • Data Conversion Plan • Test Plan and materials • System and software requirements and design specifications • CWS-NS application software components • Development support systems • Solution support materials • Data models • Environments • Networks • Facilities • System manuals • Technical reviews • Development and test reports
4.0	Transition CWS-NS system	Transition CWS-NS system is the set of one-time activities performed to plan and transition the CWS/CMS System, staff and business processes to the CWS-NS system. These activities include preparing staff and external partners for the transition, training CWS-NS users, transitioning counties to the CWS-NS, and transferring development and implementation knowledge from the CWS-NS Systems Integrator to the state and county staff. These activities also include activities to initiate, plan, and support the SACWIS Assessment Review conducted by the Administration of Children and Families (ACF) to verify the CWS-NS is SACWIS compliant.	• Organizational Change Management Plan • Software Installation Plan • Software Transition Plan • Problem Resolution Plan • Master Training and Knowledge Transfer Plan • Technical Training Plan • Knowledge Management Plan • Orientation and outreach communications • County readiness assessments and

WBS ID	WBS NAME	DESCRIPTION	KEY PRODUCTS
			completion reports • Training curriculum and materials • Trained CWS-NS users • Transitioned counties • Knowledgeable CWS-NS technical staff • Completed SACWIS Assessment Review Guide
5.0	Maintenance and operations CWS-NS System	Maintenance and operations CWS-NS system is the set of ongoing activities performed to plan and conduct the activities to operate and maintain the CWS-NS system after it has been fully implemented and placed in operation as a production system. The activities include system operations, release planning, post-production updates, corrections, and enhancements. The activities also include the transfer of maintenance and operations knowledge from the Systems Integrator to state and vendor subsequent maintenance and operations staff.	• CWS-NS system Management Guide • Performance and Capacity Management Plan • Service Level Agreement • Backup and Recover Plan • Service Desk Support Plan • Service Desk services and reports • Maintenance and operations services and reports • CWS-NS releases and notes • System Change Requests • Change request impact analyses

2.2.3 Formal Acceptance of Scope

The formal acceptance of the project scope was accomplished through the CWS-NS Project Charter.

2.3 Schedule Management

Schedule management establishes the processes by which project schedules are developed, maintained, and controlled. Scheduling activities are performed in

accordance with the CWS-NS Project Schedule Management Plan. Schedule management is an integral part of project management and is utilized from project initiation through project completion.

The Schedule Management Plan addresses the following areas:

- Standards for schedule management
- Approach to schedule management, including schedule development, schedule tracking, schedule control, schedule reporting, and schedule close out.
- Roles and responsibilities for schedule management
- Tools used for schedule management

The CWS-NS Project uses Microsoft Project as a tool to integrate, monitor, manage, and control the overall CWS-NS Project Schedule. Any proposed change(s) to the schedule which would affect approved milestones require use of the formal change control process. The criteria for approval of these changes and the relationship to the project's change management process are described in the Schedule Management Plan.

2.4 Cost Management

Cost management is performed to ensure that the project is completed within the approved budget. Cost management includes the processes by which both the State and Federal fiscal and project cost perspectives will be developed, maintained, and managed. These cost management activities include establishing a cost baseline, managing and implementing changes to the cost baseline, and reconciling the baseline with the allocated spending authority from the state budget process. Cost management is utilized from project initiation through project completion.

State and Federal fiscal processes will be adhered to for the production of approval documents (e.g., Planning Advance Planning Document (PAPD), Implementation Advance Planning Document (IAPD), Feasibility Study Report (FSR) and Special Project Reports (SPRs)), and the tracking of encumbrances and expenditures. Tracking expenditures includes projecting the annual costs based on current actual cost data. The Project will adhere to state/federal processes that are governed by the requirements established by the DOF. State control agencies expect fiscal planning to be completed consistent with requirements established in the State Administrative Manual (SAM). Federal control agencies expect fiscal planning to be completed consistent with the Code of Federal Regulations (CFR). Because each of these perspectives is slightly different from the other, completed State and Federal control agency documents will be reconciled to each other (i.e., the approved spending authority must match the project cost baseline in the PAPD and the IAPD).

The CWS-NS Project Cost Management Plan details the processes and procedures used to manage costs throughout the project's life including the following:

- Approach to cost budgeting
- Roles and responsibilities
- Tracking expenditures
- Resolving variances
- Reconciliation between State and project management cost processes
- Cost management tool

2.5 Quality Management

Quality management establishes the processes by which project products and processes must conform to their specified requirements and adhere to their established plans throughout the project lifecycle. Quality management addresses quality in terms of two components, process quality, and product quality.

- Process quality focuses on the processes used to create the project deliverables. Process quality ensures the CWS-NS Project's processes are effective and in compliance with their respective plan.
- Product quality focuses on the project deliverables. Product quality ensures the project deliverables are of acceptable quality and that they are complete and correct.

Quality Management is utilized from project initiation through project completion.

2.5.1 Peer Review

The fundamental quality management tool used by the CWS-NS Project is the peer review process. For each document produced on the CWS-NS Project, a peer review will be conducted as a formal product quality conformance activity. It is the responsibility of the product owner to schedule the peer review. The peer review will be conducted as part of the product development activity. The peer review resources will be assigned in the project schedule as part of the product development activity. The peer review resource assignments for each peer review (which may include cross-functional participants) are identified by the product owner, the product owner's manager, and the review facilitator (for a formal peer review). Assignments are approved by the project manager.

There are two distinct types of peer reviews that are utilized on the CWS-NS project.

The first is an in-process peer review. For this peer review, the product owner can provide a version of a segment of the product or the entire product for peer review. During this review:

- Each peer reviewer captures any questions, comments, identified defects or additional notes (review outputs) as necessary to aid in defect correction. These review outputs can be provided on a review form provided by the product owner,

or can be provided as comments embedded within the product (at owner discretion).

- The peer reviewer submits the peer review outputs to the product owner for review and resolution.
- The product owner resolves the review outputs and communicates the action (accept, reject, refer) and the reason for the action.

The second form of peer review is conducted as a formal activity prior to baselining of the product. In this review:

- The peer review facilitator distributes the product for review, providing sufficient time for reviewers to review the product and record questions, comments, identified defects or additional notes (review outputs) using the CWS-NS Peer Review Worksheet.
- Prior to the Peer Review collects CWS-NS Peer Review Worksheets from all participants.
- The peer review facilitator consolidates review outputs into a master CWS-NS Peer Review Worksheet.
- The peer review facilitator and the product owner analyze all review outputs, records a suggested disposition and resolution in the CWS-NS Peer Review Worksheet.
- The peer review facilitator submits the CWS-NS Peer Review Worksheet for entry in the Peer Review database.
- The peer review facilitator schedules the Peer Review Meeting and provides access to the product and the master CWS-NS Peer Review Worksheet.
- The peer review facilitator manages the peer review meeting. Each item in the master Peer Review Worksheet is reviewed with the review participants. Each suggested action, disposition and resolution are communicated to the review participants. Items requiring discussion are addressed and mitigated.
- The review scribe (under direction from the peer review facilitator) records revisions and/or modifications to the disposition and resolution during the Peer Review Meeting.
- At the conclusion of the Peer Review Meeting, all participants sign a Peer Review Meeting attendance roster, documenting their agreement to the resolutions reached during the Peer Review Meeting.
- Upon completion of the Peer Review Meeting, the peer review facilitator completes any action items assigned during the meeting, finalizing the product, finalizes the master CWS-NS Peer Review Worksheet, submits the final product for baselining, submits the master CWS-NS Peer Review Worksheet for baselining, and ensures that the peer review database is updated with the final results of the review.

2.5.2 Defect Tracking

Defect tracking is an essential tool in quality management. The CWS-NS Project will utilize defect tracking to ensure identified defects are tracked to closure. The peer review process utilizes the CWS-NS Peer Review Worksheet as the method for capture, monitoring and closure of identified defects, as well as submitted questions and comments. The CWS-NS project will also use an MS Access database to archive and report on the results of each peer review, as documented in the CWS-NS Peer Review Worksheet.

2.6 Staff Management

Staff management includes the processes required to make the most effective use of the people involved in the project. Staff management identifies the amount and types of state and consultant staff necessary to perform the project activities; including roles and responsibilities, general tasking, and orientation and training requirements for staff to be effective in their jobs. The initial Staff Management Plan focuses on the approved planning and procurement phase of the CWS-NS Project. Subsequent updates will be made to the plan to reflect changes in staffing levels necessary for the system development and implementation and maintenance and operation phases of the project. Staff management is utilized from project initiation through project completion.

An organization chart may be provided in the staff management plan to visually communicate the reporting structure and the interactions/dependencies between individuals and workgroups.

The CWS-NS Project Staff Management Plan establishes the processes by which staff resources for the project are identified, acquired, and managed. Staff resources include contractor staff, Systems Integrator staff, as well as other external staff resources funded by the project. System Integrator staff resources will be addressed as part of the procurement and contract management process.

The CWS-NS Project Staff Management Plan details the project's approach to staff management including:

- Staff Planning
- Staff Acquisition
- Staff Orientation and Training
- Staff Tracking
- Staff Transition
- Roles and Responsibilities of project staff resources

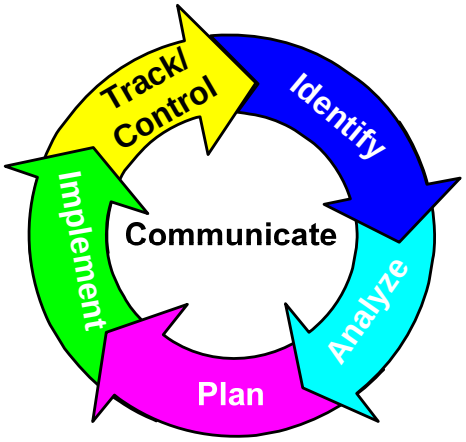
2.7 Risk Management

Risk management establishes the processes by which potential threats to project success are identified, mitigated, or eliminated. Risk considerations include technical, management, solicitation and contracting, performance, budget, resources, political, natural disasters and security. Risk management is an integral part of project management and is utilized from project initiation through project completion.

The CWS-NS Project Risk Management Plan defines the risk management process to be followed by the project, including the roles and responsibilities of the Project Director, Project Manager, Risk Manager, Risk Analyst, and Risk Owner that have been assigned "risk management" responsibility for the project. The CWS-NS Project Risk Management Plan documents processes that include regular reporting to project executive management. All CWS-NS Project contractors and their staff are required to adhere to the established risk management process. Risk Radar is used as a standard tool for tracking risks.

The Risk Management Plan utilizes an iterative model that defines risk management in terms of the six integrated, highly dependent processes. That model is shown in the following figure.

Figure 2.2 - Risk Management Model



The CWS-NS Project Risk Management Plan provides additional focus on the following activities during the execution of the above processes:

- Risk Identification
- Risk Assessment
- Risk Prioritization

- Risk Response
- Risk Tracking and Control

2.8 Communication Management

CWS-NS Project communication management includes the processes to ensure timely and appropriate generation, collection, dissemination, storage, and ultimate disposition of project information. Effective bi-directional communication with all stakeholders, both external and internal, is critical to project success. Communication takes many forms and includes communication through plans and process documents, schedules, reports, presentations, websites, meetings and personal contact. Effective bi-directional communication is also critical to project integration, coordination, and direction. Communication management is an integral part of project management and is utilized from project initiation through project completion.

The CWS-NS Project Communication Management Plan establishes the processes by which project information is developed, maintained and managed for project stakeholders both internal and external to the project. The project uses several forms of verbal and written communication described in the plan to ensure stakeholders, sponsors, executive management, team members, external agencies, and vendors involved in the CWS-NS Project have a clear understanding of the project scope and the status of project activities. These forms of communication include the project's scheduled reviews such as Project Team Meetings, Executive Management Meetings, and other stakeholder meetings.

For communication management purposes, the CWS-NS Project Communication Management Plan addresses the following:

- Project communication management roles and responsibilities
- Project communication by audience
- Internal and external communications
- Information management
- Communication tools and format

2.9 Configuration Management

Configuration management includes the processes necessary to establish and maintain control of project baselines and items that must be tracked and managed in a formal and systematic fashion. Baselines and the items to be tracked depend on the level of control the project must maintain on items in support of the product and process

execution. Configuration management is utilized from project initiation through project completion.

The Configuration Management Plan identifies all project artifacts (i.e., the project plans, processes, schedules, requirements, and other project products and deliverables) that need to be under configuration control, what phase they will be baselined, how baselines will be managed and how changes will be made to those baseline artifacts. The change management process, a core element of configuration management, has been extracted into a separate Change Management Plan, instead of being incorporated into the Configuration Management Plan.

2.9.1 Change Management

The CWS-NS change management processes are documented in the Change Management Plan defines the formal process for managing CWS-NS Project change requests. Change Requests are proposed changes to baselined project artifacts. The change management process is performed to ensure that all changes to baselined project artifacts are reviewed and approved in advance, and that those changes are coordinated and communicated across the entire project.

NOTE: Changes requested to artifacts (products) prior to their baselining are managed through the peer review process.

The CWS-NS Project Change Management Plan addresses the following:

- Change management roles and responsibilities
- Identification of proposed changes
- Change request initiation
- Change request analysis
- Change request resolution/approval
- Change request implementation
- Change request reporting

2.9.2 Document Management Plan

The Document Management Plan is focused on ensuring a consistent style and approach to creation, update, and format of documents. The CWS-NS Project Document Management Plan also includes processes for version control of project documents. For purposes of the Document Management Plan, a “document” is any electronic or hardcopy media designed to convey information about or on behalf of a project, including but not limited to memos, letters, spreadsheets, reports,

presentations, organizational charts, electronic mail, pictures, specifications, drawings, project binders, and books.

The CWS-NS Project Document Management Plan addresses the following:

- Document management roles and responsibilities
- Standards for document preparation and review
- Methods for document change control and version control
- Document storage, backup and retention

2.10 Procurement Management

Procurement management includes the processes required to manage the solicitation and acquisition of products and services to support the project. The CWS-NS Project uses two types of procurement methods: solicitations via the state leveraged procurement agreements, and competitive bids open to all vendors licensed to do business in the state. The basic methodology is the same for both, though the detailed activities vary considerably.

2.11 Contract Management

Contract management includes the processes to ensure contractors adhere to the terms and conditions of their contract and provide the required services and products that meet the expectations of the project. While procurement management focuses on acquiring a contractor, contract management begins when a signed contract is received and the project negotiates a start date with the contractor. Contract management ends when the all contracted services and products have been delivered, accepted, paid, and all associated contract paperwork and files have been archived.

The Contract Management Plan addresses the following:

- Review and approval of contractor deliverables
- Review and authorization of contractor invoices for payment
- Resolution of contractor deficiencies
- Processing of contract amendments and work authorizations

2.12 Governance and Issue Escalation

Governance defines the decision making process. It is focused on ensuring consistent management, cohesive policies, timely guidance, supportive processes and establishing decision-rights for a given area of responsibility. Its objectives are to ensure that the

entity that it governs produces a worthwhile pattern of good results while avoiding an undesirable pattern of bad circumstances by making decisions that define expectations, grant power, and verify performance. Governance requires a system of shared or overlapping membership, shared chairmanship responsibilities, and the coordinated participation of stakeholders in a broad range of oversight, technical and policy working groups.

The CWS-NS Project Governance Management Plan defines the governance organization, structure, roles and processes by which the project makes decisions and escalates issues to higher governance bodies for resolution. Communication of those decisions and resolutions are managed under the project Communication Management Plan.

The CWS-NS Project Governance Management Plan addresses the following:

- Project organization and stakeholders
- Project governance groups
- Decision process (authority, communication, closure)
- Issue resolution process
- Escalation process

2.13 Issue and Action Item Management

Issue and action item management includes the identification, definition, tracking, and closure of issues and action items throughout the project's lifecycle. Issues or action items may arise from meetings, analyses, document reviews, workgroups, and other project activities. Identified issues and action items are documented and entered into the OSI Management Tracking System (MTS) Database to ensure timely resolution or completion.

Issue and action item management is performed to ensure issues and action items are adequately tracked, assessed, documented, and approved/rejected prior to implementation. Issue management also encourages identification of potential issues early enough to minimize impacts, reduce rework and provide for the communication to stakeholders, management, and team members. Issue and action item management is utilized from project initiation through project completion.

The CWS-NS Project Issue and Action Item Management Plan addresses the following:

- Issue and action item roles and responsibilities
- Identification of issues and action items
- Validation and prioritization

- Issue analysis
- Tracking and reporting
- Resolution and closure
- Escalation
- Project issue and action item database and tool (MTS II)

2.14 CWS-NS Project Organizational Structure

The CWS-NS Project organization is an integrated team consisting of staff from OSI, CDSS, the counties, vendors and other participants. OSI has day-to-day management responsibility for the planning and execution of this project on behalf of the project sponsor, the Children and Family Services Division (CFSD) of CDSS.

The CWS-NS Project is under the direction of the CWS-NS Project Manager and performs the primary activities of the project. The Project is supported by the CDSS CWS-NS Program Support team and the OSI Project Management. Additional project support is provided by the Procurement Support team from the OSI Acquisitions Center who support the procurement activities of the project and contractor teams that provide specialized support to the project.

The Project performs the work necessary to manage the project, procure contract services and develop and facilitate implementation of the CWS-NS to replace the existing CWS/CMS. The Project Manager reports to the Project Director, who is responsible for both the operations of the CWS/CMS as well as the implementation and operations of the CWS-NS. The CWS-NS Project Manager works in close collaboration with the CDSS CWS-NS Program Manager to ensure the business needs of the CWS Program are understood and achieved by the project.

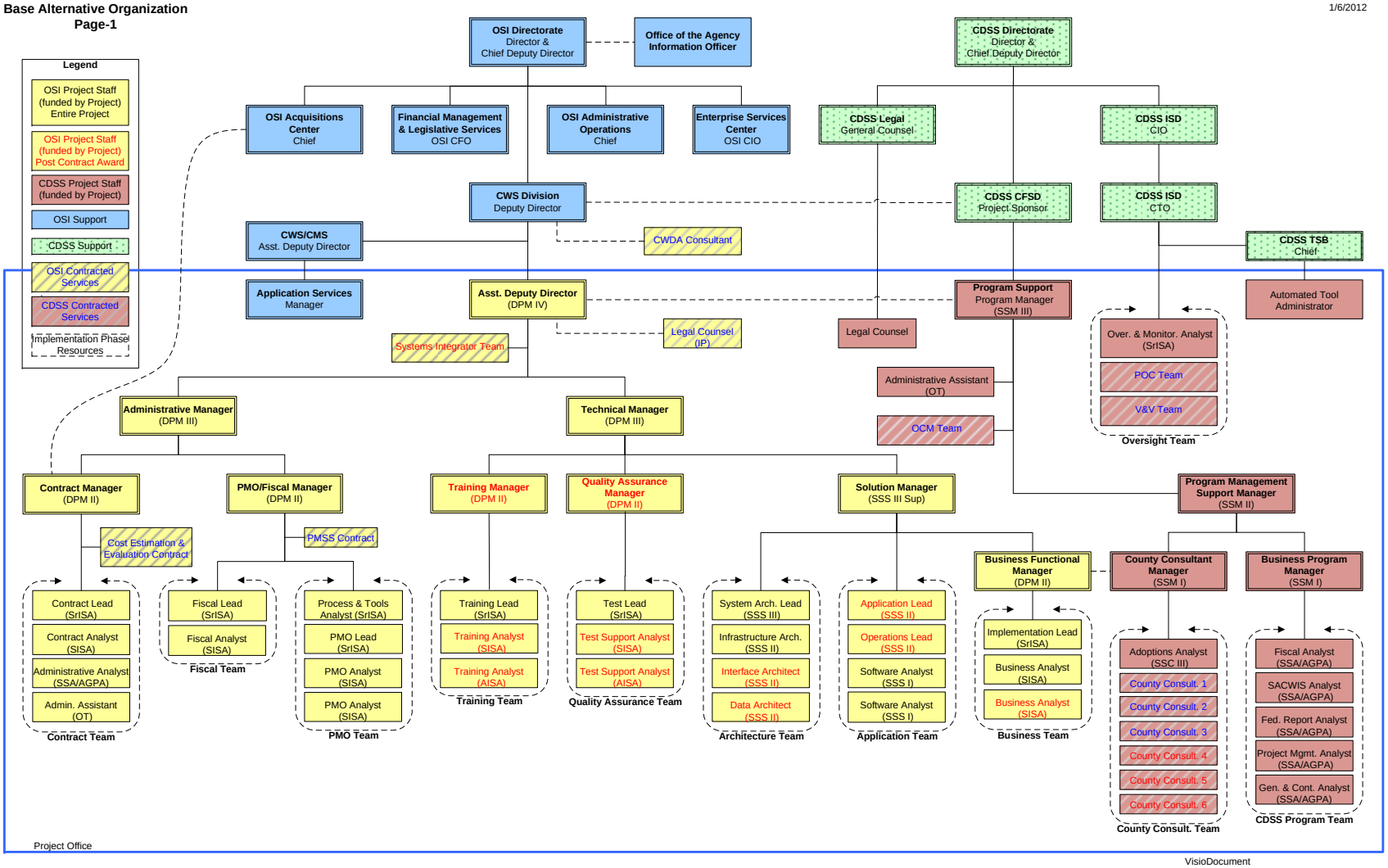
The chart in Figure 2.3 depicts the CWS-NS Project organization and staffing currently planned for the project. The chart identifies the CWS-NS Project (outlined with blue box) and its relationship to other entities that provide direct support to the project. These entities include OSI management and staff, CDSS management and staff, a legal support services consultant, and the project oversight consultants managed by the CDSS OSO and staff and consultants directly assigned to the CWS-NS Project. As indicated in the legend for the chart, the chart is color coded to identify those positions funded by the project (yellow), the OSI (blue) and CDSS (green) that provide support to the project. The chart also identifies the contracted services staff (yellow with diagonal lines) funded by the project and considered part of the CWS-NS Project.

The CWS-NS SI is being acquired to perform activities to develop and implement the CWS-NS. The SI staff will be incorporated into the CWS-NS Project once the contract is awarded. The organization and relationships for the CWS-NS SI management and staff will be included in this plan following the start of the SI contract.

The positions depicted in Figure 2.30 reflect all of the positions currently projected for the planning and implementation phases. Staff positions and contractors that are planned to join the CWS-NS Project in the future are noted with a month and year (mm/yyyy) notation.

Additional information on the roles and responsibilities of the organizations and staff depicted on the CWS-NS Project Organization Chart can be found in the CWS-NS Project Staff Management Plan.

Figure 2.3 - CWS-NS Project Organization



2.15 Project Assumptions and Constraints

2.15.1 Project Assumptions

The following project assumptions and constraints are used by the CWS-NS Project to record the rationale used in planning and conducting project activities. Assumptions and constraints are updated based on the experience and changing conditions. The project assumptions identified for the CWS-NS Project include the following:

Architecture

- The state will continue to maintain the existing CWS/CMS as required to meet critical business, legislative, and regulatory needs while building in parallel a new “California SACWIS”.
- External systems will be decommissioned at some point in time after their data is converted and their functionality has been incorporated into the CWS-NS System. Specific plans for transitioning from and/or decommissioning of external systems will be finalized during system design activities.
- The State OCIO, the California HHS Enterprise Architecture Program and the federal Medicaid IT Architecture (MITA) framework direct the use of Serviced-Oriented Architecture (SOA) and provide guidance and assistance through reference models, frameworks, standards and polices.

Reviews and Approvals

- Documents requiring approval will be approved by the appropriate State and federal control agencies.
- Persons assigned to perform reviews of project documents and specifications are available for the period of time during which the review is scheduled. Reviewers include team members, OSI, CDSS, county, OTech, and control agency staff.
- Reviewers (internal and external) document their comments in accordance with the project’s Peer Review process.
- External agencies perform their reviews within the standard amount of time required by those agencies:
  - OCIO – 20 business days
  - DGS – 25 business days
  - ACF – 60 calendar days

Resources and Stakeholders

- All centralized production hardware and software will be hosted at OTech.
- Maintenance and operations activities will be performed by a group established to maintain the system after it is released into production. This may include a combination of CWS-NS and existing CWS/CMS members.
- All CWS-NS Project positions that are requested are approved and are fully staffed with appropriate skills according to the CWS-NS Staff Management Plan.
- Persons assigned to the project are available to perform their responsibilities as scheduled and are not assigned to other non-project tasks without advance notification to project management.
- Broad and continued stakeholder support is necessary for project success.
- Appropriate state agencies will provide oversight from project initiation through maintenance and operation.
- CDSS Oversight Team reviews will generally be conducted concurrent with project team or management reviews and any resulting updates will be addressed jointly.
- Management decisions on policy, approaches, and issues are made in a timely manner that does not delay scheduled activities, and in alignment with the boundaries and guidelines established in the Project Governance Management Plan.

External Influences

- Effort estimates for completing the CWS-NS implementation assumes no major legislative change impact to existing requirements.
- State budgetary processes are completed in a timely manner that does not impact the project schedule or resource acquisitions.

2.15.2 Project Constraints

There are no major constraints currently facing the CWS-NS Project.

3 PROJECT EXECUTION

This section describes the key project strategies that have been developed by the project to define the approach and activities to be conducted during the life of the project. The section identifies and discusses the major project activities in terms of the project lifecycle phases used by OSI in managing IT projects. This section also

includes a discussion of how information will be distributed throughout the project lifecycle.

3.1 Project Strategies

The CWS-NS Project will develop strategies that focus on the planning and definition of project activities that are considered critical to the success of the project. These strategies consider and address areas of project risk or complexity that often cause project delay or hinder project success.

The following are strategies that are introduced in the following sub-sections:

- System Integrator Acquisition and Management Strategy
- County Engagement Strategy
- Requirements Management Strategy
- System Development Strategy
- Training and Knowledge Management Strategy
- System Implementation Strategy
- Maintenance and operations Strategy

3.1.1 Systems Integrator Acquisition and Management Strategy

The project is planning to contract with a Systems Integrator who will join the project team to develop and implement the CWS-NS system and then provide ongoing maintenance and operations support for a specified term. The Systems Integrator acquisition and management strategy was developed to define the approach for acquiring a contractor with the experience, knowledge, and abilities to successfully achieve the CWS-NS Project objectives.

The acquisition strategy begins with identification of the business problems, challenges, and future vision of the CWS program to determine the capabilities that need to be provided by the acquisition (buy) of a core infrastructure and core business capabilities. The project is using a multi-stage Request for Information (RFI) process to qualify existing products through a gap-analysis alignment between the program needs and the existing product capabilities. The final move toward contract execution will use a traditional Request for Proposal (RFP) solicitation. The RFP will define the Systems Integrator Statement of Work, to include the functional capabilities needed to support the requirements for the CWS-NS system.

Bidder responses to the RFP will be evaluated to select a “best value” bidder that will become the CWS-NS Systems Integrator.

Following contract approval and award, the project will use contract management best practices to ensure the Systems Integrator contract services are performed and

products are produced and delivered in accordance with the CWS-NS contract and accepted deliverables. The CWS-NS Project, including support from the CDSS Office of Systems Oversight (OSO), is responsible for overseeing the Systems Integrator and will monitor the System Integrator's compliance with all terms, conditions and responsibilities set forth in the CWS-NS contract, including cost, schedule, process, performance, quality and staffing requirements.

To ensure contract compliance, the project will create a Contract Management Plan that includes processes and procedures to monitor and evaluate the performance of the Systems Integrator. This Contract Management Plan will include the definition of products and services to be provided by the Systems Integrator and compensation strategies to reduce project risk and encourage quality performance. The required products will include plans to be prepared by the System Integrator, and accepted by the CWS-NS Project, that define the work to be performed by the Systems Integrator. These plans will be used by the CWS-NS Project and OSO to monitor and validate that the activities are performed in accordance with the accepted plans. In addition, the Systems Integrator will deliver specifications and other documentation to be used to monitor the development and transition of the CWS-NS system.

The Systems Integrator contract management approach also includes state, county and CDSS Oversight Team staff involvement in the development, review, validation and acceptance of Systems Integrator products.

3.1.2 County Engagement Strategy

The county engagement strategy recognizes the complex nature of the CWS-NS Project, the need for on-going collaboration, partnership, effective communication, and close coordination between CDSS, CWS-NS Project, the County Welfare Directors Association (CWDA), and counties. The strategy optimizes and incorporates county knowledge and expertise into CWS-NS Project planning, procurement, development, transition, and operations activities performed by the project. Because of the possible organizational impacts associated with a buy/build approach to product delivery, the goals of the county engagement strategy are to ensure:

- Stakeholder participation in functional gap identification and resolution
- Stakeholder participation in specification and development of custom services
- Reliable and constant communication between all stakeholders
- The CWS-NS system meets the needs of the CWS program and the users
- Stakeholder buy-in and acceptance of the gap resolution
- Stakeholder buy-in and acceptance of the new CWS-NS system
- Users are ready to fully utilize the system when implemented

- A high level of user satisfaction once the system is in production

A primary component of the county engagement strategy is a comprehensive communication approach that ensures the active participation of CDSS, the CWS-NS Project, and counties in the planning, development, and transition approaches and methodologies. Throughout the project, there is a need for partnership, and it is important the counties agree on the participation scope and process. To this end, the project will use a clear and agreed upon governance and communication management structure to ensure that all parties clearly understand how counties are participating in the CWS-NS Project.

County partnership in the CWS-NS Project expands upon the current CWS/CMS approach for involving counties. There is county involvement in all levels of governance. The structure is flexible in that it allows the state and CWDA to bring in additional state and county expertise as needed to address specific program and operational needs. This is a dynamic process requiring CDSS and the CWS-NS Project to continually monitor county engagement and, as necessary, modify county involvement to reflect evolving project needs. The governance and communication structure is also addressed in additional detail in the CWS-NS Project Governance Management Plan and the CWS-NS Project Communication Management Plan.

Continuous county involvement throughout all of the CWS-NS Project phases is essential to a successful transition to the CWS-NS system and its subsequent maintenance and operations. County engagement in CWS-NS Project phases will involve the following:

- Planning and procurement – Thorough and accurate definition of the products and services to be provided by the CWS-NS Systems Integrator and related support services contractors is essential to ensuring the business needs of the counties are met by the CWS-NS Project. CWS-NS Project plans and schedules include significant active participation of full-time county consultants and periodic participation by extended stakeholders.
- Overall system development – The analysis, development and testing of the CWS-NS system requires active participation by county staff to make sure that the solution meets the program's operational needs as well as the needs of the end users.
- County/State agency implementation – The project will address county and state agency needs as they plan and perform readiness and implementation activities.
- Project status and schedule – Counties require regular communications regarding the planning, schedule and progress of the CWS-NS Project to identify those activities where the county participation is essential and where planning must be done to ensure that resources for county participation are available when needed. The counties and state also engage in discussions to

define the level of support and accompanying costs for county staff time and expenses.

3.1.3 Requirements Management Strategy

The objective of the CWS-NS Project Requirements Management Strategy is to ensure that the CWS-NS system meets the business needs and objectives of the CWS program and its customers. The strategy also supports scope management of the CWS-NS system by properly identifying, documenting, monitoring, and controlling the requirements that define the business and technical needs throughout the contract term and the life of the system. The requirements management strategy will maximize the likelihood that the CWS-NS development process will deliver an application that functions as desired. The strategy defines an approach for requirements management that includes:

- Storing requirements in a secure and central location
- Tracking relationships among requirement artifacts
- Controlling changes to individual requirements and groups of requirements

In addition to these requirement management activities, the CWS-NS Project requirements management strategy includes the identification, definition, and interpretation of requirements throughout the project lifecycle.

The project strategy to acquire a Systems Integrator (SI) influences the types of requirements to be defined and the responsibilities of the various parties involved in the definition and management of those requirements. Since the system delivery approach is a buy/build model, the role of requirements specification is different than would be utilized for a custom build approach. While a set of detailed business requirements does exist for the CWS system, the initial focus will be the execution of a gap analysis against the purchased product. Identified domain experts from the program and the county user community will work with the SI to understand the capabilities of the purchased product, and ultimately identify gaps in the capabilities of the purchased product that will require development of a custom service.

The initial activities in the gap analysis will be in the form of demonstration, prototyping and simulation. The gap analysis participants will “use the system” as it is delivered/configured (no customization) in a day-in-the-life simulation of their work tasks. From this simulation, gaps will be identified and decisions will be made if the gap can be filled without development of a custom service. If development of a custom service is deemed necessary, the same domain expert group will engage in an iterative requirement specification exercise that will utilize a combination of prototyping and traditional requirements specification to develop the custom service (an increment in the total product delivery).

In instances where a capability is missing in the purchased product and the decision is made to fill the gap without developing a custom service, the program and project

will collaborate on the Organizational Change Management activities required to effect the change in the business operations, outside the delivered automation.

As output from the gap analysis simulation, all capabilities that are native to the purchased product and support business practice need to be documented and traced as satisfied business requirements. This may result in some reverse engineering of requirements and/or association of existing (documented) CWS requirements to these native capabilities.

This approach requires that as requirements are identified and satisfied during the transformation from functional/technical requirements to system requirements to software requirements, traceability is documented and maintained. The CDSS Oversight Team will collaborate with the project team and the SI in these activities to verify and validate the delivered products.

This requirements management strategy will be reviewed and revised as necessary to integrate the CWS-NS requirements management process with the system delivery process of the SI.

The requirements management strategy can directly impact scope management through its impact on the definition of project scope. As a result, any proposed changes to the requirements, which could impact the project scope, must be submitted and managed through the project change management process. Refer to the CWS-NS Project Change Management Plan for additional information about the change management process.

While the primary focus of the requirements management strategy is on the CWS-NS system requirements, the strategy is also applicable to the management of contractor requirements related to the activities and the other products to be produced by the SI. These contractor requirements are stored, maintained, and controlled in the same manner as the CWS-NS system requirements; however, the monitoring of the achievement of those requirements is performed through the project's contract management processes.

For additional information on the requirements management approach, processes, and roles and responsibilities refer to the CWS-NS Project Requirements Management Plan.

3.1.4 System Development Strategy

The system development strategy for the CWS-NS Project includes the approach to planning and managing system development activities, analyzing requirements, developing the system, designing the system architecture, testing the entire system, converting existing data and establishing the various system environments. The successful completion of these activities and their acceptance by the CWS-NS

Project will be required before the CWS-NS application can be considered ready for implementation.

The system development strategy includes the use of an integrated team comprised of state, county, and vendor staff to develop the CWS-NS System. This integrated team brings together the skills, knowledge, and abilities needed to plan and conduct the system development activities of the project. The state and county staff will be supplemented by the acquisition of the CWS-NS Systems Integrator who will perform the major effort of delivering the CWS-NS. Throughout the system development effort, project staff will collaborate with the Systems Integrator and review their activities and products to verify processes and products are compliant with approved plans and specifications. The CDSS Oversight Team will support State staff with these efforts.

This system development strategy will be reviewed and revised following contract award to incorporate the system development approach of the selected Systems Integrator. The major system development activities to be conducted by the project are described in the following sections.

System Delivery Planning

Following contract award, the detailed planning and implementation of the system delivery activities will be a collaborative effort of the CWS-NS Project and the Systems Integrator. The Systems Integrator will work with the project to develop a System Delivery Plan that will be formally accepted by the State for acceptance. This plan will describe the specific activities, products, participant responsibilities, and timeframes for the system delivery activities. The plan contents will follow industry standards and best practices and must comply with the product and services requirements of the CWS-NS contract.

Managing the performance of the system development activities defined in the System Delivery Plan is the responsibility of the System Integrator; however, the CWS-NS Project is responsible for collaboration and oversight of the Systems Integrator activities. As indicated in Section 3.1.1 Systems Integrator Acquisition and Management Strategy, the deliverables developed by the Systems Integrator will be used to monitor the subsequent system development activities performed by the Systems Integrator, and to validate that those activities are performed in accordance with contract terms, best practices or previously accepted plans and specifications.

System Delivery and Testing

The specific system delivery and testing activities to be performed and the methodologies and tools to be used will be defined by the Systems Integrator in its response to the CWS-NS RFP. The CWS-NS Project will collaborate with the SI on the plan and execution of these activities to ensure that they are performed according to industry standards and best practices.

Project staff and user representatives from CDSS, counties, OTech and other system partners will actively participate in the system delivery and testing activities to clarify and refine requirements, define business rules, evaluate proposed design features, and review plans, specifications and other materials to ensure the needs of the CWS program and users are met. Technical Verification and Validation (V&V) consultants will participate with the state in the validation of the completeness and quality of the products produced by the application development and testing activities.

The system delivery and testing activities will begin with the gap analysis activity and continue through system architecture design/delivery, software requirements analysis, system design, configuration and/or coding and unit testing, integration testing, system testing, performance testing and user acceptance testing. User acceptance testing will be the responsibility of the State with county participation and with support provided by the Systems Integrator. As indicated previously, the detailed nature of these activities will be reviewed and revised based on the system development approach and methodology to be used by the selected Systems Integrator.

In conjunction with the system delivery and testing activities, the Systems Integrator will conduct related activities to define the CWS-NS data models and to design and build the databases to be used by the CWS-NS System. These databases will be used and validated as part of the system delivery testing activities and as part of the data conversion activities.

To support the system delivery and testing activities, the Systems Integrator and the State will also conduct activities to acquire equipment and establish the technical system environments necessary for application development, system and acceptance testing, performance testing, training, conversion testing, user acceptance testing and production operations.

System Architecture Design

The system architecture design activities will be based on the CWS-NS system requirements and will support the project's objective to use "a modern service-oriented architecture that implements web-based capabilities and conforms to California Health and Human Services (HHS) Enterprise Architecture Program standards and guidance."

Using a service-oriented architecture (SOA) will provide agility, improve system maintainability, and implement standard interfaces to systems so other partner agencies can interoperate with the CWS-NS as defined by the HHS Enterprise Architecture Program. The CWS-NS SOA will serve users and partner applications by enabling them access to business process functionality through a standard web browser, web services, or messaging components. The CWS-NS SOA will enable state agencies and counties to connect to the system and interact via web standards. Through these standards, the system will facilitate secure access to the application for any authorized user or partner.

The Systems Integrator will use the CWS-NS system requirements established in the RFP as the foundation for definition of the system architecture. The system architecture team will work closely with the system delivery team, database design team and the infrastructure team to ensure the CWS-NS System is an integrated solution that meets the business needs.

A key success factor of the CWS-NS SOA is the governance of the overall SOA effort before, during, and after the implementation of CWS-NS System. SOA governance is a concept used for activities related to exercising control over the services in an SOA. A governance model will have to be collaboratively developed by the XXP Project, CDSS and CTA that will support the governance of the services to be developed and shared by and between various state agencies. To enable state agencies to use these services, the services must be planned, designed for shared use, and built and maintained in a managed and controlled fashion. Consequently an SOA increases the need for good governance to help assign decision-making authorities, roles and responsibilities, to manage and control SOA services, and bring focus to the organizational capabilities needed to be successful.

To ensure compatibility with State and Federal partner visions for SOA, the CWS-NS SOA will be guided by the standards and policies defined by the State Technology Agency and Federal partners. In addition, CWS-NS will be guided by the OSI Solution Architecture Framework (SAF). The SAF leverages existing work performed by other groups and is compatible with existing architecture programs such as the California HHS Enterprise Architecture Program, the Federal Enterprise Architecture Program (FEAP) and the Medicaid IT Architecture (MITA). The SAF provides a set of principles to help make supportable and consistent decisions.

The following SAF architecture principles are being used on the CWS-NS Project to guide architectural decisions:

- Business drives information technology
- Just enough architecture, just in time
- Common business solutions
- Data is an enterprise asset

- Secure enterprise information
- Compliance with statewide standards
- Compliance with law

For additional information on the SAF and these architectural principles, refer to the OSI Solution Architecture Framework.

Data Conversion

Data conversion (migration and transformation) is a critical success factor as it provides data continuity from the current CWS/CMS and other local systems to the CWS-NS. The CWS-NS Project continues to work with counties to identify and analyze external systems that are candidates for decommissioning when the CWS-NS is implemented. Any system, software, application, or procedure that contains functionality/data that duplicates proposed CWS-NS functionality, is a candidate for decommissioning and data conversion. CDSS will continue to survey the counties to obtain information about their existing systems. This survey will provide CDSS with a comprehensive understanding of what systems have been developed, and will enable CDSS to collaboratively work with the counties for decommissioning and data conversion strategies.

The CWS-NS Project has included activities and products needed to convert the data from current systems to the CWS-NS as part of the services to be performed by the CWS-NS Systems Integrator. The Systems Integrator will be required to convert CWS-NS system required data from any other county or State system that is decommissioned and replaced by the CWS-NS.

The Systems Integrator will work with the project to develop a Data Conversion Plan and a Data Conversion Specification that will be submitted to the State for acceptance. The Data Conversion Plan will describe the strategy for data conversion and migration including the specific activities, products, participant responsibilities and timeframes for the data conversion and migration activities. The plan contents will follow industry standards and best practices and must comply with the product and services requirements of the CWS-NS contract.

The Data Conversion Specification will include detailed information of the data conversion rule definitions for all data to be converted for the CWS-NS system. Project staff and representatives from CDSS and the counties will actively participate in the conversion activities to clarify and refine requirements, define data rules and review the specification to insure accuracy of the specification. County and CDSS staff will also be directly involved in the preparation and clean-up of existing data, validation of the converted data and clean-up of the converted data after the actual conversion.

The current data conversion strategy provides a framework for planning the activities for the implementation phase and for delivering the product and services

requirements defined in the CWS-NS RFP. This data conversion strategy will be reviewed and revised following the award of the contract to incorporate the data conversion approach of the selected Systems Integrator.

The CWS-NS Project data conversion strategy is based on the three primary phases needed for a data and system conversion: Pre-conversion, Installation, and Post-installation.

Pre-conversion is the first and most extensive phase. Pre-conversion includes activities prior to and leading up to the conversion, such as developing the conversion plan and conversion specification, data clean-up and validation, developing data conversion tools and conducting necessary analysis and testing. Documentation and training guides needed to support the data conversion will also be developed and tested.

Installation is the second phase and includes activities to actually convert CMS/CWS and external system data to the CWS-NS, such as testing system process and data edits, managing the critical path, supervising workload completion and reconciliation.

Post-Installation includes activities occurring after the actual CWS/CMS data conversion, such as verification of data integrity, final disposition of the current CWS/CMS data, and performing post conversion data clean.

3.1.5 Training and Knowledge Management Strategy

The CWS-NS Project training and knowledge management strategy guides the assessment, design, development, delivery, and evaluation of the project's training and knowledge management program. The strategy includes the approach to prepare state and county users by providing the necessary support prior to, during and after implementation. As part of the strategy, the Systems Integrator will provide training and technical knowledge transfer during the CWS-NS system implementation and throughout maintenance and operations activities.

Training CWS-NS System users consists of the activities performed to prepare the users of the CWS-NS System and enable them to effectively use the CWS-NS System in conducting their business responsibilities. The training approach will incorporate a number of training principles, types of training, training materials and classes. The Systems Integrator will work closely with the CWS-NS Project and state and county user representatives to define the specific training approach and curriculum, prepare training materials, coordinate training schedules, and arrange for training facilities.

During the system delivery phases, internal and external partner users will be provided access to a Sandbox environment where they will be able to use the system, train themselves through use and simulation, and provide timely feedback to the CWS-NS project and SI regarding the functionality of the emerging system.

The Systems Integrator will provide direct training to users in varying types of roles such as trainers, CWS workers and help desk staff. The training will be provided during the implementation and deployment of the CWS-NS system. The CWS-NS Project will collaborate with the SI on the training approach and curriculum to ensure it meets the needs of the counties and other users. The XXP project will monitor the development of training materials and the delivery of the training to ensure compliance with the approved plans and curriculum.

Knowledge management consists of the activities and training performed to provide state and county technical resources and staff with the prerequisite knowledge, resources, and expertise necessary to perform maintenance and operations functions for the CWS-NS system. For additional information on the maintenance and operations roles and responsibilities of the state staff refer to Section 3.1.7 Maintenance and Operations Strategy.

The design, development, and execution of the CWS-NS training and knowledge management activities will adhere to the following principles during the design and development of the training curriculum:

- Modularized Approach – The CWS-NS Project training and knowledge management approach will use a building-blocks concept when developing modules rather than a process approach.
- Comprehensive Training Program – The CWS-NS SI Master Training and Knowledge Management Plan will ensure that all learning requirements are met.
- User Involvement – The training and knowledge management approach and curriculum will be validated through extensive interaction with the CWS-NS Project and county representatives.
- Flexible Approach in Training Delivery – A mix of proposed delivery approaches will be used to ensure the training and knowledge transfer will be available at the time and point of need.
- Ongoing Support – The training approach will consider a long-term perspective to support the CWS-NS system after the implementation phase and throughout maintenance and operations activities.

For additional information on the training and knowledge management strategy, refer to the CWS-NS Training and Knowledge Management Strategy.

3.1.6 System Implementation Strategy

The CWS-NS Project system implementation strategy defines how the CWS-NS Project will develop and implement the CWS-NS system in two separate phases. The objective of this strategy is to minimize the timeframe for achieving a SACWIS compliant solution while meeting the business needs of the CWS program. The state will have overall management authority and accountability for the successful

implementation of the system. The Systems Integrator will be responsible for managing and controlling the system delivery effort.

The two delivery phases of the CWS-NS system are referred to as the Initial Release and the Future Release. Details of capabilities, schedule and delivery of each phase are provided in the CWS-NS project schedule. At a high level, they will provide the following:

- CWS-NS Initial Release – the delivery of the core business needs required to facilitate end-of-life of the existing CWS/CMS
- CWS-NS Future Release – the delivery of additional business functionality focused on improving business processes (not addressed in the initial release), achieving SACWIS compliance, filling non-critical business functionality gaps, and responding to changes in law and/or policy during the initial release period

3.1.7 Maintenance and Operations Strategy

The maintenance and operations strategy for the CWS-NS Project is based upon the State's recognition of the fact that performing maintenance and operations activities represents the largest investment of resources and funds over the life of the CWS-NS System.

Maintenance and operations activities will begin with the initial installation of the CWS-NS System and will continue until the end of the CWS-NS system life. During the operational life of the system, the CWS-NS system must have the capability to continually deliver the desired system integrity, availability and performance, as well as the ability to easily accommodate evolving programmatic and technology needs. The institutionalization of this capability is paramount to the success of the CWS-NS Project. To achieve this capability, the CWS-NS Project has adopted a Maintenance and Operations Model as a framework for defining and instituting maintenance and operations activities that will meet business needs as well as provide the flexibility to modify the sourcing arrangements to deliver a more cost effective system life.

This maintenance and operations strategy will be reviewed and revised following contract award to incorporate the maintenance and operations approach of the selected Systems Integrator.

3.2 Project Activities

This section describes the major activities to be performed during the CWS-NS Project lifecycle. The CWS-NS Project activities are described in the following sections in terms of the OSI project lifecycle phases as described by OSI Best Practices. The OSI project lifecycle phases are as follows:

- Initiation Phase

- Planning Phase
- Procurement Phase
- System Development Phase
- System Implementation Phase
- Maintenance and Operations Phase

3.2.1 Initiation Phase

The initiation phase includes the activities necessary to secure approval for the establishment of the CWS-NS Project. During this phase the CWS-NS Project purpose, scope, and objectives are defined, the CWS-NS Project Charter is created and approved, and the State and federal project planning documents are developed and approved. The approval of the federal PAPD provides the federal permission and funding to begin the subsequent planning phase activities. Approval is obtained from the State via the submission of a Feasibility Study Report (FSR) based on the PAPD.

3.2.2 Planning Phase

The planning phase includes the activities necessary to establish the CWS-NS Project and to plan the activities for all phases of the project. The planning phase begins with the activities to form the CWS-NS Project including recruitment and selection of state staff; and the acquisition and configuration of Project desktop computers, facilities, office automation servers, printers, and infrastructure network and telecommunications equipment.

Stakeholder definition, governance, and accountability mechanisms are also established to ensure a cooperative and synergistic partnership between all project stakeholders. The project scope is further defined in terms of the WBS, the products to be produced, and the creation of project management plans and processes, including this PMP.

The planning phase also focuses on the analysis and definition of customer requirements that are to be met by the CWS-NS system and the preparation of the federal Implementation APD (IAPD). The IAPD is a written plan of action that the state uses to request federal financial participation (FFP) in the costs of delivering the CWS-NS system. The IAPD is a comprehensive document that summarizes the efforts of the planning phase and describes the objectives, approaches, activities, costs, and benefits of the implementation phase.

The planning phase activities are conducted concurrently with the procurement phase activities.

3.2.3 Procurement Phase

The procurement phase includes the activities necessary to plan and acquire contracted services needed to support the CWS-NS Project. The CWS-NS Project strategy, as defined in the Project Charter, requires the acquisition of a Systems Integrator (SI) to conduct the delivery and initial operations activities for the CWS-NS system. In addition, the project strategy includes the acquisition of contractors to provide a specialized project support services that are temporary in nature, or are needed to supplement the knowledge, skills, and abilities of the project staff. These additional contractors include experienced county staff contracted as County Consultants to provide in-depth knowledge and experience of county child welfare operations.

The primary focus of the procurement phase is planning the acquisition of a qualified contractor to be the CWS-NS SI. The activities include developing the CWS-NS RFP to be used to identify and evaluate qualified suppliers of an CWS-NS system. The development of the RFP will result in identification of the business requirements that must be provided through either the buy or the build phases of the suppliers bid. The RFP also includes administrative requirements, a draft contract, and other proposal requirements necessary to conduct the solicitation in accordance with state and federal requirements. The RFP also includes the process and criteria to be used to evaluate bids and select the proposal that best meets the RFP requirements and the business needs of the state and counties.

Several project support services contractors may be acquired during the procurement phase. These contractors include Project Management Support Services (PMSS), Quality Management (QM), Planning Document Assistance, Project Oversight Consultant (POC), Verification &Validation (V&V), Legal Support Services, Stakeholder Management Support Services, Infrastructure Support Services, Cost Estimation and Evaluation Support, and Technical Consulting Services. The contractors are acquired utilizing competitive procurements administered in accordance with state and federal acquisition regulations. PMSS, V&V, POC, Legal Support Services, and Stakeholder Management contracts are planned from the procurement phase through the remaining project phases.

The procurement phase activities are conducted concurrently with the planning phase activities. During the subsequent system development phase, the project may also conduct procurements for additional contract services to provide Infrastructure Support Services and to re-procure some of the support services.

3.2.4 System Development Phase

The system development phase includes the activities necessary to configure/develop the CWS-NS. During this phase, the Systems Integrator collaborates with the CWS-NS project and with the domain experts to complete a gap analysis, define the configuration to be executed on the purchased product, and

executes the specification and delivery of the custom services. The Systems Integrator will also develop any necessary applications to prepare and convert any existing data into the CWS-NS system. Using the business capabilities defined in the CWS-NS contract, the CWS-NS Project and county subject matter experts work closely with the Systems Integrator to ensure that the delivered product (purchased and custom services) provides the needed business capabilities, is thoroughly tested, and contains all converted data.

The planned activities for the system development phase will be reviewed and revised following contract award to incorporate the system development approach of the selected Systems Integrator.

The system development phase begins with the activities performed to plan the development of the entire CWS-NS system. See Section 2.2.1 Scope Statement for a description of the CWS-NS system. The plans produced by the Systems Integrator during this phase are submitted to the State for acceptance and define and guide the specific project activities conducted to develop the CWS-NS system. The CWS-NS Project collaborates with the Systems Integrator in the development of the plans, reviews and accepts the plans and monitors the subsequent development activities to ensure compliance with the approved plans.

Another necessary aspect of the system development phase are the activities performed to define and establish the various system environments, networks and facilities needed by the project to develop, test, train users and operate the CWS-NS System. The CWS-NS Project works with the Systems Integrator and technical staff from the OTech and the counties to define and review the infrastructure specifications and establish infrastructure components to ensure acceptability and compatibility with existing and planned infrastructures.

Activities are also performed during the system development phase to define and create the manuals and guides needed to understand, operate, and support the CWS-NS system. These supporting materials inform and guide end users, system operations personnel and help desk personnel. The CWS-NS Project and impacted personnel assist the Systems Integrator by defining content expectations and reviewing and accepting completed materials.

Throughout the system development phase, the CWS-NS Project manages the successful development of the CWS-NS system by the Systems Integrator. The CWS-NS Project is responsible for overseeing the Systems Integrator and managing the state and county resources as the system requirements are fully defined and decomposed, and the system is designed, developed, tested, and accepted. The CWS-NS Project also monitors the Systems Integrator's compliance with all terms, conditions and responsibilities set forth in the CWS-NS contract, including cost, schedule, process, performance, quality and staffing requirements. The CWS-NS Project conducts detailed acceptance reviews of the specifications created by the Systems Integrator to verify that the CWS-NS business requirements are properly

addressed. In addition, separate acceptance testing is performed by stakeholders under the guidance of the CWS-NS Project to verify the completed system also meets the business requirements.

3.2.5 System Implementation Phase

The system implementation phase includes the activities necessary to transition from the existing system (the CWS/CMS and any county-based systems targeted for retirement) to the CWS-NS system. These activities include business process improvement, organizational change management activities, site preparation, data conversion, training, and system roll-out. Some of the activities overlap with the end of the system development phase and the beginning of the maintenance and operations phase. For example, county and state staff will perform data conversion preparation activities concurrent with the end of the system development phase.

The planned activities for the system implementation phase will be reviewed and revised following contract award to incorporate the system implementation approach of the selected Systems Integrator.

Because the system delivery will be accomplished through a combination of purchased capabilities and custom developed services, implementation will occur as five distinct activities, as follows:

- The first activity is the installation of the computing infrastructure. This includes the computing hardware (servers, routers, etc.) and communication backbone (WAN, LAN, Internet), as well as the software that provides the SOA environment.
- The second activity is provision of the purchased software that will provide the core business capabilities. This will include the gap analysis, gap resolution, software installation/configuration, provision/maintenance of the Sandbox, bi-weekly status reviews (Adobe Connect) with stakeholders/users, and defect and change request resolution. Testing is an ongoing and iterative process conducted throughout the purchased product delivery.
- The third activity is development of the custom services required to fill functional gaps in the purchased product that cannot be closed by some other means. This activity will incorporate activities inherent in incremental, iterative software development models. Prototyping and functional analysis will be used to define the requirements for the custom service development. Like the purchased product delivery, there will be incorporation of the Sandbox, bi-weekly status reviews (Adobe Connect) with stakeholders/users, and defect and change request resolution. Testing is an ongoing and iterative process conducted throughout the custom service delivery.
- The fourth activity is focused on data conversion from the existing CWS/CMS environment and decommissioned ancillary systems into the CWS-NS

system. An initial conversion of CWS/CMS data will be executed, and appropriately modified to ensure that no confidentiality issues are introduced, to support activities two and three above. A final conversion of all data sources will be executed just prior to the CWS-NS system go-live.

- The fifth and final activity is focused on delivery of interfaces to external partner systems. This activity is done in parallel with activity # 2 and # 3, and is critical to acquire data that is not available through the efforts of activity # 4.

Maintenance and operations activities will begin upon completion of the Initial Release and will continue through the Future Release and the subsequent life of the system. The existing CWS/CMS system will be decommissioned after acceptance of the Initial Release.

The system implementation phase begins with the award of the contract to purchase a system and expand its capabilities through the delivery of custom extensions.

A critical element of the system implementation phase activities is the preparation and transition of the counties from the existing system and business processes to the CWS-NS System and its business processes. These activities are facilitated by the Systems Integrator with significant support from the counties and CDSS. The Systems Integrator will collaborate with the CWS-NS Project, CDSS, the counties, and external interface partners to develop a work plan that ensures their readiness for implementation in their work groups and/or physical site. CDSS is responsible for review of the readiness of each site/work group implementation and grants approval before any implementations are made to those sites.

Prior to the actual transition of the counties, activities are performed to prepare for and communicate the business process changes and impacts that will occur as a result of implementing the CWS-NS system. The CWS-NS Project and the Systems Integrator will work closely with CDSS and the counties to define and execute communications strategies and techniques that keep impacted stakeholders informed about potential impacts, changes and the status of activities.

Much of the impact of the implementation readiness will be mitigated through use of the Sandbox environment throughout the system delivery.

Training activities are also performed during the implementation phase to prepare the users of the CWS-NS System to effectively use the CWS-NS System in conducting their business responsibilities. The Systems Integrator works closely with the CWS-NS Project and county representatives to define the training approach and curriculum, prepare training materials, coordinate training schedules, and arrange for training facilities. The Systems Integrator also provides direct training to end users in varying types of roles such as trainers, CWS workers, and help desk staff. The training is coordinated with the implementation of the CWS-NS System. The CWS-NS Project, CDSS and county designees review and accept the training approach and curriculum to ensure it meets the needs of the counties and other users and

subsequently monitors the delivery of the training to ensure compliance with the approved plans and curriculum.

As a supplement to the training activities, the project is requiring the Systems Integrator to perform knowledge management activities during system delivery and implementation. The knowledge management activities will provide the state and county personnel with the knowledge and skills needed to operate, maintain, configure, and modify the CWS-NS system. These activities will be performed by the Systems Integrator with support and participation from designated state and county staff. The CWS-NS Master Training and Knowledge Management Plan developed by the Systems Integrator and accepted by the CWS-NS Project will describe the approach for bringing managers, end users, and technical personnel to a familiar level of understanding of the CWS-NS system and how to use, operate, and maintain the system. Knowledge transfer occurs over the entire project lifecycle and is monitored by the CWS-NS Project to ensure the knowledge management activities are performed in accordance with the approved plan.

During the implementation phase, the project will also conduct activities to initiate, plan, and support the ACF SACWIS Assessment Review (SAR) of the CWS-NS System. The timing of the ACF SACWIS Assessment Review (SAR) is determined by ACF. This review will be conducted in accordance with the SACWIS Assessment Review Guide (SARG) to ensure that all aspects of the project, as described in the approved Implementation APD, have been adequately completed and conform to applicable regulations and policies. The CWS-NS Project will request the SAR and will submit the documentation for ACF review. During the on-site SACWIS Assessment Review, project and county staff will support the ACF reviewers, prepare responses, and correct identified deficiencies in the CWS-NS System or supporting manual procedures. The Systems Integrator will assist in resolving the CWS-NS System deficiencies identified during the review.

Throughout the system implementation phase the CWS-NS Project is responsible for collaboration and oversight of the Systems Integrator, as well as managing the state and county resources as the implementation is planned and the sites are prepared. The CWS-NS Project also monitors the Systems Integrator's compliance with all terms, conditions and responsibilities set forth in the CWS-NS contract and in accepted plans for the implementation activities and products.

3.2.6 Maintenance and Operations (M&O) Phase

The maintenance and operations phase includes the activities necessary to support the operations of the CWS-NS system and to modify and update the system after initial implementation. The maintenance and operations activities will begin upon installation of the Initial Release of the CWS-NS System, however, preparation for the transfer into maintenance and operations begins in the early planning phases of the project.

The planned activities for the maintenance and operations phase will be reviewed and revised following contract award to incorporate the maintenance and operations approach of the selected Systems Integrator.

OSI has adopted a Maintenance and Operations Model that defines and organizes the maintenance and operations activities into numerous functions. These functions are grouped into three dimensions; Service Oversight, Service Maintenance and Service Delivery. Refer to Section 3.1.7 Maintenance and Operations Strategy for a description of the Maintenance and operations Model and its use in defining and guiding the maintenance and operations activities of the CWS-NS system.

During the initial maintenance and operations phase, maintenance and operations activities are performed by the Systems Integrator. Those services may be re-assigned (via contract) to the SI at the end of the initial M&O period, or may be resourced through a new competitive bid. While it is planned that OTech will provide data center services for system operations, the Systems Integrator may be responsible for the computing hardware and will be responsible for operation of the CWS-NS as well as application maintenance and system changes. The maintenance and system change activities include the same types of activities that occurred in the system delivery and implementation phases. Other activities include monitoring and resolving system problems and ensuring system performance meets defined CWS-NS service level agreements (SLAs). The Systems Integrator will also provide a service desk to support system users. At the county level, a separate Infrastructure Support Services contractor may be procured to provide technical support to county customers for their desktop workstations, laptops, and printers. This contract would provide support to 37 dedicated counties while the remaining co-existent counties would have the primary responsibility for their own technical support.

The Systems Integrator will provide maintenance and operations activities for the CWS-NS system for a pre-negotiated period (in their contract) following state acceptance of the CWS-NS Initial Release. The State has the option of extending this period for additional years as specified in the SI contract. As part of these ongoing operations, the State also plans to have the Systems Integrator perform the system changes necessary to ensure the system continues to meet business needs and contains functionality that supports optimal service delivery. The system changes include updating the CWS-NS to meet new and/or changed functional and technical requirements of the CWS-NS system.

Also during this phase, the Systems Integrator will design, code, test and implement the CWS-NS Future Release (FR). The FR will consist of multiple custom services that implement additional functionality specified in the CWS-NS contract. The requirements associated to the FR will be developed and implemented at the State's discretion. The service delivery activities for the CWS-NS Future Release will be performed using the same processes that were used to develop the Initial Release custom services. The CWS-NS M&O organization will work with county

representatives to facilitate acceptance of the FR specifications to verify that the CWS-NS business requirements are properly addressed. In addition, separate acceptance testing will be performed by stakeholders under the guidance of the CWS-NS M&O Organization to verify the delivered custom services meet the business requirements.

An additional activity that will occur during the maintenance and operations phase is the transition of the responsibility for maintenance and operations activities and for oversight of the Systems Integrator from the CWS-NS Project to the CWS-NS M&O organization. M&O activities will include managing system problems, changes, releases, and the achievement of CWS-NS Service Level Agreements (SLAs). The CWS-NS M&O organization will collaborate with the Systems Integrator to plan maintenance and change activities, define and schedule releases, and monitor the achievement of performance requirements defined in the SLAs. The CWS-NS M&O organization will collaborate with counties and other stakeholders to define and clarify system and software requirements needed for the system changes and to validate those changes are properly implemented. The CWS-NS M&O organization will also collaborate with the CWS-NS Project to monitor the Systems Integrator's compliance with all terms, conditions and responsibilities set forth in the CWS-NS contract and in accepted plans for the maintenance and operations activities and products.

3.3 Information Distribution

The CWS-NS Project recognizes the importance of good communications in achieving project success. The Project Manager, in conjunction with the CDSS Program Manager is responsible for communications internal and external to the CWS-NS Project. For specific information on how project information is distributed throughout the project lifecycle, refer to the CWS-NS Project Governance Plan and CWS-NS Project Communication Plan.

3.4 Application Customization

The CWS-NS Project expects the CWS-NS systems that are proposed by bidders will vary in the number of purchased services that can be delivered and the number of custom services that will have to be developed. The project's acquisition approach does not require or preclude the customization of an existing system or the development of a custom application. However, unless the decision is made to abandon the buy/build model and do a complete custom delivery, there is an expectation that the awarded SI will deliver a major portion of the system using developed, tested and operational software that is not customized in any manner to meet functional capabilities needed by the business.. The acquisition approach is designed to obtain and select a "best value" solution.

4 PROJECT CONTROL

This section describes the approach that will be used to monitor and control the scope, cost, and schedule for the CWS-NS Project. The project recognizes that changes are inevitable on a project and that processes and procedures must be established and properly executed to enable the project to ensure that only beneficial and approved changes are made to project baselines.

4.1 Integrated Change Control

Integrated change control includes change management activities performed throughout the life of the project to identify potential changes, analyze the impacts of the changes, secure approvals to implement the changes, document the changes, and manage the implementation of the approved changes. Changes can impact many different aspects of the project and as such require a project-wide involvement in the identification, analysis, implementation, and communication of those changes to project staff and stakeholders.

Integrated change control is described in the CWS-NS Change Management Plan. That plan describes the change management process as an ongoing function that is performed throughout the life of the project to ensure that:

- Changes to baselined project items are reviewed and approved in advance.
- Changes are coordinated across the entire project.
- Stakeholders are notified of approved changes to the project.
- Changes are verified when implemented

For additional information refer to CWS-NS Project Change Management Plan.

4.2 Scope Change Control

Scope change control is a key element of the change management process used on the CWS-NS Project. As discussed in Section 2.2 Scope Management, the CWS-NS Project uses scope change control to ensure the project includes all the work required, and only the work required, to complete the project successfully.

The processes for scope change control are included in the change management process described in the CWS-NS Project Change Management Plan. That plan describes the approval bodies established to review and approve changes that impact the CWS-NS Project scope. Specific criteria are defined that identify which types of baseline changes need to be approved by the different approval bodies. The significance of the change determines the level or approval body at which the decision is made with regard to a proposed change.

The CWS-NS Project uses three approval bodies for changes:

1. The Change Management Committee (CMC) at the Project Manager/Program Manager level as the initial entry point for consideration of all formal change requests. The CMC has the authority to approve changes that do not exceed the delegated (in the charter) tolerance range for scope, schedule and cost. Changes that exceed the delegated tolerance ranges must be escalated to the Change Control Board for broader management and stakeholder approval.
2. The Change Control Board (CCB) comprised of managers representing the CWS-NS Project stakeholders (counties, OSI, and CDSS, including the project sponsor) consider and approve changes that exceed the CMC delegated tolerance range for scope, schedule and cost. Changes that modify any objective of the project or exceed or modify any condition of the charter must be escalated to the Project Control Board.
3. The Project Control Board (PCB) comprised of executive management for the CWS-NS Project including OSI and CDSS review and disposition change requests that cannot be resolved at the lower levels or are changes to the CWS-NS Project Charter scope and funding guidelines.

Change requests submitted to the approval bodies include an analysis of the change that includes the description, justification, impact, alternatives considered, and the recommendation for implementing the change. Approved change requests are documented, communicated, and referred for implementation. Configuration Management processes are implemented to protect the integrity of the project artifacts (baselines).

For additional information on the change control process refer to CWS-NS Project Change Management Plan.

4.3 Cost Control

The CWS-NS Project manages and controls project costs by establishing approved budget baselines, monitoring actual expenditures against those baselines, and securing approvals for changes to those baselines. Budget baselines are established in the amount approved by State and federal control agencies. These baselines are then monitored by project management and compared to actual expenditures. An annual reconciliation is also performed that includes a comparison of actual to planned expenditures as well as actual expenditures against the approved budget baseline.

During the project lifecycle the project budget is likely to be changed many times. Some changes may be major changes due to scope or schedule changes, and others may be a movement of budget between the budget year cost categories. Any changes to approved baselines are submitted through the project change management process for internal approval. If the change meets specified thresholds, a State or federal approval document may also be required.

Refer to the CWS-NS Cost Management Plan for additional information on the processes for managing costs and the approval documents needed to secure approvals for budget changes.

4.4 Schedule Control

The CWS-NS Project manages and controls the project schedule by defining activities within the scope established by the WBS, establishing schedule baselines, tracking progress of scheduled activities against those baselines, approving changes to the scheduled activities, and reporting status on activities. The Project Management team maintains the project schedule and reports status to the Project Manager and project staff. Processes are defined in the CWS-NS Project Schedule Management Plan for developing the schedule, establishing a baseline, obtaining updates for maintaining the schedule, requesting changes to the schedule baselines, reporting status on scheduled activities, and schedule close-out.

The project schedule is maintained using a biweekly update cycle; however, the status of scheduled activities is discussed each week in one of several bi-weekly meetings:

- CWS-NS Schedule Status Meeting (bi-weekly, after schedule update)
- CWS-NS Project Team Meeting (bi-weekly)
- CWS-NS Project Status Meeting (bi-weekly, alternating with team meeting)
- Executive Management Meeting (monthly)

To support the discussion of the project schedule at these meetings, the project prepares a 30-day Look Ahead report that identifies upcoming activities and those activities that have not been completed as scheduled. In addition, the project prepares a bi-weekly Schedule Analysis Report for the Project Manager that reports on the schedule as of the last bi-weekly update. This report discusses significant changes to project milestones or significant recent delays in scheduled activities. The report also identifies activities which have been completed in the last update cycle, are late, or were not started as scheduled.

Two levels of schedule control are in place on the CWS-NS Project. The first level of schedule control is executed by the Task Lead. As detailed in the Schedule Management Plan, the Task Lead is responsible for a task or a group of tasks. The Task Lead maintains control of task definition, sequencing, start and finish dates, and resource assignments where start and finish dates do not affect formal milestone dates as reported in control agency documents. The second level of schedule control applies where start and finish dates of tasks affect formal milestone dates. Under these circumstances, the formal project change request process is followed. The specific criteria for submitting a formal change request that impacts schedule are listed below.

- New tasks or deliverables that cause baselined key milestones (milestones documented in project approval documents) to slip.
- Schedule slip in baselined key milestones of 6 or more days.
- Changes to the project scope, in terms of project activities to be performed.
- A new constraint that impacts the delivery of the project as planned.
- A key resource is redirected with no replacement.
- A key resource is changed with a less qualified resource and the schedule is impacted.

For additional information on the schedule tracking, control, and reporting processes refer to CWS-NS Project Schedule Management Plan.

4.5 Performance Reporting

The project performance reporting will be accomplished through established status meetings, reports, and internal project tracking systems. The following are a list of mechanisms used that support performance reporting:

- CWS-NS Project Team Meeting (bi-weekly)
- CWS-NS Project Status Meeting (bi-weekly, alternating with team meeting)
- Executive Management Meeting (monthly)
- CTA Monthly Status Report
- Independent Project Oversight Report (IPOR)
- Project Oversight Consultant Monthly Status Report
- Verification and Validation (V&V) Monthly Status Report
- Consulting Service Providers Monthly Status Reports
- CWS-NS Project Risk Status Report (weekly)
- Overdue Action Items List (biweekly)
- MTSII Issue and Action Item Tracking System
- Risk Radar System

For more information on the meetings and reports used on the project, refer to the CWS-NS Project Governance Plan and CWS-NS Project Communication Management Plan.

4.6 Project Tools

The tools identified in Table 4.1 – Project Tools are used by the Project to manage the project. Refer to the appropriate management plan for the latest information on each tool.

Table 4.1 – Project Tools

TOOL NAME	TOOL FUNCTION	TOOL DESCRIPTION	MANAGEMENT PLAN REFERENCE(S)
Microsoft Office 2003	Word, Excel, Outlook, PowerPoint, Access	These are a collection of basic tools for general office management.	• All Plans
Microsoft Visio	Figures & Diagrams	This tool is used for development of visual aids in project documents	• All Plans
Adobe Acrobat Professional	Portable Document Format (PDF) Files	This tool is used to create reports and documents which can be viewed using the free Adobe Acrobat Reader.	• Schedule Management Plan • Issue and Action Item Management Plan • Risk Management Plan • Cost Management Plan • Staff Management Plan
Management Tracking System (MTS II)	Issue / Action Item Tracking	This is an OSI-built Access database that is used to track issues and action items.	• Governance Plan and Communication Management Plan • Issue and Action Item Management Plan
DeskSite	Document Repository	This is a repository for storing and cataloguing project documents. The CWS-NS Project utilizes the NSPdocs container in DeskSite.	• All Plans
RiskRadar (Risk Management Tool)	Access Database for tracking risks (RiskRadar)	This is an OSI-standard tool that has since been modified using an Access database to track and report on project risks.	• Risk Management Plan
Microsoft Project 2003	Schedule Planning and Tracking	This is an OSI tool that has been customized to create the project master schedule and track durations. It is not currently used to estimate resource needs or used to track actual hours spent working on project activities.	• Schedule Management Plan

TOOL NAME	TOOL FUNCTION	TOOL DESCRIPTION	MANAGEMENT PLAN REFERENCE(S)
Kovair Global LifeCycle	Requirements Management	This commercial-off-the-shelf software tool is used as the requirements repository.	• Requirements Management Plan

5 UNANTICIPATED TASKS

As the project evolves, items may arise which would cause unanticipated tasks, scope changes, or enhancements that may be beyond the original approved scope of the project. The process for addressing unanticipated tasks, scope changes, or enhancements that are beyond the scope of the original project charter will be to follow the change process described in the CWS-NS Change Management Plan. Based on priority, unanticipated tasks beyond the original approved scope will be prioritized and may be postponed until after the implementation of the CWS-NS System, unless the unanticipated task is critical to successful implementation. If the unanticipated task is critical to the success of the CWS-NS Project, then the change management process will be followed.

6 PROJECT SCHEDULE

Refer to the CWS-NS Project Schedule for the detailed overall project activities, tasks, and milestones. The high-level depiction of the major activities and milestones can be found in Appendix A, CWS-NS Project Schedule.

7 PHASE CLOSE-OUT & LESSONS LEARNED

Phase close-out & formal lessons learned are project management activities performed at the end of each project lifecycle phase to ensure the proper closure of a current lifecycle phase before proceeding to the next phase. Close-out activities include:

- Review of all goals and objectives of the phase
- Recording final status
- Closure of issues and risks related to the phase
- Review of documentation and files for archive or destruction

7.1 Conducting Formal Lessons Learned

At the close of each lifecycle phase, the project prepares a lessons learned report. This includes an analysis of project objectives achieved during the completed phase. Lessons Learned reports are imported into the OSI Best Practices WorkSite Repository for use by other projects and identifying areas for process improvement action.

7.2 Contract Close Out

The CWS-NS Project contract closeout processes will be consistent with the Project Management Institute's project closeout procedures provided in the PMBOK, including the verification that all work was completed satisfactorily. In addition, the CWS-NS will maintain records for future reference and any subsequent audits. In accordance with the California Government Code, contractor performance evaluation will be completed within the guideline of the State Contracting Manual, Section 9.08. The State contracting agency, upon contract completion, will complete and forward the contractor evaluation to the DGS. It is during this contract closeout phase that all outstanding contractual deficiencies are documented and resolved to successful completion.

The contract closeout processes used on the CWS-NS Project for each contract include performing a contract close out for each of the following items:

- Contract final reports
- Contractor evaluation
- Invoices and disencumbering funds
- Archiving contractor records

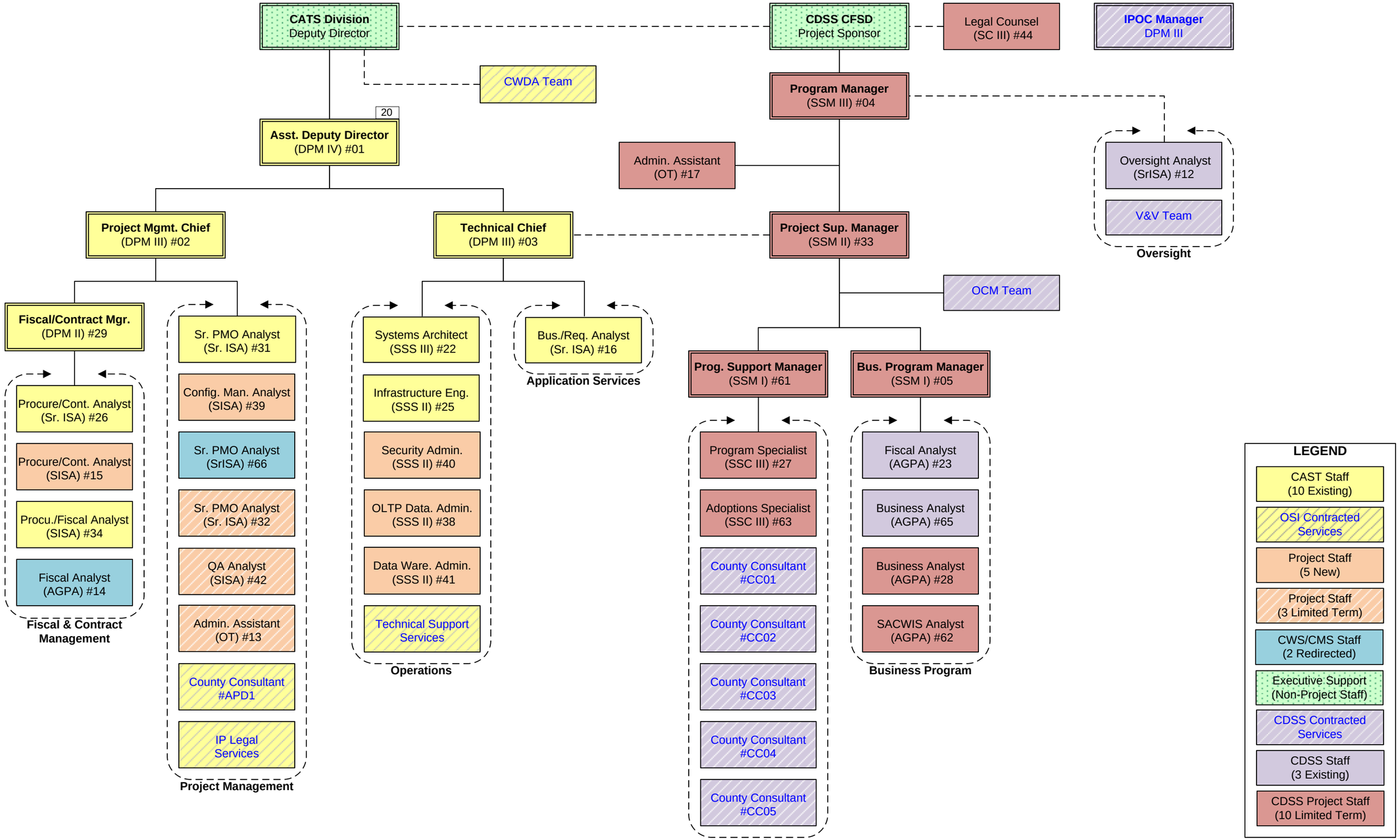
7.3 Administrative Closure

Administrative closure is the process of preparing closure documentation of the project deliverables for the customer as well as taking other administrative actions to ensure that the project and its assets are redistributed. Administrative closure includes the following activities:

- Financial closure and audit – completing and terminating the financial and budgetary aspects of the project being performed
- Archiving- creating and storing a hard and/or soft copy of all documentation related to the project
- Personnel and facilities – reassignment and reallocation of personnel and equipment that have been used during the project

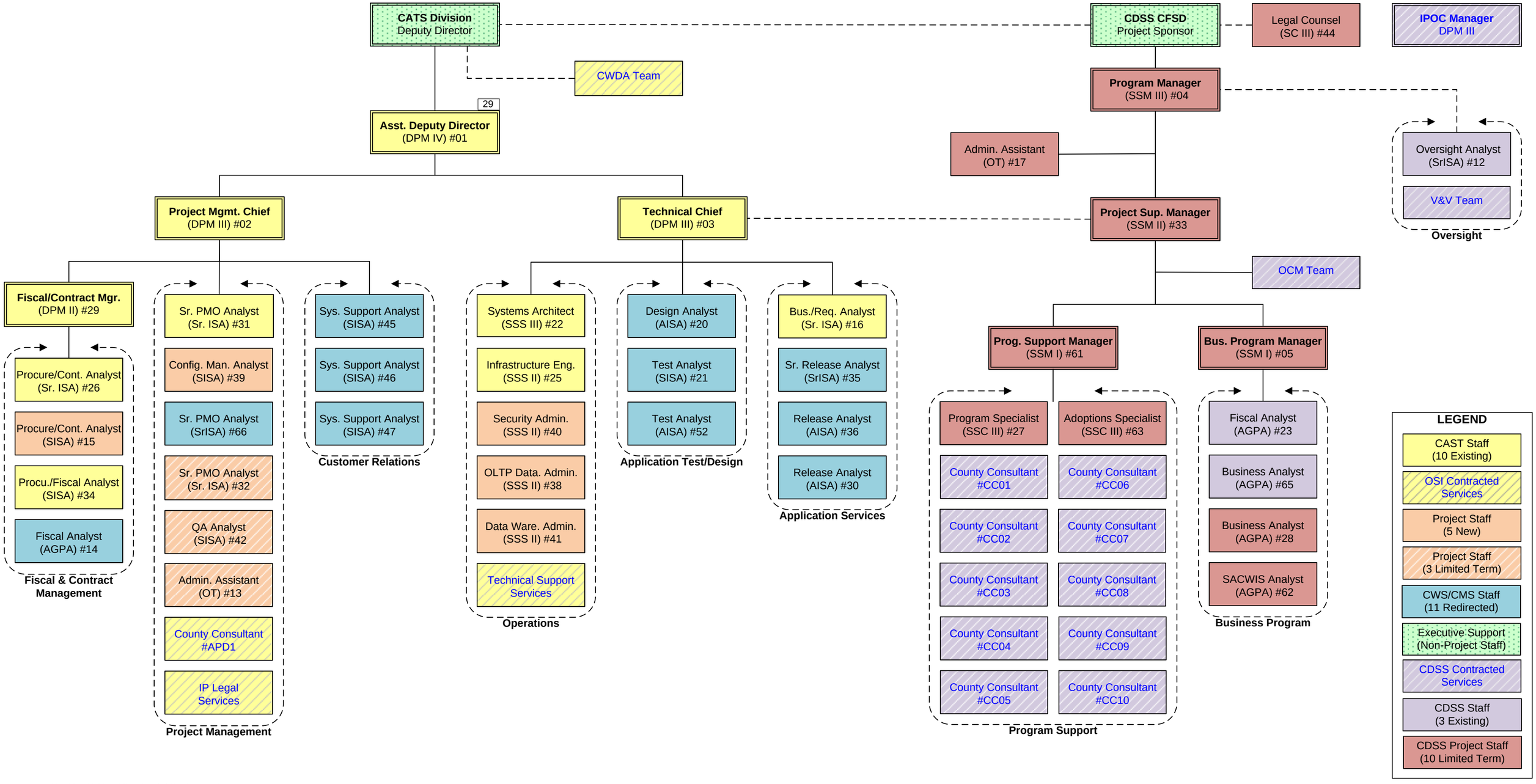
CHILD WELFARE SERVICES NEW SYSTEM (CWS-NS)

Planning & Procurement



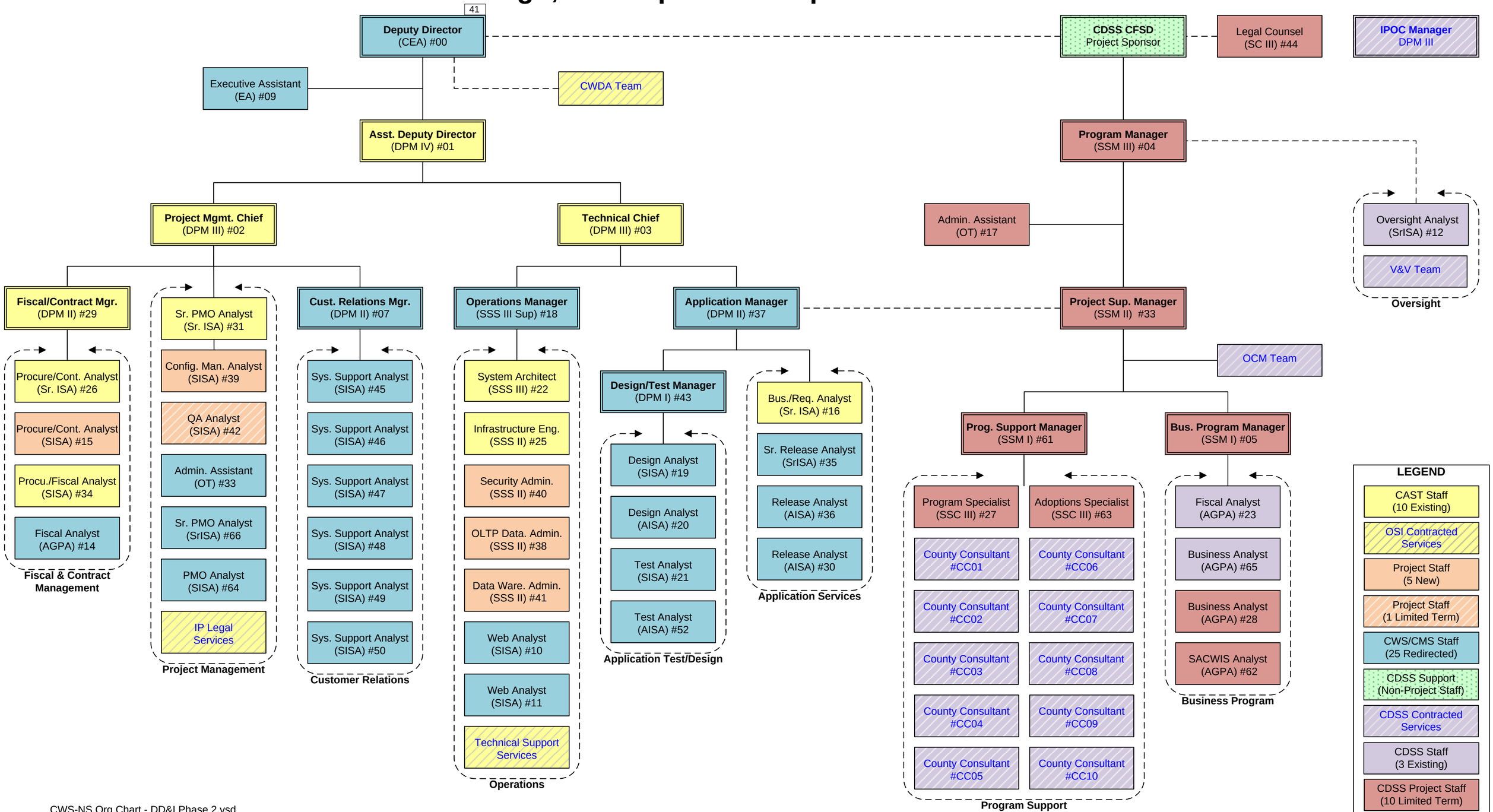
CHILD WELFARE SERVICES NEW SYSTEM (CWS-NS)

Design, Development & Implementation – Phase 1



CHILD WELFARE SERVICES NEW SYSTEM (CWS-NS)

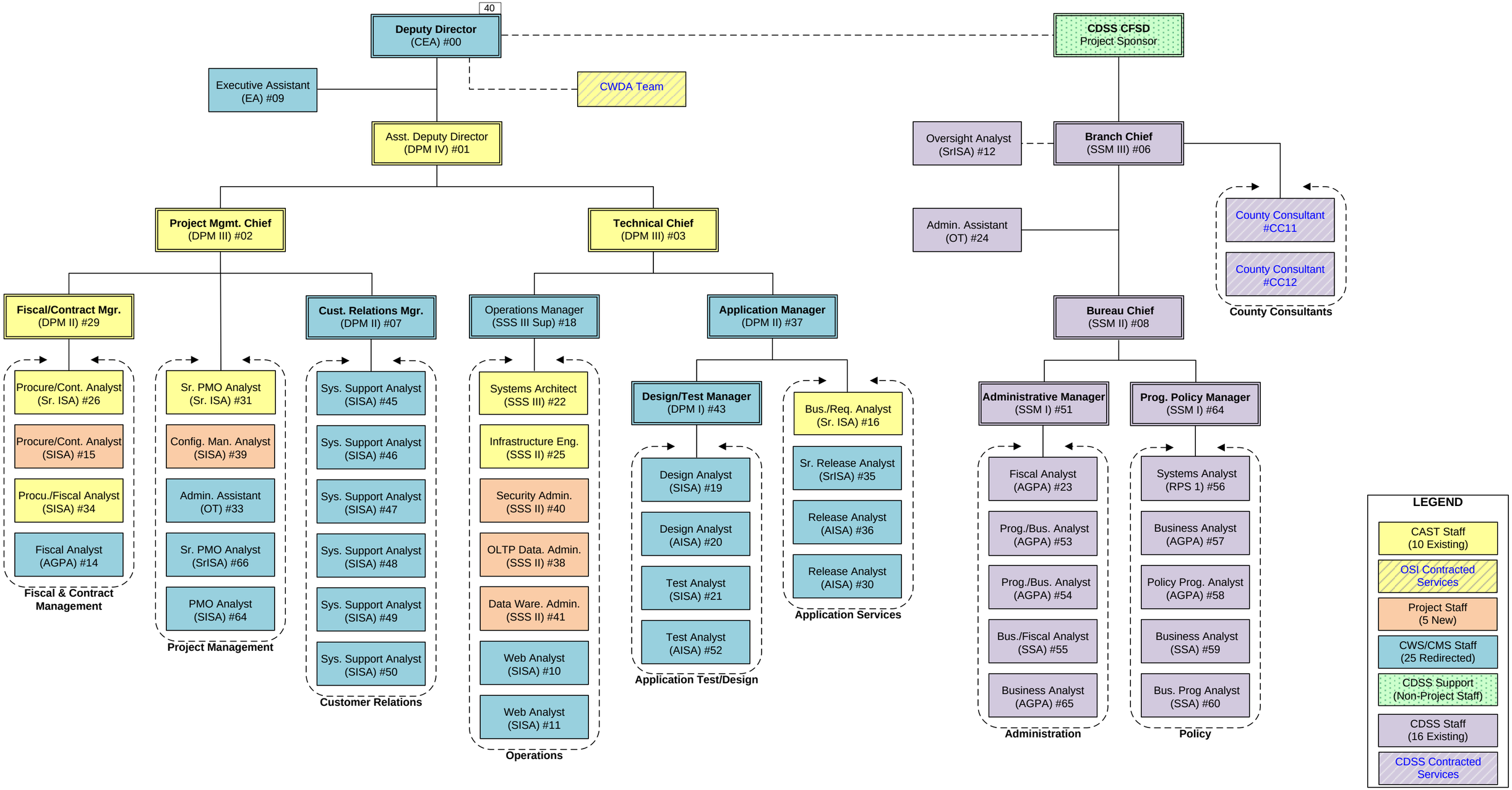
Design, Development & Implementation – Phase 2



CWS-NS Org Chart - DD&I Phase 2.vsd

CHILD WELFARE SERVICES NEW SYSTEM (CWS-NS)

Maintenance & Operations



CWS-NS Project Roles and Responsibilities

Introduction

This document provides detailed roles and responsibilities information about each OSI and CDSS Project Office staff position.

The information provided for each position includes the following items:

- **Position Title**: the name or working title of the position on the CWS-NS Project
- **Position ID:** a unique CWS-NS Project identifying number for the position
- **State Position Number:** the State position number used to identify the position
- **State Classification:** the State classification name used for the position
- **Position Start Date**: the month/year in which the position begins
- **Position End Date**: the month/year in which the position terminates if limited term, otherwise the date as shown as “permanent”
- **Resource Organization:** the organization to which this position belongs (OSI, CDSS, County, etc.), described to the division level
- **Organizational Group/Team:** the CWS-NS Project group or team to which the position belongs (per organization chart)
- **Core Team:** An indicator used to identify resources that are resource-leveled in the project schedule
- **Resource Category:** a classification of the position by purpose (e.g., Staff, Support, Governance, or Oversight)
- **Position Description:** a brief description of the position and its responsibilities
- **Activities:** a descriptive list of specific responsibilities of the position

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CDSS Project Sponsor

Position Title	CDSS Project Sponsor (CDSS CPFS Branch Chief)		
Position ID	N/A	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CDSS Management		
Core Team	No	**Resource Category**	Governance
Position Description	The CDSS Children and Family Services Division is the sponsor for the CWS-NS Project. The Child Protection and Family Support (CPFS) Branch Chief, as the Program Sponsor, will ensure that CWS-NS-related program policies are addressed, that the CWS-NS Project meets state and federal requirements and is completed according to scope, schedule, and budget.		
Activities	• Maintains an executive management role in all aspects of system development including promoting and marketing the system to viable stakeholders (including county partners). • Approves selected CWS-NS Project documents. • Communicates with project status with CDSS executives. • Communicates and maintains stakeholder relationships which support the outcomes of the project. • Ensures timely executive-level decisions are made. • Champions the project goals. • Represents the project to all stakeholders including CWDA, federal and state agencies and the State Legislature regarding CWS-NS program policy issues. • Ensures resources for the project are provided. • Serves as Chair for the Executive Board.		

CDSS Program Manager

Position Title	CDSS Program Manager		
Position ID	04	**State Position Number**	
State Classification	Staff Services Manager III (SSM III)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Support		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS CWS-NS Program Manager reports to the Project Sponsor; represents the Sponsor on project management, planning, tasks, and decision issues; and is part of the CWS-NS Project Management team. On an as needed basis, represents the Project Sponsor in communications with the federal government, counties, and other stakeholders. The Program Manager works with the CATS Division Deputy Director to plan, direct, and oversee the day-to-day activities of CDSS staff assigned to the CWS-NS Project. The Program Manager works directly with the other project managers to ensure project success. The Program Manager works with the Assistant Deputy Director to coordinate program-related efforts and to resolve inter-branch and inter-project issues and acts as a business liaison to the OSI CWS-NS Project.		
Activities	• Ensures that program-related contract or funding decisions are made and communicated to OSI, CDSS, and ACF as needed. • Develops and maintains collaborative relationships with the OSI CWS-NS Project Team, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Monitors project activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk. • Coordinates CDSS tasks, participates as part of the CWS-NS project management team in briefings to the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed.		

Position Title	CDSS Program Manager
Activities	• Manages the review and evaluation of the deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance. • Manages and resolves issues related to the CWS-NS Solution and the activities to develop, implement, operate, and maintain the CWS-NS system. • Coordinates with the CDSS CWS-NS Program Managers and the Systems Integrator to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the CWS-NS system.

CDSS Administrative Assistant

Position Title	CDSS Administrative Assistant		
Position ID	17	**State Position Number**	
State Classification	Office Technician (OT)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Administrative Assistant is responsible for performing administrative tasks in support of the CWS-NS Program Manager. The Administrative Assistant also provides general administrative support to the CDSS Program Support Team for office supplies, equipment, and clerical support.		
Activities	• Maintains internal CDSS Branch systems to screen, prioritize, and organize incoming correspondence and other sensitive documentation. This includes maintaining an automated correspondence control system. • Coordinates activities when other organizations are involved. • Prepares and proofreads documents for signature of the Director, Deputy Director, Assistant Deputy Director, Branch Chief, and other Branch staff. • Prepares original correspondence pertaining to CWS-NS inquiries, ensuring appropriate Department format and guidelines are followed. • Schedules meetings, and reserves locations for CWS-NS meetings • Works with OSI to coordinate schedules and arrange meetings, transfer of documents, etc. • Makes travel arrangements and processes travel claim documents for the CDSS CWS-NS staff, including maintaining a file of travel documents and expenses. • Develops, processes, and maintains records related to the recruitment, hiring, attendance, and other personnel related processes for CDSS CWS-NS staff.		

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CDSS Project Support Manager

Position Title	CDSS Project Support Manager		
Position ID	33	**State Position Number**	
State Classification	Staff Services Manager II (SSM II)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Support		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Project Support Manager is responsible for managing the Business and Program Support units, and coordinating all aspects of program input needed to support system development and implementation. Will also support all aspects of design, development and all CWS-NS Project activities and decision making. The Organizational Change Management Team (OCM) reports directly to the Project Support Manager.		

Position Title	CDSS Project Support Manager
Activities	• Supervises CDSS managers who manage staff and county contracted consultants charged with responsibilities related to the planning, development and implementation of CWS-NS • Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements. • Briefs the CDSS sponsor, as needed, and engages the Oversight Committee to report CWS-NS Project status and issues, request assistance, receive feedback, and orient them to project requirements and needs. • Provides analysis and recommendations to the CWS-NS Program Manager on problems and issues as they arise; attends and participates in all state and county input sessions. • Provides regular feedback to state and county program staff on decisions and issue resolution. • Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in requirements definition, requirements validation, and system design sessions. • Coordinates all OCM interactions and supports OCM project related plans, contracting and administration. • Provides decision making authority as needed related to OCM and project tasks. • Conducts stakeholder communications sessions and responds to inquires from governance bodies • Assists in the review and evaluation of the RFP requirements, change requests, deliverables, and findings and recommendations to project management.

CDSS Legal Counsel

Position Title	CDSS Legal Counsel		
Position ID	44	**State Position Number**	
State Classification	Staff Counsel III (SC III)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CDSS Legal, CWS-NS Project		
Organizational Group/Team	CDSS Legal		
Core Team	No	**Resource Category**	CDSS Legal
Position Description	The CDSS Legal Counsel is responsible for providing legal advice, opinions, and support to the CWS-NS Project and CDSS Operations. The CDSS Legal Counsel helps ensure that all phases of CWS-NS planning, procurement, and contracting comply with State and federal law.		
Activities	• Advises the Program Sponsor, CWS-NS Assistant Deputy Director, CWS-NS Program Manager, and Acquisition Manager regarding statutory, regulatory, and program requirements impacting the CWS-NS Project or CDSS Operations. • Assists and supports development of procurement documents, contracts, and communications. • Advises the Project Sponsor, CWS-NS Assistant Deputy Director, Operations Manager, and Acquisitions Manager regarding the application of contract terms and conditions and the vendor's compliance therewith.		

CDSS Business Program Manager

Position Title	CDSS Business Program Manager		
Position ID	05	**State Position Number**	
State Classification	Staff Services Manager I (SSM I)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CDSS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Business Program Manager is responsible for coordinating and directing CDSS tasks related to the development of the CWS-NS system and for management of the multi-disciplinary tasks assigned to the members of this CDSS CWS-NS Planning and Development Unit.		
Activities	• Supervises CDSS fiscal analyst, project support analyst, business analyst and CWS program social service consultant staff who are charged with responsibilities related to the planning, development and implementation of CWS-NS. • Develops and reviews current CDSS contract, fiscal, program policy and business needs and makes recommendations to ensure that the CWS-NS Project meets these requirements. • Provides expertise, reviews, and implements program policy requirements related to the method of data entry; and maintains and revises these requirements as program requirements, policy, and technology changes occur. • Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Briefs the CDSS Program Manager and engages the project governing bodies related to reporting CWS-NS Project status and issues, requesting assistance, receiving feedback, and introducing project requirements and needs.		

Position Title	CDSS Business Program Manager
Activities	• Provides analysis and recommendations to the CWS-NS Program Manager on problems and issues as they arise; attends and participates in all state and county input sessions. • Provides regular feedback to state and county program staff on decisions and issue resolution. • Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in requirements definition, requirements validation, and system design sessions. • Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance. • Supports all procurement activities associated with the project.

CDSS Program Support Manager

Position Title	CDSS Program Support Manager		
Position ID	61	**State Position Number**	
State Classification	Staff Services Manager I (SSM I)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CDSS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS CWS-NS Program Support Manager is responsible for ensure program information and program expertise is provided to support the development, design and delivery of the CWS-NS.		
Activities	• Ensures that program-related decisions are made and communicated to OSI, CDSS, and ACF as needed. • Develops and maintains collaborative relationships with the OSI, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Monitors project activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk. • Coordinates CDSS tasks, participates as part of the CWS-NS project management team meetings with the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed. • Manages and resolves issues and the activities to develop, implement, operate, and maintain the system. • Coordinates with the CDSS Program Managers and OSI to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the system.		

CDSS Oversight Analyst

Position Title	CDSS Oversight Analyst		
Position ID	12	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	CDSS, ISD, OSO, CWS-NS Project		
Organizational Group/Team	Oversight Team		
Core Team	No	**Resource Category**	Oversight
Position Description	The CDSS Oversight Analyst is responsible for providing project oversight of external contractors performing Independent Verification and Validation (IV&V) for the CWS-NS Project; as well as participating in project artifact reviews, change management meetings, risk and issues sessions and activities that result in decisions on project policy and/or process.		
Activities	• Represents CDSS independent Oversight perspective and supports CDSS Program with policy related to oversight functions at all project meetings, issue resolution and risk mitigation, executive steering committee meetings, Control Agency meetings and external stakeholder meetings; and reports to the CDSS Chief Technology Officer (CTO). • Ensures that effective and efficient functional management is in place to facilitate application of IV&V to all phases of the CWS NS project. • Communicates verbally and in writing, recommended solutions to Oversight findings and to project risks or issues to CDSS project Sponsor, OSI, Control Agencies, and external stakeholders. • Escalates to CDSS project Sponsor critical oversight findings not agreed to by source organizations. • Addresses concerns from Federal and State on IV&V requirements and compliance with industry standard practices, processes, and procedures. • Reviews and comments on project documentation prior to submission to Federal /State Control Agencies. • Works with DGS through the process for the procurement of IV&V contractors.		

Position Title	CDSS Oversight Analyst
Activities	• Performs management over all IV&V daily activities, including performance, review and approve deliverables, prepare and approve vendor invoices for payment; coordinate vendor performance review. Meets regularly with IV&V consultants on project status. • Serves as the central point of contact for communications between the contractors and OSI, CDSS project Sponsor, Federal and State control agencies and external stakeholders. • Provides assistance to the Program Manager and Project Sponsor by providing recommendations and resolutions to risks, issues or findings. Communicates regularly with Program Manager to ensure smooth operations of project and risk management.

CDSS Fiscal Analyst

Position Title	CDSS Fiscal Analyst		
Position ID	23	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The AGPA, Fiscal Analyst is responsible for performing tasks in support of the cost management activities of the CWS-NS Project on behalf of CDSS and the program. The Fiscal Analyst ensures the project costs are in keeping with the requirements set for in associated project contracts and also ensures funding mechanisms for the project are provided.		
Activities	• Ensures all invoices are processed and paid. Maintains expense tracking sheets. • Supports the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD) and supports OSI in the development of all necessary documentation as needed. • Works with CDSS Budget and Fiscal Policy to validate all fiscal and budget documents that are required for external distribution including at a minimum Federal and State control agencies. • Prepares and coordinates fiscal input to all Inter-agency Agreements and Memoranda of Understanding. • Monitors the CWS-NS Project budget including tracking actual expenditures to budget, reviewing and validating all expenditures that are charged to the CWS-NS budget, matching CALSTARS reports to expenditure approvals, and performing periodic expenditure projections. • Responsible for coordination of all contract and supporting documentation. • Responsible for federal fiscal reporting and audits related to initial and on-going federal SACWIS compliance reviews.		

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CDSS Program Specialist

Position Title	CDSS Program Specialist		
Position ID	27	**State Position Number**	
State Classification	Social Services Consultant III (SSC III)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS CWS Programs Specialist is responsible for providing child welfare and probation program information as needed to support planning and Procurement, design, development, and implementation of the system.		
Activities	• Works collaboratively with County Consultants and Program Team to support the development of the CWS-NS requirements through technical development. • Supports the planning, development and implementation of CWS-NS. • Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements. • Provides program policy requirements related to the method of data entry, as well as maintains and revises those requirements as program, policy, and technology changes occur. • Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies, as needed, to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions. • Provides regular feedback to state and county program staff on decisions and issue resolution.		

Position Title	CDSS Program Specialist
Activities	• Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in the development and review of Adoptions related requirements definition, requirements validation, and system design sessions. • Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.

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CDSS Adoptions Specialist

Position Title	CDSS Adoptions Specialist		
Position ID	63	**State Position Number**	
State Classification	Social Services Consultant III (SSC III)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Adoptions Specialist is responsible for providing adoption program input as needed to support technical developments.		
Activities	• Works collaboratively with County Consultants and Program Team to support the development of the CWS-NS requirements through technical development. • Supports the planning, development and implementation of CWS-NS. • Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements. • Provides program policy requirements related to the method of data entry, as well as maintains and revises those requirements as program, policy, and technology changes occur. • Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies, as needed, to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions. • Provides regular feedback to state and county program staff on decisions and issue resolution.		

Position Title	CDSS Adoptions Specialist
Activities	• Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in the development and review of Adoptions related requirements definition, requirements validation, and system design sessions. • Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.

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CDSS Business Analyst

Position Title	CDSS Business Analyst		
Position ID	28	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	July 2013	**Position End Date**	September 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The AGPA, Business Analyst is responsible for performing tasks in support of the project, program and stakeholder activities associated with the CWS-NS Project on behalf of CDSS and the CWS program. The Business Analyst ensures the project schedule, communications, change management and reporting requirements are being met.		
Activities	• Position will be responsible for coordinating all project communications to stakeholders, specifically related to all governing bodies and management. • This position will support all organizational change management activities. • Position will coordinate with all CDSS program areas to ensure all SACWIS requirements are being met in the development of the new system. This position will support the business needs of PIAC, TAC, OSC and any other governance bodies developed and associated with supporting the project. • Position will research all program aspects of the system's design and development and provide support to the project in response of CDSS policy requirements. • This position will support the development of all federal reporting documents such as annual reports and Children and Family Services Reviews. • Position will be responsible for all CDSS communication meetings related to project status. • Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions.		

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Activities	• Provides regular feedback to state and county program staff on decisions and issue resolution. • Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in requirements definition, requirements validation, and system design sessions. • Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.

CDSS Business Analyst

Position Title	CDSS Business Analyst		
Position ID	65	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The AGPA, Business Analyst is responsible for performing tasks in support of the project, program and stakeholder activities associated with the CWS-NS Project on behalf of CDSS and the CWS program. The Business Analyst ensures the project schedule, communications, change management and reporting requirements are being met.		
Activities	• Position will be responsible for coordinating all project communications to stakeholders, specifically related to all governing bodies and management. • This position will support all organizational change management activities. • Position will coordinate with all CDSS program areas to ensure all SACWIS requirements are being met in the development of the new system. This position will support the business needs of PIAC, TAC, OSC and any other governance bodies developed and associated with supporting the project. • Position will research all program aspects of the system's design and development and provide support to the project in response of CDSS policy requirements. • This position will support the development of all federal reporting documents such as annual reports and Children and Family Services Reviews. • Position will be responsible for all CDSS communication meetings related to project status. • Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions.		

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Activities	• Provides regular feedback to state and county program staff on decisions and issue resolution. • Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage. • Participates in requirements definition, requirements validation, and system design sessions. • Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.

CDSS SACWIS Analyst

Position Title	SACWIS Analyst		
Position ID	62	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The AGPA, SACWIS Analyst is responsible for performing tasks in support of reporting and contract activities of the CWS-NS Project on behalf of CDSS and the program. The Analyst ensures the federal project documentations are reviewed and timely executed in a timely manner to align with the state and federal reporting requirements. Provides SACWIS program-related expertise.		
Activities	• Responsible for the submission and supports the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD) and supports OSI in the development of all necessary documentation as needed. • Provides SACWIS program-related expertise • Provides support to the project by ensuring approvals as necessary. • Responsible for the coordination of the Annual ACF site visit. • Monitors the CWS-NS Project correspondence and reporting including AFCARS, NCANS and NYTD. • Responsible for coordination of all federal project document and plan reviews and ensures timely approvals. • Provide management support to ensure timely and informed decision making.		

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CDSS Branch Chief

Position Title	CDSS Branch Chief		
Position ID	06	**State Position Number**	
State Classification	Staff Services Manager III (SSM III)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS CWS-NS Branch Chief reports to the Project Sponsor; represents the Sponsor on system management tasks, and decision issues; and is part of the CWS-NS Project Management team and decision-making body. The Branch Chief works with the CATS Division Deputy Director to plan, direct, and oversee the day-to-day activities of the CWS-NS M&O.		
Activities	• Ensures that program-related contract or funding decisions are made and communicated to OSI, CDSS, and ACF as needed. • Develops and maintains collaborative relationships with the OSI, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Monitors project activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk. • Coordinates CDSS tasks, participates as part of the CWS-NS project management team meetings with the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed. • Manages the review and evaluation of the deliverables of the CWS-NS and ensures delivery of releases. • Manages and resolves issues and the activities to develop, implement, operate, and maintain the system. • Coordinates with the CDSS Program Managers and OSI to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the system.		

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CDSS Bureau Chief

Position Title	CDSS Bureau Chief		
Position ID	08	**State Position Number**	
State Classification	Staff Services Manager II (SSM II)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS CWS-NS M&O Program Manager reports to the Project Sponsor; represents the Sponsor on M&O management, tasks, and decision issues; and supports the development of the CWS-NS Project. The Program Manager works with the CATS Division Deputy Director to plan, direct, and oversee the day-to-day activities of CDSS staff assigned to the CWS-NS M&O. The Program Manager works with the Assistant Deputy Director to coordinate program-related efforts and to resolve inter-branch and inter-project issues and acts as a business liaison to OSI.		
Activities	• Ensures that program-related contract or funding decisions are made and communicated to OSI, CDSS, and ACF as needed. • Develops and maintains collaborative relationships with the OSI, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized. • Monitors M&O activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk. • Coordinates CDSS tasks, participates in briefings to the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed.		

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CDSS Administrative Assistant

Position Title	CDSS Administrative Assistant		
Position ID	24	**State Position Number**	
State Classification	Office Technician (OT)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Administrative Assistant is responsible for performing administrative and clerical tasks in support of the CWS-NS Branch.		
Activities	• Maintains internal CDSS Branch systems to screen, prioritize, and organize incoming correspondence and other sensitive documentation. This includes maintaining an automated correspondence control system. • Coordinates activities when other organizations are involved. • Prepares and proofreads documents for signature of the Director, Deputy Director, Assistant Deputy Director, Branch Chief, and other Branch staff. • Prepares original correspondence pertaining to CWS-NS inquiries, ensuring appropriate Department format and guidelines are followed. • Schedules meetings, and reserves locations for CWS-NS meetings • Works with OSI to coordinate schedules and arrange meetings, transfer of documents, etc. • Makes travel arrangements and processes travel claim documents for the CDSS CWS-NS staff, including maintaining a file of travel documents and expenses. • Develops, processes, and maintains records related to the recruitment, hiring, attendance, and other personnel related processes for CDSS CWS-NS staff.		

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CDSS Administrative Manager

Position Title	CDSS Administrative Manager		
Position ID	51	**State Position Number**	
State Classification	Staff Services Manager I (SSM I)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Administrative Manager is responsible for coordinating and directing CDSS tasks related to the M&O activities of the system and for management of the multi-disciplinary tasks assigned to the members of the Administrative Support Unit.		
Activities	• Supervises CDSS analysts and administrative support staff charged with responsibilities related to M&O. • Develops and reviews current CDSS contract, fiscal, program policy and business needs and makes recommendations to ensure M&O meets requirements. • Develops and maintains a collaborative relationship with OSI, CDSS program Divisions, counties and other governmental agencies. • Briefs the CDSS M&O Program Manager and engages the Oversight Committee to report status and issues. • Provides analysis and recommendations to the M&O Program Manager on problems and issues as they arise; attends and participates in all state and county input sessions. • Provides regular feedback to state and county program staff on decisions and issue resolution. • Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the system; develops all county Letters or Information Notices which relate to system usage.		

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CDSS Program Policy Manager

Position Title	CDSS Program Policy Manager		
Position ID	64	**State Position Number**	N/A
State Classification	Staff Services Manager I (SSM I)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Program Policy Manager reports to the CWS-NS M&O Program Manager and is responsible for ensuring program support to the M&O of the system and for management of the multi-disciplinary tasks assigned to the members of the Program Policy Unit.		
Activities	• Ensures that State and Federal regulatory and programmatic needs are addressed including; title IV-E, IV-D, Statewide Automated Child Welfare Information System (SACWIS), Children and Family Services Reviews (CFSR), Adoption and Foster Care Reporting System (AFCARS) , National Youth in Transition Database (NYTD) and National Child Abuse, Neglect Data System (NCANDS), State Administrative Manuals (SAM) and Statewide Information Management Manual (SIMM). • Develops and maintains collaborative relationships with the OSI Project Team, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project. • Monitors release activities, plans, schedules and budgets; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk. • Oversees the day to day activities of CDSS staff assigned to the project. • Participates in collaborations and briefings with system interface partner agencies.		

Position Title	CDSS Program Policy Manager
Activities	• Coordinates CDSS tasks, participates as part of the project management team in briefings to the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed. • Manages and resolves issues related to the system and the activities to develop, implement, operate, and maintain the system.

CDSS Program/Business Analyst

Position Title	CDSS Program/Business Analyst		
Position ID	53	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Program/Business Analyst is responsible to ensure that all aspects of CWS-NS M&O operations: scope, schedule, and budget are being properly executed and reported.		
Activities	• Participates in the development and review of all administrative documents, including contracts, Budget Change Requests and Advance Planning Documents. • Develops processes to ensure that all documents are reviewed by CDSS, required governmental agencies, and ACF. Serves as the point person to coordinate ongoing correspondence to ACF on issues. • Provides analyses and recommendations to management on issues and problems as they arise. • Acquires and reports all CDSS expenditures. • Prepares all CDSS budget change documents as required.		

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CDSS Program/Business Analyst

Position Title	CDSS Program/Business Analyst		
Position ID	54	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Program/Business Analyst is responsible to ensure that all aspects of CWS-NS M&O operations related to budget, communication and schedule are properly executed and reported.		
Activities	• Work closely with manager to ensure that the M&O operations are being effectively and efficiency managed, organized, resourced. • Ensuring communication with stakeholders and users is consistent with goals of M&O operations. • Analyze and review all release schedules, reports and documentation to ensure that they appropriately address and are in keeping with the goals and objectives. • Provides analysis and recommendations to the CDSS management on problems and issues as they arise. • Attends and participates in all state and county input sessions.		

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CDSS Business/Fiscal Analyst

Position Title	CDSS Business/Fiscal Analyst		
Position ID	55	**State Position Number**	
State Classification	Staff Services Analyst (SSA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The CDSS Business/Fiscal Analyst is responsible to ensure that all aspects of CWS-NS M&O operations related to budget, contracts, stakeholder relations and communication are properly executed and reported.		
Activities	• Development of contracts associated with various CWS-NS projects; coordination, monitoring and tracking of all Branch contracts; communication with vendor(s) to ensure adherence and compliance to contract terms and conditions; provides input and direction in the development and identification of processes and timelines to ensure deliverables meet desired outcomes; review and process contract invoices; maintain ongoing contract expenditure and encumbrance spreadsheets; maintain Branch Contract log; maintain Branch and Division budget/fiscal spreadsheets. • Works with various stakeholder groups including CDSS fiscal and program branches, Office of Systems Integration (OSI) staff, and the Office of Technology (OTech) to establish consistent fiscal policies and review processes for use in analyzing county Cost Allocation Plans and Advance Planning Documents for county requests specific to SACWIS federal guidelines. • Develops Budget Change Proposals, budget Premise items, Feasibility Study Reports, Special Project Reports, Request for Proposals, Scope of Work documents, and other technology, budget, and contract related documents for the branch. • Represents the Branch at various stakeholder meetings to facilitate and ensure proactive communication and alignment to state and federal policies. Develops and makes presentations on a variety of issues affecting stakeholder groups.		

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CDSS Systems Analyst

Position Title	CDSS Systems Analyst		
Position ID	56	**State Position Number**	
State Classification	Research Program Specialist I (RPS I)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Research Program Specialist I within the Program Policy Unit is responsible for all CWS-NS data reporting functionality for the CWS-NS Branch.		
Activities	• Acts as the lead analyst for compliance with the National Child Abuse and Neglect Data System (NCANDS). • Is the designated single point of contact for all mass communications such as release notes or changes to the application from the Health and Welfare Agency Data Center (HWDC). Makes decisions regarding further distribution of such e-mail and correspondence. Acts as the gatekeeper for all CWS-NS automated bulletins and alerts.		

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CDSS Business Analyst

Position Title	CDSS Business Analyst		
Position ID	57	**State Position Number**	N/A
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the direction of a Staff Services Manager I (SSM I) the Associate Governmental Program Analyst (AGPA) in the Program Policy Unit provides technical and complex analytical assignments and consultative services on a broad range of interdisciplinary governmental issues and fiscal policies that impact state, federal and county operations specific to the functionality of the automated statewide CWS-NS.		
Activities	• Facilitates the resolution of statewide program policy questions initiated by stakeholder groups that include governance committees, county departments, vendors, and the Office of Technology Services (OTech) to ensure the efficient and effective operation of CWS-NS. Works closely with the Office of Systems Integration (OSI) who provides direction and oversight to the system vendor to ensure deliverables meet desired outcomes. Disseminates information and provides consultation to appropriate parties. • Acts as resource and point of contact for state and county CWS staff, other state departments, private vendors, and other stakeholders on program/policy issues pertaining to the maintenance and operation of the current CWS-NS. Works closely with the state's federal partner, the Administration for Children and Families, to ensure operational adherence to SACWIS guidelines. Assist departmental staff in developing familiarity and expertise with CWS-NS.		

Position Title	CDSS Business Analyst
Activities	• Participates and provides program support to various stakeholder and work groups including the CWS-NS Oversight Committee, and other program and technology advisory committees. Represents the Branch at internal and external meetings to facilitate and ensure proactive communication and alignment to state and federal policies as they related to the CWS-NS. Develops and makes presentations on a variety of issues affecting stakeholder groups. • Prepares legislative analyses and proposals affecting CWS-NS. Prepares reports and appropriate written correspondence relating to a variety of complex CWS-NS program issues and policy determinations.

CDSS Program Policy Analyst

Position Title	CDSS Program Policy Analyst		
Position ID	58	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of a Staff Services Manager I (SSM I) the AGPA performs a variety of technical and complex analytical assignments and consultative services on a broad range of interdisciplinary governmental issues and fiscal policies that include state, federal and county approval processes in support of the automated CWS-NS. This position requires oversight and authority for maintenance of system data confidentiality at all times.		
Activities	• Works with various stakeholder groups including CDSS fiscal and program branches, Office of Systems Integration (OSI) staff, and the Office of Technology (OTech) to establish consistent fiscal policies and review processes for use in analyzing county Cost Allocation Plans and Advance Planning Documents for county requests specific to SACWIS federal guidelines. • Develops Budget Change Proposals, budget Premise items, Feasibility Study Reports, Special Project Reports, Request for Proposals, Scope of Work documents, and other technology, budget, and contract related documents for the branch. • Represents the Branch at various stakeholder meetings to facilitate and ensure proactive communication and alignment to state and federal policies. Develops and makes presentations on a variety of issues affecting stakeholder groups.		

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CDSS Business Analyst

Position Title	CDSS Business Analyst		
Position ID	59	**State Position Number**	N/A
State Classification	Staff Services Analyst (SSA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the direction of a Staff Services Manager I (SSM I), the Staff Services Analyst (SSA) participates in a variety of research, analytical and consultative assignments specific to CWS programs and policies in support of the automated CWS-NS. Through working as part of a team, focused training, growth opportunities, and on-the-job development, the SSA gains skills and knowledge in the performance of these duties.		
Activities	• Participates in coordinating efforts by CDSS CWS staff to resolve program policy questions asked by the governance committees, counties, the vendor, and the Office of Technology Services (OTech) when necessary in the continuing operation of CWS-NS. Works with the Office of Systems Integration (OSI) who provides oversight of the system vendor to gather and disseminate information to ensure the efficient and effective operation of the automated system. • Serves as a program resource for federal, state and county CWS staff, and other stakeholders groups on program/policy issues pertaining to the continuing development and operation of CWS-NS. • Staff support to various committees and workgroups in support of the CWS-NS Governance Structure. Including the CWS-NS Oversight Committee, and other program and technology advisory committees. Represents CDSS at appropriate workgroup, subgroup and regional county governance meetings. • Assist with preparing legislative analyses and proposals affecting CWS-NS. Assist with preparing reports and appropriate written correspondence relating to a variety of CWS-NS program issues and policy determinations.		

Position Title	CDSS Business Analyst
Activities	• Provides administrative support for program-related activities, including but not limited to, budget change proposals, personnel actions, and contracts.

CDSS Business Program Analyst

Position Title	CDSS Business Program Analyst		
Position ID	60	**State Position Number**	N/A
State Classification	Staff Services Analyst (SSA)		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	CWS-NS Program Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the direction of a Staff Services Manager I (SSM I), the Staff Services Analyst (SSA) participates in a variety of research, analytical and consultative assignments specific to CWS programs and policies in support of the automated CWS-NS. Through working as part of a team, focused training, growth opportunities, and on-the-job development, the SSA gains skills and knowledge in the performance of these duties.		
Activities	• Participates in coordinating efforts by CDSS CWS staff to resolve program policy questions asked by the governance committees, counties, the vendor, and the Office of Technology Services (OTech) when necessary in the continuing operation of CWS-NS. Works with the Office of Systems Integration (OSI) who provides oversight of the system vendor to gather and disseminate information to ensure the efficient and effective operation of the automated system. • Serves as a program resource for federal, state and county CWS staff, and other stakeholders groups on program/policy issues pertaining to the continuing development and operation of CWS-NS. • Staff support to various committees and workgroups in support of the CWS-NS Governance Structure. Including the CWS-NS Oversight Committee, and other program and technology advisory committees. Represents CDSS at appropriate workgroup, subgroup and regional county governance meetings. • Assist with preparing legislative analyses and proposals affecting CWS-NS. Assist with preparing reports and appropriate written correspondence relating to a variety of CWS-NS program issues and policy determinations.		

Position Title	CDSS Business Program Analyst
Activities	• Provides administrative support for program-related activities, including but not limited to, budget change proposals, personnel actions, and contracts.

County Consultant – Technical

Position Title	County Consultant – Technical		
Position ID	CC01	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user/technical-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes a broad knowledge of county architecture, CWS-NS and other applications, CWS policy and procedures, data & reporting, training, APD's, helpdesk, Resource Administration, Application Administration and Security. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to RFP definition and Procurement, Gap Analysis, Data Cleanup and Change Management process changes for county/agency Information Systems groups along with participation in the development cycle, requirements definition and supporting data conversion and liaison for the Change Management processes occurring with the counties into the development cycles.		

Position Title	County Consultant – Technical
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on system gaps and needs within the planned functional and technical changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business and technical processes for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Technical
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists in the detailed design, development and implementation of CWS-NS.

Position Title	County Consultant – Technical
Activities	• As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Participates in discussions to analyze and recommends interface requirements during requirements development and validation • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of CWS business practice and procedures, CWS Application and external systems activities. • Assists with research, analysis, and development of temporary or permanent solutions for problems identified in applications.

County Consultant – Intake & Case Management

Position Title	County Consultant – Intake & Case Management		
Position ID	CC02	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Intake and Case Management practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to RFP definition and Procurement, Gap Analysis, Data Cleanup and Change Management process changes.		

Position Title	County Consultant – Intake & Case Management
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Intake & Case Management
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Intake & Case Management
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Adoptions & Financial Management

Position Title	County Consultant – Adoptions & Financial Management		
Position ID	CC03	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Intake and Case Management practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to RFP definition and Procurement, Gap Analysis, Data Cleanup and Change Management process changes.		

Position Title	County Consultant – Adoptions & Financial Management
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Adoptions & Financial Management
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Adoptions & Financial Management
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Eligibility Management & Payments

Position Title	County Consultant – Eligibility Management & Payments		
Position ID	CC04	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of CWS Eligibility Management and payments practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS and Probation policy and procedures. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to RFP definition and Procurement, Gap Analysis, Data Cleanup and Change Management process changes.		

Position Title	County Consultant – Eligibility Management & Payments
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Eligibility Management & Payments
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Eligibility Management & Payments
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Intake, Case Management, & ILP (NYTD)

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)		
Position ID	CC05	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Intake and Case Management practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS and Probation policy and procedures. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to RFP definition and Procurement, Gap Analysis, Data Cleanup and Change Management processes.		

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Probation

Position Title	County Consultant – Probation		
Position ID	CC06	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2015	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of knowledge of county/Probation architecture, CWS and other applications, Probation/Foster Care policy and procedures, data & reporting, Interfaces, training, APD's, helpdesk, Application Administration and Security practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Design, Development and Implementation phases with a primary focus related to the development cycle, requirements definition and supporting data conversion and integration of the Change Management processes occurring with the counties into the development cycles and is a liaison for the Change Management processes changes for Probation Information Systems staff.		

Position Title	County Consultant – Probation
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Participates in discussions to analyze and recommends interface requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Probation
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Probation
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Intake, Case Management, & ILP (NYTD)

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)		
Position ID	CC07	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2015	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Intake and Case Management practices including ILP (NYTD) with a broad knowledge of the use of CWS-NS and other business practices or applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Design, Development and Implementation phases with a primary focus related to the development cycle, requirements definition and supporting data conversion and integration of the Change Management processes occurring with the counties into the development cycles.		

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Intake, Case Management, & ILP (NYTD)
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training. • Other duties as assigned by CWS-NS management related to the project and county initiatives.

County Consultant – Adoptions & Family/Juvenile Court

Position Title	County Consultant – Adoptions & Family/Juvenile Court		
Position ID	CC08	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2015	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Adoptions and Family and Juvenile Court practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Design, Development and Implementation phases with a primary focus related to the development cycle, requirements definition and supporting data conversion and integration of the Change Management processes occurring with the counties into the development cycles.		

Position Title	County Consultant – Adoptions & Family/Juvenile Court
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Adoptions & Family/Juvenile Court
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Adoptions & Family/Juvenile Court
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Eligibility Management & Payments

Position Title	County Consultant – Eligibility Management & Payments		
Position ID	CC09	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2015	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Eligibility Management (all programs related to CWS and Probation) and payments practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Design, Development and Implementation phases with a primary focus related to the development cycle, requirements definition and supporting data conversion and integration of the Change Management processes occurring with the counties into the development cycles.		

Position Title	County Consultant – Eligibility Management & Payments
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Eligibility Management & Payments
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Eligibility Management & Payments
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – Financial Management & Probation

Position Title	County Consultant – Financial Management & Probation		
Position ID	CC10	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2015	**Position End Date**	Sept 2017
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Financial Management including claiming for both CWS & Probation practices with a broad knowledge of the use of CWS-NS and other applications by workers, supervisors and management, CWS policy and procedures. The skills and knowledge will be used during Design, Development and Implementation phases with a primary focus related to the development cycle, requirements definition and supporting data conversion and integration of the Change Management processes occurring with the counties into the development cycles.		

Position Title	County Consultant – Financial Management & Probation
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Financial Management & Probation
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Financial Management & Probation
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

County Consultant – M&O

Position Title	County Consultant – M&O		
Position ID	CC11	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is an executive-level and user/technical-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users.		
Activities	• Determines that the system meets federal and state requirements and county program and business needs. • Provides input on system gaps and needs within the planned functional changes and analysis and provides recommendations or issues as they arise. • Attends county regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing CDSS communication to counties regarding the system. • Assists in the development of all County Letters, Informational Notices, and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program impact, and recommends changes.		

Position Title	County Consultant – M&O
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county meetings. • Acts as liaison to both the state and counties on policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on business process improvement efforts (including impacts to CWS Program forms and reports to be produced by the system). • Identifies potential impacts; issues and risks associated with the process improvement effort to the CWS-NS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS.

County Consultant – M&O

Position Title	County Consultant – M&O		
Position ID	CC12	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	Sept 2017	**Position End Date**	Permanent
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user/technical-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users.		
Activities	• Determines that the system meets federal and state requirements and county program and business needs. • Provides input on system gaps and needs within the planned functional changes and analysis and provides recommendations or issues as they arise. • Attends county regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing CDSS communication to counties regarding the system. • Assists in the development of all County Letters, Informational Notices, and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program impact, and recommends changes.		

Position Title	County Consultant – M&O
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county meetings. • Acts as liaison to both the state and counties on policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on business process improvement efforts (including impacts to CWS Program forms and reports to be produced by the system). • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS.

County Consultant – Fiscal

Position Title	County Consultant – Fiscal		
Position ID	ADP1	**State Position Number**	N/A
State Classification	N/A		
Position Start Date	July 2013	**Position End Date**	Sept 2016
Resource Organization	CDSS, CFSD, CWS-NS Project		
Organizational Group/Team	County Consultant Team		
Core Team	Yes	**Resource Category**	County Support
Position Description	The County Consultant is a management-level and user-level consultant who is responsible for providing knowledge and experience to ensure that the CWS-NS solution is effective, economical, and efficient within the county and state child welfare and adoptions setting; consistent with program policies and business practices; supports the achievement of program outcomes; and meets the need of end users. This includes in depth knowledge of Federal, State and County Fiscal policies (CFL's) and procedures related to Federal Report submissions (APD's, APDU's, CAPE, etc) and related claiming reports for CWS Programs and EDP. The skills and knowledge will be used during Planning and Procurement and Design, Development and Implementation phases with a primary focus related to Federal Document preparation, reviews and submittals with secondary duties to assist in review of requirements related to Financial Management processes (if available).		

Position Title	County Consultant – Fiscal
Activities	• Determines that the CWS-NS system meets state requirements and county program and business needs. Assists with analysis to meet federal guidelines. • Provides input on gaps and needs within the planned functional changes and analysis and provides recommendations to the Program Specialist and CWS-NS Program Manager on programmatic problems or issues as they arise. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. • Participate in developmental testing and User Acceptance testing (county test workshops), and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Attends county, regional or stakeholder meetings to seek input or provide feedback on decisions and resolutions to issues. • Participates in ongoing State and vendor communication to counties during planning of the CWS-NS system. • Participates in the development and review of All County Letters (ACL), All County Informational Notices (ACIN), County Fiscal Letters (CFL) and training materials and reviews. • Provides suggested changes to all required document sections related to program descriptions, needs, or outcomes developed in relationship to the CWS-NS system. • Participates in discussions to analyze and recommend system requirements during requirements development and validation. • Analyzes proposed legislation in regard to program/solution impact, and recommends changes to project team.

Position Title	County Consultant – Fiscal
Activities	• Meets with stakeholders, staff, users, and appropriate persons from various private and/or governmental organizations for the purposes of requirements development (ex. Interfaces), problem identification and resolution, and inclusion of program policy and regulation, and procedure development. Travels as necessary to attend county and regional meetings. • Assists or acts as liaison to both the state and counties for communications regarding policy interpretation and implementation. • Acts in the capacity of Subject Matter Expert (SME) to the State and vendor on Organizational Change Management (BPR – Business Process Change) efforts with Child Welfare and Probation (including impacts to County or Agency Information Systems organizations). • Identifies potential impacts; issues and risks associated with the process improvement effort to the California Department of Social Services (CDSS), CMS Support Branch, county and other state agencies. • Acts in the capacity of a SME, as needed, in discussions with contracted staff and vendor staff to assist in identification of business process impacts. Reviews documentation and make recommendations. • Develops and assists in the development of all required documentation sections relating to program descriptions, needs, or outcomes developed for the CWS-NS system. • Identifies stakeholder communication needs; assists in the development of appropriate communication and identifies communication methods. • Assists in review of vendor developed training material for statewide user training. • Participates in the bid evaluation process for the CWS-NS Request for Proposal or other Procurement vehicles used by the State. • Participates and assists in the identification of issues and preparation for county and state transition from CWS-NS to CWS-NS. • Participates and assists as a business SME in the detailed design and development of CWS-NS.

Position Title	County Consultant – Fiscal
Activities	• As a CWS-NS subject matter expert, participates in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new system and/or release. • Assist State and Vendor staff in preparing answers to questions from counties concerning deployment of a release (or increment), participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction. • Research, analyze, and resolve highly complex business or technical issues raised by the counties, state and vendor as assigned. • Assist, CWS-NS project and county end users with special project initiatives assigned by CWS-NS management. Research emerging new business practices and technologies to develop new methods, criteria and/or new policies. • Provide business and technical assistance to the state in order to facilitate the generation of Federal Reporting Documents (APD's, PAPDU's etc). • Acts in the capacity of a SME, as needed, in specific business areas related to Child Welfare Services and Probation including Intake, Case Management, Adoptions, Financial Management, Eligibility, Licensing (and home approvals), Court (Family and Juvenile) Caseload Assignment, Resource Management, Administration, Data Reporting and Outcomes, Security and Other Functionality used by CWS at all levels of user responsibility in the county, managers, supervisors, workers, external users/entities, and administrators. • Acts in the capacity of a SME, to provide Business knowledge of the CWS Application and external systems, reporting and outcomes for all levels of workers and management, best practices in social work policy and procedures and training.

CATS Division Deputy Director

Position Title	CATS Division Deputy Director		
Position ID	00	**State Position Number**	
State Classification	Career Executive Appointment (CEA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	OSI Management		
Core Team	Yes	**Resource Category**	Governance
Position Description	The CATS Division Deputy Director is responsible for the successful delivery of the project office services to meet programmatic requirements defined by the CDSS CWS-NS Project Sponsor. The CATS Division Deputy Director plans and directs activities of the CWS-NS project and has overall responsibility for the CWS-NS M&O Organization and the CWS-NS CWS-NS Project.		
Activities	• Provides overall direction to the Assistant Deputy Director to ensure cohesive strategies, coordination of bridging activities, change management, and staff utilization. • Develops and manages all project processes both for new development and for sustaining maintenance, as well as manages all resources assigned to the project: state staff and vendors. • Maintains a close working relationship with the CWS-NS Project Sponsor and county stakeholders to assess business needs and for identifying and proposing automation solutions to address those needs.		

Technical Chief

Position Title	Technical Chief		
Position ID	03	**State Position Number**	
State Classification	Data Processing Manager III (DPM III)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	OSI Management		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Technical Chief plans and directs the activities of the CWS-NS Operations and Applications Teams. The Technical Chief is responsible for the definition and management of the solution scope and the requirements to be met by the CWS-NS Solution. The Technical Chief works closely with the CDSS Program Manager and team to ensure the CWS Program needs are defined and reflected in the project products, particularly the CWS-NS system and related services. The Technical Chief assists in the procurement of the CWS-NS Systems Integrator and is responsible to oversee the subsequent activities and products of the CWS-NS Systems Integrator to ensure business needs are met.		

Position Title	Technical Chief
Activities	• Assists in the procurement activities for the CWS-NS Project, including assisting in developing and maintaining contract requirements, developing proposal evaluation plans, and in developing responses to bidder questions to the RFP and in preparing RFP addenda. • Ensures the CWS-NS Systems Integrator contractual obligations are met for all technical deliverables and presents deliverable acceptance recommendations to executive management. • Works closely with the vendor partners, CDSS, and other key stakeholders for the delivery and implementation of the CWS-NS Solution within the timeframe specified in the project schedule. • Oversees the creation and maintenance of a product scope description of the CWS-NS Solution envisioned by the CWS-NS Project and its stakeholders and uses that description to monitor the development and implementation of the CWS-NS Solution. • Oversees the creation and maintenance of the CWS-NS Requirements Management Plan. • Manages the definition of the CWS-NS business requirements based on information provided by county and state staff and monitors traceability of those requirements throughout the development and implementation of the CWS-NS by the Systems Integrator. • Oversees the CWS-NS System Integrator to ensure the contractor functions according to contractual requirements pertaining to design and development of the CWS-NS technical infrastructure architecture which includes hardware environments, operating systems, networks, security, and system attributes (e.g., scalability, adaptability, openness); database management; system performance; and backup and recovery. Presents technical deliverable acceptance recommendations to executive management. • Coordinates and manages design sessions to ensure that staff function appropriately and resolve issues.

Position Title	Technical Chief
Activities	• Assists in the development of the CWS-NS Contract Management Plan for the CWS-NS Systems Integrator contract. • Manages the review and evaluation of the deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance. • Manages and resolves issues related to the CWS-NS Solution and the activities to develop, implement, operate, and maintain the CWS-NS system. • Manages risks related to the CWS-NS Solution and its related activities, including monitoring project risks and quality measures, developing and maintaining mitigation plans, monitoring execution of mitigation plans, and developing and maintaining contingency plans. • Advises the Assistant Deputy Director on technical issues and risks related to the CWS-NS Solution. • Coordinates with the CDSS CWS-NS Program Managers and the Systems Integrator to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the CWS-NS system. • Assists in the procurement activities for the CWS-NS Project to include development and maintenance of technical requirements, Bidders Library Interface Artifact, participation in proposal evaluation, and development of responses to Bidder questions regarding technology, and preparation of RFP addenda as well as other control agency documents. • Develops and mentors staff to ensure skill levels meet the needs of the CWS-NS Project. Works with the vendor consultants to ensure the transfer of technical knowledge to the project technical staff in a manner that will enable the staff to monitor the vendor's work or independently operate and maintain the CWS-NS, as necessary.

Fiscal/Contract Manager

Position Title	Fiscal/Contract Manager		
Position ID	29	State Position Number	
State Classification	Data Processing Manager II		
Position Start Date	July 2013	Position End Date	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Fiscal & Contract Management Team		
Core Team	Yes	Resource Category	Project Staff
Position Description	The Fiscal/Contract Manager plans, organizes, and directs all the activities of the CWS-NS Fiscal & Contract Management Team in accordance with State policies and procedures, applicable laws, and stakeholder requirements.		
Activities	• Provides leadership and direction to the CWS-NS Project Procurement and Contract Management staff. Oversees the CWS-NS Contract Management Plan for the Systems Integrator contract and the CWS-NS Contract Management Plan for all support services contracts. • Reviews and manages all contractual obligations to ensure that all terms and conditions of the contract are continually met. Manages the deliverable acceptance process and the deliverable tracking system. Reviews and makes recommendations to the Project Management Chief regarding payment on contractor submitted invoices consistent with the deliverable acceptance process. • Leads all contract amendments from a contract management perspective. Coordinates control agency review of all contract amendments. • Manages the CWS-NS Project procurement activities required for the development and maintenance of acquisition for information technology (IT) and non-IT good and services such as Requests for Proposal, Requests for Offer, and associated documents. These documents include contract requirements, proposal evaluation plans, and responses to the bidder community.		

Position Title	Fiscal/Contract Manager
Activities	• Serves as the Project liaison for the Acquisition Center (AC) on procurement and contracting activities. Works closely with the Project Management Chief to ensure that the CWS project team adheres to the competitive procurement process in accordance with federal and state procurement policy, regulations and laws, the Office of Systems Integration (OSI) standards, and OSI AC Best Practices. Coordinates control agency review of all procurement documents pursuant to federal and state thresholds. • Responds to complex inquiries regarding procurement activities and contract obligations and revisions. Identifies risks and issues related to contract management and procurement activities, and recommends alternatives that lead to the best solution. • Prepares and disseminates to CWS-NS project, the OSI management, and the California Department of Social Services (CDSS) information regarding procurement and contract status, compliance, and modifications. Develops procurement and contract ad hoc reports as necessary. • Develops standard evaluation plan elements and training guides for team members to evaluate and select the most technologically effective and cost-efficient solutions for the CWS-NS needs. • Manages the development of IT Procurement Plans and IT Acquisition Plans. Works with the Project Management Chief to ensure that procurements and contracts are developed in accordance with stakeholders' requirements and governance processes related to procurement and contracting activities. • Acts as the point of contact between the CWS-NS Project Office, OSI AC, and CDSS legal counsel, to ensure all legal and contractual matters are addressed efficiently and promptly. • Consults with the CDSS and OSI AC to address and resolve complicated procurement and contract issues. Advises Project Management Chief on all matters of legal consequence.

Project Management Chief

Position Title	Project Management Chief		
Position ID	02	**State Position Number**	
State Classification	Data Processing Manager III (DPM III)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	OSI Management		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Project Management Chief plans and directs the activities of the CWS-NS Fiscal & Contract, Project Management, and Customer Relations Teams. The Project Management Chief is responsible for managing the CWS-NS Project financial activities, human resource management activities, project management support activities, and other administrative activities.		
Activities	• Oversees all project-related financial activities including managing development and updates of project planning and budget documents, monitoring budget approval activities, managing the tracking of all project expenditures, and review financial reports and expenditure projections. • Oversees project management support activities, including risk management, issue and action item management, cost management, schedule management, scope and change management, and status reporting. • Oversees the creation and maintenance of the Master Project Schedule (MPS) to ensure all project activities are recorded. • Oversees the development and maintenance of the CWS-NS project management plans.		

Position Title	Project Management Chief
Activities	• Manages issues related to the administrative function, including identifying and documenting issues related to the administrative function, resolving issues and documenting issue resolution, coordinating activities and communication for issue resolution, and advising the Assistant Deputy Director on personnel issues and regulations • Manages risks related to the administrative function, including monitoring project risks and quality measures, developing and maintaining mitigation plans, monitoring execution of mitigation plans, and developing and maintaining contingency plans. • Coordinates requests for administrative services.

Operations Manager

Position Title	Operations Manager		
Position ID	18	**State Position Number**	
State Classification	Systems Software Specialist III (SSS III) Supervisory		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Operations Manager directs the activities of the CWS-NS Operations Team and provides management and leadership in the areas of technical infrastructure, information security, system operations and network administration, data management, system configuration management, and external interfaces to support acquisition and development of the State-wide CWS-NS Solution. The Operations Manager works closely with the CDSS Child Welfare Program Manager to ensure program needs are defined and reflected in the project products and deliverables pertaining to the CWS-NS System and related technical support services.		
Activities	• Manages and directs the activities of Operations Team staff responsible for the requirements, development, and maintenance of the CWS-NS solution in the areas of technical infrastructure, information security, system operations and network administration, data management and administration, system configuration management, and external interfaces. • Ensures system design meet the needs of the user community and CWS Program with the highest degree of effectiveness and efficiency. • Ensures that methods and procedures necessary to support the system technical architecture, system development, performance testing, technical training and operations of CWS-NS are established and being utilized.		

Position Title	Operations Manager
Activities	• Manages and resolves issues related to the CWS-NS System Architecture and technology and the activities necessary to operate, and maintain the CWS-NS System. Manage risks related to the CWS-NS technology to include monitoring project risks and quality measures, developing and maintaining mitigation plans, monitoring execution of mitigation plans, and developing and maintaining contingency plans. • Advises the Technical Chief on issues and risks related to the CWS-NS Technology Solution.

Assistant Deputy Director

Position Title	Assistant Deputy Director		
Position ID	01	**State Position Number**	
State Classification	Data Processing Manager IV (DPM IV)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	OSI Management		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Assistant Deputy Director plans and directs the CWS-NS Project activities and staff. The Assistant Deputy Director is responsible for the overall project management of the CWS-NS Project, and communicating with and implementing the program-related decisions of the CDSS. The Assistant Deputy Director is responsible for the management of the acquisition of project contract services, including the CWS-NS Systems Integrator, and the subsequent oversight of the performance of project contract services. These project services include project support services and CWS-NS system design, development, implementation, and ongoing maintenance and operation.		
Activities	• Plans the approach, processes, and activities necessary to achieve project objectives. • Determines and acquires the staff, equipment, and other resources needed to perform project activities. • Develops, reviews, and revises approval documents for funding. • Monitors and directs project activities. • Ensures the issue and risk management processes are effectively utilized. • Develops and maintains a collaborative relationship with CDSS to ensure appropriate programmatic input is obtained and utilized. • Conducts meetings with the OSI and CDSS agency executives to report project status and issues, request assistance, receive feedback, and orient them to project requirements and needs.		

Administrative Assistant

Position Title	Administrative Assistant		
Position ID	13	**State Position Number**	
State Classification	Office Technician (OT)		
Position Start Date	July 2013	**Position End Date**	Sept 2016
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Project Management Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Administrative Assistant is responsible for performing administrative tasks in support of the CWS-NS. The Administrative Assistant also provides general administrative support to the project team for office supplies, equipment, and clerical support.		
Activities	• Provides general office support for the CWS-NS Project Office throughout all project phases. • Provides clerical support, including attendance reporting, processing travel claims, and processing training requests. • Establishes and helps maintain CWS-NS Project documentation and communications, county implementation status reports, field implementation planning guides, county implementation task plans, project documents, and maintenance and operations guides. • Prepares presentations and meeting packets. • Maintains conference room calendars and project distribution lists. • Schedules and maintains project managers' calendars. • Processes incoming / outgoing mail. • Answers and direct phone calls. • Makes travel arrangements. • Provides backup support for maintaining project libraries. • Prepares project reports, meeting agendas and minutes, project communications and letters, and project documents throughout all phases of the project.		

Position Title	Administrative Assistant
Activities	• Assists in administering business services, including: purchase / maintenance of copiers, pagers, printers, fax machines, projectors; update project floor plan; purchase supplies and furniture. • Maintains checkout / in of project equipment, laptops, cell phones, projectors, pagers, etc. • Supports emergency activity coordination. • Prepares correspondence and documentation for the CWS-NS Assistant Deputy Director's signature. • Maintains status reporting schedules to assure project reporting obligations are met. • Proofreads outgoing documents for quality assurance.

Procurement/Contract Analyst

Position Title	Procurement/Contract Analyst		
Position ID	15	15	15
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	July 2013	July 2013	July 2013
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Fiscal & Contract Management Team		
Core Team	Yes	Yes	Yes
Position Description	The Procurement/Contract Analyst is responsible for performing a wide range of general procurement related activities in support of the CWS-NS Project.		
Activities	• Develops and manages the technical consultant contracts, seven interface partner IAAs, and Section V of the SI RFP. • Prepares Standard Agreements, Purchase Orders, Service Orders, Printing Requisitions, and supporting procurement documents (e.g., Contract Request Form, PCC 19130 Form, Exemption Request, etc.). Coordinates software license purchases, hardware maintenance agreements, and other IT purchases with the OSI Information Technology Office. • Assists in maintaining the Systems Integrator's Request for Proposal (RFP) and addenda. Maintains procurement documentation related to the Systems Integrator's solicitation such as question and answer sets, proposed requirements change matrices, and proposed contract language change matrices. Participates in the evaluation of bidder proposals for the Systems Integrator's solicitation. • Prints and compiles procurement packages such as RFPs, RFOs, addenda, work authorizations, and contract amendments. Creates DVDs, as necessary, to distribute the procurement packages to the CWS-NS stakeholders. • Peer reviews project documents. Participates in project meetings. Prepares meeting agendas and minutes, and written stakeholder communications.		

Position Title	Procurement/Contract Analyst
Activities	• Tracks contractor performance, project deliverables and provides status reports and recommendations to management, including deliverables and contract compliance audits; assists in the solicitation, evaluation, and award of consulting contracts. • Tracks and audits project invoices, verifies supporting documentation, labor hours, and reimbursable travel costs; processes invoices for approval/denial. • Assists in managing contract changes by participating in the change management process for the contract requirements, coordinates and tracks work authorization, (assists) in preparing contract amendments, coordinates the contract amendment approvals, and (ensures) contract amendments are placed under configuration control.

OLTP Database Administrator

Position Title	OLTP Database Administrator		
Position ID	38	**State Position Number**	
State Classification	Systems Software Specialist II (SSS II)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The OLTP Database Administrator is responsible for the Online Transaction Processing Database and data requirements for the statewide Child Welfare Services New System (CWS-NS) solution. The OLTP Database Administrator ensures the System Integrator (SI) properly addresses these requirements during design, development, testing and implementation of the database capabilities as part of the overall CWS-NS Solution.		
Activities	• Develops and manages technical requirements for the Online Transaction Processing Database areas, including standards, database system quality requirements, database performance factors, data management, database backups and recovery, and database security. • Ensures a mutual understanding with the SI, Office of Technology (OTech), and CWS-NS Project Team to develop and interpret guidelines of data and database system requirements that will be used to formulate information technology (IT) strategy and policy for CWS-NS. • Assesses existing database systems and facilities, analyzes database capacity needs, and monitors database technology direction, and design principles to make key decisions regarding changes to database and data warehouse requirements. • Leads the SI's activities to provide a database, data warehouse, and business intelligence capabilities by ensuring that these components are defined, planned, developed, tested, implemented, and maintained as defined by CWS-NS requirements, specifications and other documents.		

Position Title	OLTP Database Administrator
Activities	• As technical advisor, participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to data configuration items are provided to the CWS-NS Project in accordance with the Configuration Management Plan. • Provides mastery level expertise in the area of data, database administration, data warehousing, business intelligence, data analytics, when participating in the confidential bidder discussions and supporting the evaluation of vendor proposals. • Develops responses to the vendor and/or control agencies, and prepares change requests related to data and information management requirements. • Supports and manages the development of external interfaces agreements. • Assists in management oversight of the Technical Support Services vendor to ensure data and information management infrastructure capabilities are delivered consistent with contractual obligations. • Coordinates with OTech to ensure proper maintenance and operation of the CWS-NS system as it relates to data handling and database management services during normal periods of system operations as well as support of continuity of operations and disaster recovery. • Advises the Operations Manager on database issues and risks related to the CWS-NS Solution.

Application Manager

Position Title	Application Manager		
Position ID	37	**State Position Number**	
State Classification	Data Processing Manager II (DPM II)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Application Manager manages and directs the project staff responsible for the definition, maintenance, and management of the CWS-NS requirements and the project staff who work with the Systems Integrator to oversee and validate the incorporation of the requirements into the CWS-NS application.		
Activities	• Directs project staff in the development and implementation activities performed by the System Integrator. • Manages the evaluation of the System Integrator deliverables for acceptance, and resolves application questions, issues, and risks throughout the project life cycle, ensuring that the System Integrator functions according to contractual obligations. • Assists in the development of project management plans to build the information technology (IT) CWS-NS Solution that will service the business needs of the stakeholders. • Manages the development, deployment, and maintenance of the CWS-NS Solution which include requirements, transition, testing, technical training, and development activities performed by the System Integrator and the Development and Support Project team. • Ensures the design meets the business requirements based on information provided by county and state staff and monitors traceability of those requirements throughout the development and implementation of the CWS-NS by the Systems Integrator. • Plans and directs the User Acceptance Test performed by the CWS-NS Project staff and counties.		

Position Title	Application Manager
Activities	• Supports the transition activities that are the responsibility of the State. • Manages and resolves issues and risks related to the CWS-NS Project applications development and support activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication occurs. • Identifies and documents issues and coordinates activities leading to issue resolution. Develops, monitors, and maintains mitigation and contingency plans. • Participates in change management process in accordance with the CWS-NS Project Change Management Plan ensuring that changes related to applications development are provided to the CWS-NS Project. • Advises the Technical Chief on issues related to the CWS-NS Solution. • Performs various supervisory responsibilities related to staff management and development. Evaluates necessary staff resources and training needs. Establishes performance standards and expectations by conducting probationary reviews, annual Individual Development Plans, constructive intervention, corrective and disciplinary actions and training to enhance personnel growth. Establishes reasonable deadlines and monitors staff's workload to ensure work is completed accurately and timely. Provides advice and consultation to staff on the most difficult and sensitive work issues. Grants or deny staff requests for time off ensuring individual has sufficient leave credits available for the leave requested. • Plans and directs the User Acceptance Test performed by the State. • Plans and directs the transition activities that are the responsibility of the State and oversees the training and transition activities performed by the Systems Integrator.

Procurement & Fiscal Analyst

Position Title	Procurement & Fiscal Analyst		
Position ID	34	**State Position Number**	
State Classification	Staff Information Systems Analyst (Specialist)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Procurement Budget & Reporting		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Procurement & Fiscal Analyst is responsible for developing, managing and maintaining the major reporting and approval documents for federal and state oversight agencies, developing fiscal processes and manage correspondence with funding and oversight agencies and provide review of approval documents in support of CWS-NS. The SISA will also participate in the development of plans, procurement-related documents and procedures for all procurements, contracts, and associated deliverables.		
Activities	• Primary author of complex funding tables and worksheets, including accompanying narrative, for project approval documents (i.e., Feasibility Study Report, Special Project Report, Advance Planning Document) and funding approval documents (i.e., Budget Change Proposal, Premise Document and various budget drills) for the project including the development of accompanying federal and state correspondence. Collaborate closely with project technical, business subject matter experts, Office of Systems Integration (OSI) Budget Office and California Department of Social Services (CDSS) to identify various project costs (e.g., hardware, software, contractors, staffing, training, and facilities). Ensure project documents are in compliance with state policies and federal regulations. Manage and coordinate funding information from CDSS, several stakeholder groups, advisory groups, and federal, state and county agencies. Manage requests for approval of funding and documentation from federal and state oversight agencies, coordinating the activities of all relevant subject matter experts. Develop periodic and ad hoc reports and drills (budgetary exercises) pertaining to state and federal funding. Manage and coordinate the review and approval process of the funding documents.		

Position Title	Procurement & Fiscal Analyst
Activities	• Develop and maintain all solicitation documents (e.g., Request for Proposals [RFPs], Request for Offer [RFO], Interagency Agreements [IAAs], etc.) including the market surveys, Statements of Work, selection criteria/reports, pricing, compensation models, and contracts. Coordinates the development and maintenance of all procurement and contract requirements. • Collaborate with and present budget and fiscal information to federal, state, county, and contractor personnel and other stakeholder groups to present fiscal information requested by control agencies, facilitate discussion of fiscal documents and/or to facilitate vetting of the fiscal documents. Lead discussions on budget and fiscal information with representatives from the state data center, counties, contractors, and other entities associated with various Child Welfare Services' automation efforts. Escalate fiscal issues as appropriate to meet timeframes. Track and coordinate the resolution of fiscal issues and monitor fiscal risks and risk mitigation strategies. Prepare, provide and process and track project expenditures and invoices. • Prepare and implement the project's Contract Management Plan. Ensure contractual obligations of the parties are met and are continuously monitored to ensure compliance, including all requirements, deliverables, contractor compensation, service level agreements, liquidated damages, and contract amendments due to work authorizations, system change authorizations, and/or technical services requests. • Analyze and give recommendations on highly complex RFPs, contracts, and service agreements for Information Technology (IT) equipment and services. Develop the costing model for the system integrator RFP and other procurements requiring a costing model. Ensure compliance with state and federal control agencies' IT acquisition regulations, policies, and procedures. • Manage all correspondence with federal and state oversight agencies. Manage the review and updates of existing process documentation for this correspondence. Engage all public agencies that review or approve the project activities and funding. Provide executive management with background and trends on the history of interactions with funding and approval agencies. Act as the subject matter expert for the OSI fiscal staff, providing program and financial information in support of preparing budget documents. Stay current on statewide information technology policies under the State Administrative Manual, Statewide Information Management Manual and State Contracting Manual. Keep abreast of changes to federal and state child welfare regulations, laws, and policies.

Infrastructure Engineer

Position Title	Infrastructure Engineer		
Position ID	25	**State Position Number**	
State Classification	System Software Specialist II (Technical)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Infrastructure Engineer is responsible for ensuring that the Systems Integrator provides a cost effective and robust infrastructure to meet the technical, functional, and operational requirements for the statewide CWS-NS Solution. The Infrastructure Engineer is also responsible for defining the requirements, services, and deliverables needed to support establishment of a Technical Support Services contract and ensuring the vendor delivers services consistent with contractual obligations and service level agreements.		
Activities	• Documents and defines technical infrastructure requirements required to support the CWS-NS Solution. This includes telecommunications networks, routers, switches, servers (hardware, Operating Systems software), desktops, and mobile devices. • Analyzes and evaluates proposed computer software and hardware for State and County Child Welfare Services Case Management System (CWS-NS) sites to include, but is not limited to, operating systems, control systems, proprietary software packages, telecommunications software, and database management software. • Serves as the lead for developing the Technical Support Services procurement documents and evaluating bidders' responses. Manages development of a Request for Proposal (RFP) and leads technical efforts for defining requirements and soliciting bidders during the procurement effort. • Conducts extensive research of the 58 counties' current infrastructure, which supports the CWS-NS, to identify requirements and develop the Statement of Work and deliverables.		

Position Title	Infrastructure Engineer
Activities	• Provides technical hardware, software, and infrastructure expertise while evaluating bidders' proposals. • Responds to vendors' questions related to infrastructure requirements and evaluates the CWS-NS solution infrastructure (hardware/software) components of draft and final proposals. Serves as a technical Subject Matter Expert to support the CWS-NS Proposal Evaluation Team evaluations of the Systems Integrators' draft and final bids for the CWS-NS Solution. Reviews and evaluates deliverables that impact infrastructure requirements and provide findings and acceptance recommendations to the evaluation team. • Ensures that the infrastructure design and implementation are appropriate to support the development of the CWS-NS Solution. Coordinates between the Office of Technology Services (OTech) and the Systems Integrator, regarding the CWS-NS infrastructure configuration and various components installed at OTech for centralized processing. This will include Wide Area Network (WAN) capabilities to support communication with the counties. • Provides infrastructure cost estimates for budget planning. Manages communications for all CWS-NS related infrastructure management to create the infrastructure design and complete implementation. • Manage issues and risks related to infrastructure management. Coordinate activities, communication, and documentation for issue resolution. Develop and monitor risk mitigation plans and contingency plans. Participate in implementation status meetings and advise the CWS-NS Project management on issues and risks related to the CWS-NS infrastructure solution.

Senior PMO Analyst

Position Title	Senior PMO Analyst		
Position ID	31	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	PMO Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Senior PMO Analyst is responsible for ensuring the project management activities of the CWS-NS Project are conducted in accordance with CWS-NS project management plans, OSI best practices, and industry best practices for project management. The Senior PMO Analyst manages and oversees the project management activities related to risk management, issue and action item management, schedule management, change management, cost management, staff management and communications management.		
Activities	• Monitors and verifies that proven, best practices from federal, state and industry standards are followed in order that the Project can effectively and efficiently meet project goals and objectives. • Leads the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD). • Initiates requests for policy interpretation or clarification from oversight agencies and CDSS to the CWS-NS Assistant Deputy Director. • Coordinates with project management on risks or issues concerning quality assurance, risk management, planning, issue management, and other project management disciplines by providing information and recommendations for action by management. • Provides leadership to team members and other project staff on project management policies, procedures, facilitation practices, and standards necessary in the performance of CWS-NS Project activities.		

Position Title	Senior PMO Analyst
Activities	• Monitors and guides team members to insure that their own task outcomes (e.g., analysis, documentation, and recommendations) meet OSI best practices. • Develops and maintains the Process Management and Improvement Plan documenting roles, responsibilities, and activities for process definition and improvement. • Creates and maintains a process repository for the project management processes used by the CWS-NS Project Office. • Assists the CWS-NS Project team in developing plans and processes that comply with project standards. • Assists in the execution of processes through the review of documentation and implementation. • Conducts process definition/improvement workgroups through development of workgroup objective and strategy, and coordination of workgroup participation. • Performs change management activities for changes to project management processes in accordance with the CWS-NS Change Management Plan. • Ensures project plans and documented project processes are approved and placed under configuration management. • Conduct Lessons Learned sessions at project milestones and as directed by the Project Management Chief, documents Lessons Learned, and manages a Lessons Learned repository. • Reviews Systems Integrator deliverables related to project management processes to identify process improvement opportunities. • Assists in the preparation of reports on project activities and status.

QA Analyst

Position Title	QA Analyst		
Position ID	42	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	July 2013	**Position End Date**	Sept 2017
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Project Management Team		
Core Team	No	**Resource Category**	Project Staff
Position Description	The QA Analyst will provide guidance to the project team on quality processes and issues and define and integrate quality processes into the CWS-NS Project.		
Activities	• In collaboration with the PMO analysts, develops the QA plan and associated processes and procedures. • Monitors the implementation of quality processes defined in the QA Plan across all project deliverables. • Works closely with the System Integrator quality management staff to ensure a mutual understanding of quality requirements and their incorporation into the System Integrator's processes. • Monitor project and Systems Integrator quality processes and metrics and assists in the training of project staff on quality policies and processes throughout the project life cycle. • Assists project staff in the understanding CWS-NS Project quality policies, processes, and procedures. • Participates in the review and acceptance of contract deliverables. • Manages issues related to the quality, including identifying and documenting issues related to quality processes and procedures, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Identifies and monitors risks related to quality, develops and monitors mitigation plans and develops and maintains contingency plans. • Advises the CWS-NS Project Management Chief on quality issues and risks related to the CWS-NS Solution.		

Business/Requirements Analyst

Position Title	Business/Requirements Analyst		
Position ID	16	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Services Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Business/Requirements Analyst is responsible for ensuring the CWS-NS Solution includes the business requirements and functionality that meet the needs of the counties, CDSS, and other stakeholders. The Business/Requirements Analyst oversees and participates in the Systems Integrator's plans and activities to define the CWS-NS system requirements, to design and build the system application, and to test that the application meets requirements and specifications.		
Activities	• Develops and maintains the Requirements Management Plan. • Serves as a technical member on the Evaluation Team for the evaluations of draft and final bids of the Systems Integrator and Infrastructure Services procurements. • Oversees the requirements definition processes, including monitoring and assessing issues that relate to requirement changes, defining and documenting business requirements, assist in business analysis, facilitating workgroups to define business requirements, defining and documenting technical requirements resulting from business analysis and/or business workgroups, and coordinating requirements approval. • Traces requirements to deliverables, including the evaluation of the Systems Integrator requirements tracing analysis for System and User Acceptance Testing to ensure the CWS-NS Solution meets program requirements.		

Position Title	Business/Requirements Analyst
Activities	• Administers the tool for requirements management, including establishing and maintaining CWS-NS Project processes related to requirements management, entering all CWS-NS Project system and service requirements into the database, establishing and maintaining links and relationships between requirements so that when a requirement is changed, other affected requirements are also considered. • Participates in contract oversight related to requirements management, including participating in requirements definition, requirements validation, and system design sessions. • Documents and reports requirement management activities and status. • Coordinate communications and respond to inquiries for the CWS-NS Project team related to requirements management. • Manages issues related to requirements management, including identifying and documenting issues related to requirements management, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Manages risks related to requirements management, develops and monitors mitigation plans and develops and maintains contingency plans. • Assists in the review and evaluation of the requirements management deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance. • Advises the CWS-NS Application Manager on requirements management issues and risks related to the CWS-NS Solution.

Security Administrator

Position Title	Security Administrator		
Position ID	40	**State Position Number**	
State Classification	Software Systems Specialist II (SSS II)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Security Administrator will provide guidance to the project team on system security policies and practices. The Security Administrator ensures that the Child Welfare Services New System (CWS-NS) Project solution is designed, developed, tested, and implemented to meet CWS-NS business needs for system security, protecting the use of sensitive data and privacy as prescribed by federal, State, and local mandates.		
Activities	• Defines and integrates system security policies and procedures into the highly complex statewide CWS-NS Solution. Works closely with the System Integrator security architecture and development staff to ensure a mutual understanding of security policy and requirements and their incorporation into the CWS-NS solution. • Oversees the Systems Integrator on security architecture and security processes, evaluates deliverables for acceptance, and resolves security questions throughout the project life cycle. • Provides project staff with training and an understanding of the Office of Systems Integration (OSI), California Department of Social Services (CDSS), federal, State, and county security policies and procedures. • Oversees the vendor responsible for ongoing maintenance and operation of the CWS-NS to ensure that delivery of CWS-NS services is consistent with OSI, CDSS, State, and county security policies and best practices. • Participates in the review and acceptance of contract deliverables related to CWS-NS security architecture and design.		

Position Title	Security Administrator
Activities	• Oversees the System Integrator's security related issue and risk management activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication occurs. Advises the Operations Manager on security issues and risks related to the CWS-NS Solution. • Participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to security configuration items are provided to the CWS-NS Project. • Monitors changes to OSI, CDSS, federal, State, and county security policies along with evolution of industry best practices and standards during CWS-NS maintenance and operations phase of the system lifecycle to identify new security requirements. Advises CWS-NS staff of the implications to secure operation and delivery of CWS-NS support. • Conducts periodic security reviews to assess threat, implementation of data security and privacy policies, vulnerability management, security of data, exchange of information internal and external to the system, availability/readiness of disaster recovery and continuity of operations. Provide findings and recommendations to the CWS-NS staff responsible for proper use, operation, and maintenance of the CWS-NS Solution. • Participates in confidential bidder discussions, assists in the development of responses to the vendor and/or control agencies, and prepares change requests related to security requirements. • Supports evaluation of vendor proposals by providing subject matter expertise in the area of security policies, industry security practices, security standards, and security products and services. Provides assessment of how well the proposed security architecture supports the overall needs of the CWS-NS Solution in terms based on threat assessment and implementation of vulnerability management. • Advises the Operations Manager on security issues and risks related to the CWS-NS Solution.

Procurement & Contract Analyst

Position Title	Procurement & Contract Analyst		
Position ID	26	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Fiscal & Contract Management Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Procurement & Contract Analyst is responsible for performing a wide range of procurement and contract activities. These activities include developing and managing the technical consultant contracts, seven interface partner IAAs, and Section V of the SI RFP.		
Activities	• Develops and maintains solicitation documents (e.g., Request for Proposal (RFP), Request for Offer (RFO), Interagency Agreements (IAA), etc.), including the Statements of Work, pricing, compensation models, proposal evaluations, and contracts. Coordinates the development and maintenance of all procurement and contract requirements. • Develops and maintains Market Surveys, Interagency Agreements, Proposal Evaluation Plans and county consultant contracts. • Prepares procurement requests, justifications, and other procurement related documents in accordance with the Office of Systems Integration (OSI) Procurement and Contracting policies. Works closely with the OSI Acquisitions Center (AC) oversight analyst and CWS-NS Project team throughout the procurement planning, procurement and contracting phase. • Participates in bidder conferences. Coordinates and responds to bidder questions, proposed requirement changes, and proposed contract changes. Coordinates and participates in confidential discussions and evaluations. Coordinates and develops RFP addenda, including their revision history logs and review comment matrices. • Develops and updates project schedule, including tasks, durations and resources. Provides status updates to CWS-NS Project management team and OSI AC management on all CWS-NS procurements.		

Position Title	Procurement & Contract Analyst
Activities	• Prepares and implements the CWS-NS Systems Integrator's Contract Management Plan and all CWS-NS's Contract Management Plan. Ensures contractual obligations of the parties are met and are continuously monitored to ensure compliance, including all requirements, deliverables, contractor compensation, service level agreements, liquidated damages, and contract amendments due to work authorizations, system change authorizations, and/or technical services requests. • Works closely with OSI management on complex contract issues and assists in the resolution of those issues. Provides status updates to CWS-NS Project management team and OSI AC management on all CWS-NS contracts. • Facilitates CWS-NS project discussions with the assigned Administration for Children and Families (ACF) federal analyst, California Department of Social Services (CDSS) program and legal staff, CWS-NS project staff, and the AC oversight analyst regarding any proposed changes to the State IT and Non-IT procurements and contracts prior to informal and/or formal submission to DGS and the federal partner. • Collaborates with CWS-NS project staff and project contractors on processes for deliverable acceptance, material submissions, and compensation, documenting acceptance approvals, and managing invoices and payment requests. • Manages CWS-NS deliverable tracking system and due dates for contract deliverables and materials. Works with the appropriate CWS-NS project deliverable coordinators to resolve deficiencies with deliverables and materials. • Develops the process for IT and non-IT contract invoicing to ensure schedules, budgets, performance, and products for the invoice periods are consistent with their respective contracts. • Assists in the definition, establishment, and maintenance of the product scope and other project management products including cost management, schedule management, change management, and status reporting. Identifies risks and issues and recommends the best solution. • Assists in the development and review of State and federal project-approval documents such as the Special Project Reports, Supplementary Premise Information, and Federal Advance Planning Documents to secure State and federal funding.

System Architect

Position Title	System Architect		
Position ID	22	**State Position Number**	
State Classification	Systems Software Specialist III (SSS III)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The System Architect is responsible for ensuring the CWS-NS Architecture fits within the State's overall architecture strategy and meets the needs of the State, counties, and other stakeholders. The System Architect leads the Architecture Office and oversees the activities of the Systems Integrator to ensure the CWS-NS Architecture is defined, planned, developed, implemented, and maintained as defined in CWS-NS Project requirements, specifications, plans, and other documents.		
Activities	• Serves as a technical member on the Evaluation Team for the evaluations of draft and final bids of the Systems Integrator and Infrastructure Services procurements. • Responsible for ensuring the comprehensive CWS-NS Solution design reinforces the extensive CWS business functions in an efficient and effective manner. • Coordinates and participates in the most complex custom technical software configuration management and maintenance of system environments. • Coordinates technical State and county staff input into the design of CWS-NS system to support each of the complex technical architecture components. • Oversees the CWS-NS Systems Integrator architecture strategy and models for compliance and consistency with the State's overall architecture strategy. • Ensures system adherence to technical requirements for design, development, testing, system performance, and operability.		

Position Title	System Architect
Activities	• Reviews all deliverables associated with the technical aspects of the project (design, development, testing, system performance, and operability). • Documents and reports CWS-NS Architecture activities and status. • Coordinates communications and respond to inquiries for the CWS-NS Project team related to the CWS-NS Architecture. • Manages issues related to the CWS-NS Architecture, including identifying and documenting issues related to the architecture, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Manages risks related to the CWS-NS Architecture, develops and monitors mitigation plans and develops and maintains contingency plans. • Assists in the review and evaluation of the technical deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance. • Advises the Operations Manager on issues and risks related to the CWS-NS Architecture.

Senior PMO Analyst

Position Title	Senior PMO Analyst		
Position ID	32	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	July 2013	**Position End Date**	Sept 2016
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	PMO Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Senior PMO Analyst is responsible for performing tasks in support of the project management activities of the CWS-NS Project. The Senior PMO Analyst supports the project management processes of risk management, issue and action item management, schedule management, change management, cost management, and communications management and develops content for control agency documents.		
Activities	• Implements project management best practices from federal, State and industry standards in order that the CWS-NS Project can effectively and efficiently meet project goals and objectives. • Coordinates and participates in the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD). • Assists project management on risks or issues of quality assurance, risk management, planning, issue management, schedule management, and other project management disciplines by providing both required information and recommendations for action by management. • Analyzes all federal documents relative to the CWS-NS Project and develops the appropriate responses based on the analyst's knowledge of the project's strategic and tactical plans for future changes and their associated technical justifications. • Coordinates and leads schedule planning and update sessions for the project. • Maintains the CWS-NS Project Schedule and produces reports on scheduled activities.		

Position Title	Senior PMO Analyst
Activities	• Serves as the liaison between the CWS-NS Project and OSI facilities to deal with space planning and staff management issues. • Coordinates with OSI Human Resources to deal with issues regarding the hiring and housing of numerous staff additions (e.g. full compliment of equipment, space, and furniture.) • Serves as the liaison between Project and OSI IT support services for all issues regarding new and existing staff. • Coordinates and leads process improvement sessions for improving internal project processes and for processes involving interactions with other organizations. • Creates and maintains the CWS-NS Lessons Learned repository. • Serves as a PMO member of the Evaluation Team for the evaluations of draft and final bids of the Systems Integrator related to project management components. • Assists in the preparation of reports and presentations on project activities and status for various stakeholders.

Configuration Management Analyst

Position Title	Configuration Management Analyst		
Position ID	39	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Project Management Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Configuration Management Analyst is responsible for providing guidance to the project team on system configuration management processes and issues. This role is also responsible for the configuration and management of all tools utilized during each phase of the project. The Configuration Management Analyst works with the System Integrator to help define and integrate system configuration management processes for use during design, development, testing, and implementation of the highly complex statewide Child Welfare Services New System (CWS-NS) solution, as well as M&O future releases.		
Activities	• Participates in joint requirements validation, work sessions, or review sessions as related to configuration management deliverables. • Assists in the procurement activities by serving as a technical member on the Evaluation Team during the evaluations of draft and final proposals of the Systems Integrator. • Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda. • Assists in issue management, including identifying and documenting issues, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Assists in risk management, mitigation planning and contingency planning. • Provides configuration management training to CWS-NS project staff to provide common understanding of configuration management best practices and how they should be implemented in support of the project life cycle activities.		

Position Title	Configuration Management Analyst
Activities	• Collaborates with Operations Team concerning configuration management requirements and practices as relates to their specific areas of responsibility for the CWS-NS Solution. • Assists in the review and evaluation of the configuration management deliverables of the CWS-NS System Integrator and provide findings and recommendations to Operations Manager concerning acceptance. • Monitors System Integrator's configuration management related issue and risk management activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication. • Advises the Operations Manager on configuration management issues and risks related to the CWS-NS Solution. • Participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to configuration items are provided to the CWS-NS Project in accordance with the Configuration Management Plan. • Participates in confidential bidder discussions, and assists in the preparation of change requests related to configuration management requirements. • Monitors the vendor configuration management activities during ongoing maintenance and operation of the CWS-NS solution to ensure that configuration management of the CWS-NS solution is preserved to support operational effectiveness, disaster recovery, and continuity of operations. • Supports evaluation of vendor proposals by providing information in the area of configuration management. • Monitors the vendor configuration management activities during ongoing maintenance and operation of the CWS-NS solution to ensure that configuration management of the CWS-NS solution is preserved to support operational effectiveness, disaster recovery, and continuity of operations. • Provides assistance in development of External interfaces agreements. • Monitors and assesses effectiveness of configuration management processes implemented by the Infrastructure Service and Support and IT Service Management vendors during the maintenance and operations phase of the system lifecycle. Provides findings and advises CWS-NS staff of the implications to the CWS-NS service solution. • Advises the Assistant Deputy Director on configuration management issues and risks related to the CWS-NS Solution.

Test Analyst

Position Title	Test Analyst		
Position ID	21	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Test Analyst is responsible for ensuring the CWS-NS Solution includes planning and processes for system testing and user acceptance testing that meet the needs of the counties, CDSS, and other stakeholders. The Test Analyst participates in and oversees the Systems Integrator, county, and State plans and activities to test the CWS-NS.		
Activities	• Oversees and participates with the System Integrator in the development of testing plans and activities to test the CWS-NS. Works with the System Integrator project team to ensure a mutual understanding of the test plans and procedures and how these are incorporated into and achieved by the CWS-NS Solution. • Leads contract oversight, requirements definition, validation, and system design related to testing. Provides findings and recommendations to project management for acceptance. Manages communications and responds to inquiries for the CWS-NS Project teams related to testing activities and results. • Provides leadership to team members on processes and procedures for technical matters related to testing. Leads the review and acceptance of the CWS-NS System Integrator's contract technical deliverables and processes for testing, planning, and execution, including CWS-NS design and design changes to ensure testing procedures are met. Evaluates test plans, test samples, scripts and test reports. • Leads the coordination of test facilities and users for testing. Distributes and reviews the work of the CWS-NS Solution testing team for deadlines and quality.		

Position Title	Test Analyst
Activities	• Develops and maintains project plans for testing, including the CWS-NS UAT Plan, test procedures, test cases and scripts, test baselines, and evaluation plan for Systems Integrator testing. • Documents UAT results and records/tracks defects and the Systems Integrator resolution of defects resulting from User Acceptance Testing. Provides guidance and expertise to project staff in developing UAT scenarios and scripts. • Oversees issue and risk management activities related to testing of the CWS-NS application to ensure that timely and accurate identification, tracking, coordination, documentation, and communication occur. Develops, monitors, and maintains mitigation and contingency plans for issue resolution related to testing. Advises the CWS-NS Application Manager on testing issues and risks related to the CWS-NS Solution. • Participates in bidder confidential discussions, evaluates draft and final proposals, assists in the development of responses to the vendor and/or control agencies, and prepares Request For Proposal changes related to testing. Supports evaluation of vendor proposals by providing subject matter expertise in the area of testing. • Takes a leading role in the managing and support of the CWS-NS Solution testing team. • Assigns and reviews the work of the CWS-NS Solution testing team for deadlines and quality.

Test Analyst

Position Title	Test Analyst		
Position ID	52	**State Position Number**	
State Classification	Associate Information Systems Analyst (AISA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Test Analyst is responsible for providing support for the oversight of the System Integrator's development activities including requirements validation, system design, test planning, test design, and test script design. The Test Analyst is also responsible for supporting the Test Analyst with unit, system, and integration testing oversight activities. The Test Analyst participates with the SI staff in unit, system, and integration testing activities, and reports on testing anomalies.		
Activities	• Assists in developing and maintaining State and county plans for testing, including the CWS-NS User Acceptance Test Plan, CWS-NS User Acceptance Test procedures, and scripts, CWS-NS User Acceptance Test baselines, and evaluation plan for Systems Integrator testing. • Participates in contract oversight related to testing, including participating in requirements definition, requirements validation, system design, and test planning sessions. • Oversees the CWS-NS Systems Integrator testing activities and the State and county testing activities. • Assists in documenting and reporting testing activities and status. • Assists in coordinating communications and responding to inquiries for the CWS-NS Project team related to testing.		

Position Title	Test Analyst
Activities	• Assigns and reviews the work of the CWS-NS Solution testing team for deadlines and quality. • Assists in managing issues related to all CWS-NS Project testing, including identifying and documenting issues related to testing, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Assists in managing risks related to all CWS-NS Project testing, develops and monitors mitigation plans and develops and maintains contingency plans. • Assists in the review and evaluation of the testing deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.

Customer Relations Manager

Position Title	Customer Relations Manager		
Position ID	07	**State Position Number**	
State Classification	Data Processing Manager II (DPM II)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Customer Relations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Project Management Chief, the Customer Relations Manager is responsible for all matters regarding communication on the existing Child Welfare Services New System (CWS-NS) project with customers, sponsors and stakeholders.		
Activities	• Provide leadership to the CWS-NS in the area of communication. Advise the Project Management Chief and the project executive management team on all developing communication strategy and documentation. • Maintain the Communication Management Plan documentation that govern communication. Manage the communication infrastructure to assure customers are provided with consistent and reliable information with regard to the Projects; and that the counties are enabled to participate in vital project activities. • Provide direct management of the Customer Relations Team. Organize, coordinate, review, and track customer contacts made by the team with various Project customers and stakeholders. This will include the establishment of service level agreements with internal and external stakeholders. • Provide the CWS-NS project with continuous output from customer relations analysts to direct the activities and decisions of CWS-NS Project Teams and Managers. Assure effective storage and distribution of documents related to customer and stakeholder inputs. • Coordinate with County Operations Support Services to provide appropriate customer support to all technical refresh activities that impact the county applications, including hardware, software and license renewals of CWS-NS after initial deployments.		

Position Title	Customer Relations Manager
Activities	• Perform various supervisory responsibilities related to staff management and development. Evaluate necessary staff resources and training needs. Establish performance standards and expectations by conducting probationary reviews, annual Individual Development Plans, constructive intervention, corrective and disciplinary actions and training to enhance personnel growth. Establish reasonable deadlines and monitor staff's workload to ensure work is completed accurately and timely. Provide advice and consultation to staff on the most difficult and sensitive work issues. Grant or deny staff requests for time off, ensuring individual has sufficient leave credits available for the leave requested.

System Support Analyst

Position Title	System Support Analyst		
Position ID	45-50	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Customer Relations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Customer Relations Manager (DPM II), the Staff Information System Analyst (SISA) provides analysis of complex Information Technology (IT) and business issues for CWS-NS, and is lead on projects that have county, regional or statewide impact. The SISA will support the county funding process by which all counties obtain electronic data processing (EDP) equipment. Travel to various State of California counties will be required.		
Activities	• Design, develop, deploy and manage tools and processes to support CWS-NS's numerous and diverse stakeholders. • Maintain records relevant to the infrastructure of the county network, county hardware and user profiles. • Serve as team lead for CWS-NS in support of critical activities necessary to ensure the availability of the CWS-NS application by performing complex analysis and business process reengineering functions. • Communicate the resolution response and timeframes to the affected counties when there are unplanned outages and coordinate specialized training for counties as needed. • Attend the regional user group meetings to provide project updates, collect, research, and respond to questions, concerns, and issues from the counties. • As a CWS-NS system subject matter expert, participate in the development of requirements and analysis of impacts on the county business process for service requests to be incorporated in a new release. Answer questions from counties concerning deployment of a release, participate in the county test workshops, and respond to any questions or concerns regarding the CWS-NS application or technical requirements. Recommend new or amended processes and methods as a result of emerging technologies to achieve customer satisfaction.		

Position Title	Systems Support Analyst
Activities	• Coordinate and manage special project initiatives assigned by CWS-NS management to provide products and services to help either the counties or the project staff as needed. This may include the development of procurement documents, state and federal reporting documentation, training curriculum, user guides, or other required materials. • Facilitate communications and problem solving with CWS-NS project and county end users through the web site, customer surveys, and reports. Research emerging new technologies to develop new methods, criteria and/or new policies. Facilitate resolution of complex IT issues facing CWS-NS and county end-users. • Research, analyze, and resolve highly complex issues raised by the counties regarding the Advance Planning Documents (APD) and ensure that each county has the components needed for the procurement and deployment of complex EDP systems and services. • Provide technical assistance to the county in order to facilitate the generation of county Advance Planning Estimates, APD updates, and development of completion reports. Maintain metrics that describe county acquisition activities to federal and State oversight agencies. Coordinate activities of counties and vendors to promote effective and timely refresh of data processing equipment.

Fiscal Analyst

Position Title	Fiscal Analyst		
Position ID	14	**State Position Number**	
State Classification	Associate Governmental Program Analyst (AGPA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Fiscal & Contract Management Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Child Welfare Services New System (CWS-NS) Fiscal/Contract Manager, the Associate Governmental Program Analyst is responsible for independently performing the most complex fiscal activities related to budget development and maintenance, fiscal monitoring, analysis, reporting, and planning for the CWS-NS Project.		
Activities	• Develop, process, and track contracts/invoices, perform all activities related to expenditure tracking, monthly expenditure reconciliations, budget monitoring, budget planning, and fiscal projections. • Responsible for developing supporting documentation and substantiation of figures in the development of project-approval documents such as Special Project Reports, Feasibility Study Report, Supplementary Premise Information (SPI) documents, and federal Advance Planning Document Updates. • Interact and coordinate with vendor staff, federal government, CWS-NS staff, other state, and county staff, to obtain information and to collaborate on project issues to ensure that the Project Financial Services Unit is responsive to the needs of CWS-NS. • Analyze, verify, and monitor expenditures against contract activities and contract budgets. Interpret contract language, track expenditures, and develop complex detailed budget/expenditure reports using Microsoft (MS) Excel and/or MS Access, for management review and updates. Develop necessary changes to expenditure processes resulting from negotiated contract changes with vendors or initiated amendments.		

Position Title	Fiscal Analyst
Activities	• Recommend innovative solutions for streamlining fiscal processes, perform issue resolution, coordinate replacement consultants, and follow through on approvals of any changes. • Validate invoices against approved payments as identified in the Statement of Work, identify problems and make recommendations to management on resolution. • Independently research and analyze technical complex issues/projects for CWS-NS, Control Agencies, the Federal Administration for Children and Families, and other stakeholders. • Develop issue papers and recommendations on funding and operational issues, in accordance to state and federal policies. Respond to questions and information requests from internal and external customers, such as the Legislative Analysts Office, Office of the Chief Information Officer, federal government, and counties. • Develop and organize CWS-NS budget documents in accordance with state and federal polices for submission during the November Subvention and May Revise budget process, including the development of Budget Change Concepts, SPIs, and Spring Finance letters, requesting approvals for funding of project activities by federal, state, and county dollars, develop narrative descriptions and justifications of the proposed changes. • Develop and identify allocation methodologies to determine appropriate allocation funding levels for all project activities. Develop project presentations using MS PowerPoint. • Perform special assignments in support of the CWS-NS Project as assigned such as Agency drills or Legislative requests for information.

Executive Assistant

Position Title	Executive Assistant		
Position ID	09	**State Position Number**	
State Classification	Executive Assistant (EA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Executive Support		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Deputy Director, Child Welfare Services New System (CWS-NS) Project, the Executive Assistant (EA) provides administrative support to the Deputy Director and project management staff and acts as lead administrative support between the Executive Office and CWS-NS. The EA is required to work independently and as a member of a team, as appropriate.		
Activities	• Provide assistance to the Deputy Director by conducting analytical research on sensitive program issues and responding to inquiries on these issues. On behalf of the Deputy Director: ensure timely and accurate delivery of products; respond to information requests, action requests, media, Agency, Legislature and Governor's Office inquiries; prepare and ensure the accurate development and release of sensitive and confidential communications in compliance with state policies, processes and protocols; and exemplifies strict confidentiality with all sensitive documents and communications. • Provide the following administrative support to the Deputy Director: ensure accurate preparation and timely release of sensitive documents and correspondence; arrange in-state and out-of-state travel and develops itineraries following state guidelines; develop the out-of-state travel budget; organize, coordinate and maintain calendars for the Deputy Director and Assistant Deputy Director; schedules and coordinate all logistics of high-level meetings; identify administrative support issues, and draft meeting documentation and presentations.		

Position Title	Executive Assistant (EA)
Activities	• Provide contract administration support on the prime vendor contract: process prime vendor contract deliverables and work products; support the timely response to issues resulting from communication and documentation between executive management and the prime vendor. • Ensure consistent office support processes, office methods, and quality assurance of document preparation.

Data Warehouse Administrator

Position Title	Data Warehouse Administrator		
Position ID	41	**State Position Number**	
State Classification	System Software Specialist II (SSS II)		
Position Start Date	July 2013	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Data Warehouse Administrator is responsible for the data requirements for the statewide Child Welfare Services New System (CWS-NS) solution. The Database Administrator ensures the System Integrator (SI) properly addresses these requirements during design, development, testing and implementation of the data warehouse and business intelligence capabilities as part of the overall CWS-NS Solution.		
Activities	• Develops and manages technical requirements for data administration areas, including standards, system quality requirements, performance factors, data management, backups and recovery, and security. • Assists in the procurement activities by serving as a technical member on the Evaluation Team during the evaluations of draft and final proposals of the Systems Integrator. • Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda. • Assists in issue management, including identifying and documenting issues, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution. • Ensures a mutual understanding with the SI, Office of Technology (OTech), and CWS-NS Project Team to develop and interpret guidelines of data and data requirements that will be used to formulate information technology (IT) strategy and policy for CWS-NS. • Assesses existing database systems and facilities, analyzes database capacity needs, and monitors database technology direction, and design principles to make key decisions regarding changes to data warehouse requirements.		

Position Title	Database Administrator
Activities	• Leads the SI's activities to provide a data warehouse and business intelligence capabilities by ensuring that these components are defined, planned, developed, tested, implemented, and maintained as defined by CWS-NS requirements, specifications and other documents. • Provide a consolidated, flexible meaningful data repository to the end users for reporting and analysis. • Perform Data Source Interaction by analyzing and processing data extracted from a variety of sources, e.g. OLTP databases, historical repositories and external data sources to achieve a constant and efficient connection to the data source. • Perform Data preparation and staging with the data extracted from diverse sources using efficient data cleaning and loading technologies, e.g. ETL (Extraction, Transformation and Loading) to the warehousing system. • Partition, summarize and store the data for efficient query and analysis. Create subject oriented data marts, dimensional models of data and use of data mining technologies • Manage data presentation tools necessary for query, analysis and reporting on data to deliver a rich end user experience. • Manage metadata rules applied while cleaning and transforming data before storage in a separate relational database.

Web Analyst

Position Title	Web Analyst		
Position ID	10-11	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Operations Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Operations Manager, the Staff Information Systems Analyst (SISA) designs, develops, implements and maintains web-based applications that operate on the both the local area networks (LAN) and wide area networks (WAN).		
Activities	• Plan, design, develop, and implement complex web-based applications and multimedia web content housed on the internet site of the CWS-NS Project using such tools as DreamWeaver, Flash, Fireworks, and HTML. Process system/network/server upgrades for the maintenance of current web-based applications. • Develop complex database structures for the web based applications and the stand-alone database applications. Provide leadership to the team ensuring that development processes adhere to industry guidelines, including the use of a Systems Development Life Cycle (SDLC) for consistent and effective workflow. • Facilitate regular meetings and technical document walkthroughs, review and approve Web Change Requests (WCR) and web page prototypes to ensure that modifications are consistent with the scope of the business requirements and are concurrent with State of California mandated standards as well as standards developed by the CWS-NS project.		

Position Title	Web Analyst
Activities	• Review, respond to, and resolve complex customer issues and questions by communicating resolutions to technical issues related to web-based applications, local area networks (LAN) and wide area network (WAN) issues, security, and server maintenance. • Research emerging technologies to develop new methods, criteria, and/or policies and provide recommendations to CWS-NS management for further hardware and software upgrades in support of the web-based applications.

Design/Test Manager

Position Title	Design/Test Manager		
Position ID	43	**State Position Number**	
State Classification	Data Processing Manager I (DPM I)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Application Manager of the Child Welfare System New System (CWS-NS), the Data Processing Manager I is responsible for managing a unit of analysts who participate in a variety of Application Support activities for the CWS-NS used in 58 counties.		
Activities	• Plan, organize, and supervise staff providing maintenance support of the CWS-NS application software. • Define the scope of system changes and reviews and approves system change requirement/design documents, test plans, and test result/risk assessment documents. • Manage software change work plans, prepare and present unit activity reports, and approve and contribute to internal and external policy and procedures. • Coordinate personnel actions (recruitment, resource allocations, etc.) for the unit with the Application Manager to ensure appropriate resources are available to meet customer needs. • Facilitate and participate in regular and frequent meetings with internal and external customers to exchange information and reach decisions relative to customer requests and needs. • Direct unit staff in effective meeting facilitation practices. Act as a liaison with all levels of federal, state, and county governments and vendors. • Participate in the identification, clarification, and simplification of work processes (business process re-engineering) to improve staff efficiency and effectiveness in providing customer service.		

Position Title	Web Analyst
Activities	• Assist in the development of budget documents required for the CWS-NS including the Request for Proposal (RFP) process, Advanced Planning Documents (APD), Budget Change Proposals (BCP), and preparation of vendor contracts, task forces, project status reports, etc. • Perform various supervisory responsibilities related to staff management and development. Evaluate necessary staff resources and training needs. Establish performance standards and expectations by conducting probationary reviews, annual Individual Development Plans, constructive intervention, corrective and disciplinary actions and training to enhance personnel growth. Establish reasonable deadlines and monitor staff's workload to ensure work is completed accurately and timely. Provide advice and consultation to staff on the most difficult and sensitive work issues. Grant or deny staff requests for time off ensuring individual has sufficient leave credits available for the leave requested

Design Analyst

Position Title	Design Analyst		
Position ID	19	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general supervision of the Application Design Manager of the Child Welfare Services New System (CWS-NS) Application Test/Design Team, the Staff Information Systems Analyst (SISA) is the Design Analyst responsible for system changes to the CWS-NS application.		
Activities	• Lead team members through all phases of the Software Development Lifecycle. Independently perform the most complex analysis for the CWS-NS application in the service of children at risk. • Complete analysis for requirements and design, address regulatory changes and other potential system modifications. Lead the Application Services Team in requirement development, review and validation of vendor-generated designs. • Direct and assist team members with their analytical assignments which currently impact more than 18,000 users in all 58 counties and the California Department of Social Services (CDSS). • Collaborate with state, county, and vendor staff in the identification and resolution of issues. Facilitate or participate in meetings to promote the exchange of information and reach decisions relative to customer requests and needs. • Facilitate the Joint Application Requirement/Joint Application Design (JAR/JAD) sessions to obtain user input to business requirements. • Initiate requests for policy interpretation or clarification from oversight agencies and CDSS. • Coordinate with project management on issues of quality control, risk management and mitigation, planning, issue resolution, implementation, providing both required information and recommendations for action by management.		

Position Title	Design Analyst
Activities	• Support and monitor the activities of unit analysts in the facilitation of JAR/JAD processes and the documentation of results. • Lead team members and independently participates in the development of technical documents consistent with level three of the Software Acquisition Capability Maturity Model (SA-CMM). These documents include, but are not limited to, requirements that define the scope, business, functional, and technical requirements of the system change. • Create user guidelines in order to provide counties with details regarding the impact of system changes and their effect on end users. • Provide information to assist the supervisor in the decision making process with regards to system change requests, implementation issues, regulation and policy changes, and the prioritization of application changes. • Provide leadership to team members and other project staff on policies, procedures, facilitation practices, and standards necessary in the maintenance and operation of the CWS-NS application. • Monitor and guide team members to insure that their own task outcomes (e.g., analysis, documentation and recommendations) meet with standards necessary to support operation and maintenance of the CWS-NS application. • Participate in the identification and clarification of the customer's business processes as they relate to the CWS-NS application. Simulate realistic customer business processes during testing. • Develop and initiate new methods and processes for promoting project staff efficiency and effectiveness in providing customer service and in maintaining awareness of new developments in the field of child welfare services. • Manage and participate in special projects such as task forces and internal committees as needed. Act as agency specialist for inter-agency teams.

Design Analyst

Position Title	Design Analyst		
Position ID	20	**State Position Number**	
State Classification	Associate Information Systems Analyst (AISA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of a Data Processing Manager I (DPM I) of the Child Welfare Services New System (CWS-NS) Application Test/Design Team, the Associate Information Systems Analyst (AISA) acts as a consultant on child welfare services data processing and system design requirements, and on a regular basis effectively communicates with County and State program staff regarding those requirements.		
Activities	• As an application development expert, participate in, provide support to, or leads State and county Joint Application Requirements (JAR) and Joint Application Design (JAD) groups to identify complex program issues, requirements, and their technical resolutions. • Analyze and evaluate requests for system design modifications and propose application solutions and enhancements. • Assist the customers, stakeholders and vendor to understand each other's perspectives and needs. Recognizes and bring to management attention, any issues that may endanger the continuing success of CWS-NS. • Maintain an awareness of current and changing social work practices, policies, and mandates including new legislation or other outside events that may require changes to the CWS-NS. • Initiate requests for policy interpretation or clarification from oversight agencies or CDSS for changes. • Document and create the Design Requirements of the CWS-NS Application based on current social work practices. Provide this information to vendor in written form. • Monitor vendor activity to assure compliance with established Design Requirements.		

Position Title	Design Analyst
Activities	• Function as an oversight consultant to the vendor on design issues, proposed changes to the CWS-NS and contract deliverables. • Participation in vendor walk-through demonstrations of CWS-NS design proposals for adherence to Federal, State, and county statutory, regulatory, functional and design requirements. • Meet with internal and external entities to advise on the affect of proposed program changes on the CWS-NS to assure that changes are made in a timely manner and in accordance with internal and external due dates. • Participate as an active member of the CWS-NS Application Services Team. Contribute to team decisions, propose CWS-NS policies and procedures in the application area, and provide information on assignments to staff and management. • Act as consultant to other Unit members regarding application design, customers' requirements, and the change management process.

Senior Release Analyst

Position Title	Senior Release Analyst		
Position ID	35	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Services Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Application Manager, the Senior Information System Analyst (Sr. ISA) is a project leader for the web-based training system/applications and is expected to provide technical solutions related to training software system, estimating scope, schedule and tasks for development and maintenance of the web-based training tools.		
Activities	• Provide direction to the web team on the development of the training web-based applications. Working in collaboration with the training team's lead to incorporate training materials into the website and acting as back up for testing new web-based elements. Independently performs complex studies on the more difficult data retrieval technology projects and provide recommendations to the training team manager. Maintain, test, and debug the training databases. • Develop and maintain web and computer-based training applications and client/server interfaces by using front-end/back-end code to maintain consistency between the CWS-NS application and the training applications used in county social work training. This task is critical to training, without consistency between the application and the training tools social work training would be ineffective. Staff has extensive knowledge and expertise in multi-media development using, but not limited to, Macromedia Flash, Fireworks, ActionScript for Flash, Authorware, and video capture software. • Facilitate and participate in meetings with state, county, and vendor staff to exchange information and reach decisions relative to customer requests and needs. This includes project meetings to resolve project issues, walkthroughs for both requirement documents and design specifications. Provide recommends software and hardware changes to meet future software training needs.		

Release Analyst

Position Title	Release Analyst		
Position ID	30, 36	**State Position Number**	
State Classification	Associate Information Systems Analyst (AISA)		
Position Start Date	July 2015	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	Application Test/Design Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Application Manager, the Associate Information System Analysts (AISA) supports web-based training components for CWS-NS. The AISA performs activities associated with the design, development, implementation, and maintenance of CWS-NS web-based training tools. The AISA is required to work independently and in a team environment.		
Activities	• Plan, design, develop, and implement system changes for the maintenance of current training materials and tools housed in the Internet site of the CWS-NS Project. • Plan, design, build, test, and implement new web-based and computer-based training materials and applications using Microsoft Office products and web technologies such as Flash, Captivate, Authorware, HTML, CSS, ASP, VB Script, JavaScript, SQL, TSQL, and XML. • Gather and analyze customer requirements through Joint Training Requirements (JTR) and Joint Training Development (JTD) reviews that include county, state, and vendor staff on a regular basis and develop Internet related solutions to customer requirements. As the web-based training tools expert, make technical presentations to customers and Project staff as needed. • Provide training to CWS-NS staff on the training applications and use of training development software such as, but not limited to, MS Word, PowerPoint, Snag-It, and Macromedia Captivate. Ensure that CWS-NS training provides a uniform statewide view of how CWS-NS is utilized and how the information and data is recorded in the system. • Respond timely to stakeholder questions and issues by resolving technical issues related to training materials and web-based training applications. Research and recommend further automation of training processes, materials, and applications.		

Senior PMO Analyst

Position Title	Senior PMO Analyst		
Position ID	66	**State Position Number**	
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	PMO Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	The Senior PMO Analyst is responsible for performing tasks in support of the project management activities of the CWS-NS Project. The Senior PMO Analyst supports the project management processes of risk management, issue and action item management, schedule management, change management, cost management, and communications management and develops content for control agency documents.		
Activities	• Implements project management best practices from federal, State and industry standards in order that the CWS-NS Project can effectively and efficiently meet project goals and objectives. • Coordinates and participates in the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD). • Assists project management on risks or issues of quality assurance, risk management, planning, issue management, schedule management, and other project management disciplines by providing both required information and recommendations for action by management. • Analyzes all federal documents relative to the CWS-NS Project and develops the appropriate responses based on the analyst's knowledge of the project's strategic and tactical plans for future changes and their associated technical justifications. • Coordinates and leads schedule planning and update sessions for the project. • Maintains the CWS-NS Project Schedule and produces reports on scheduled activities.		

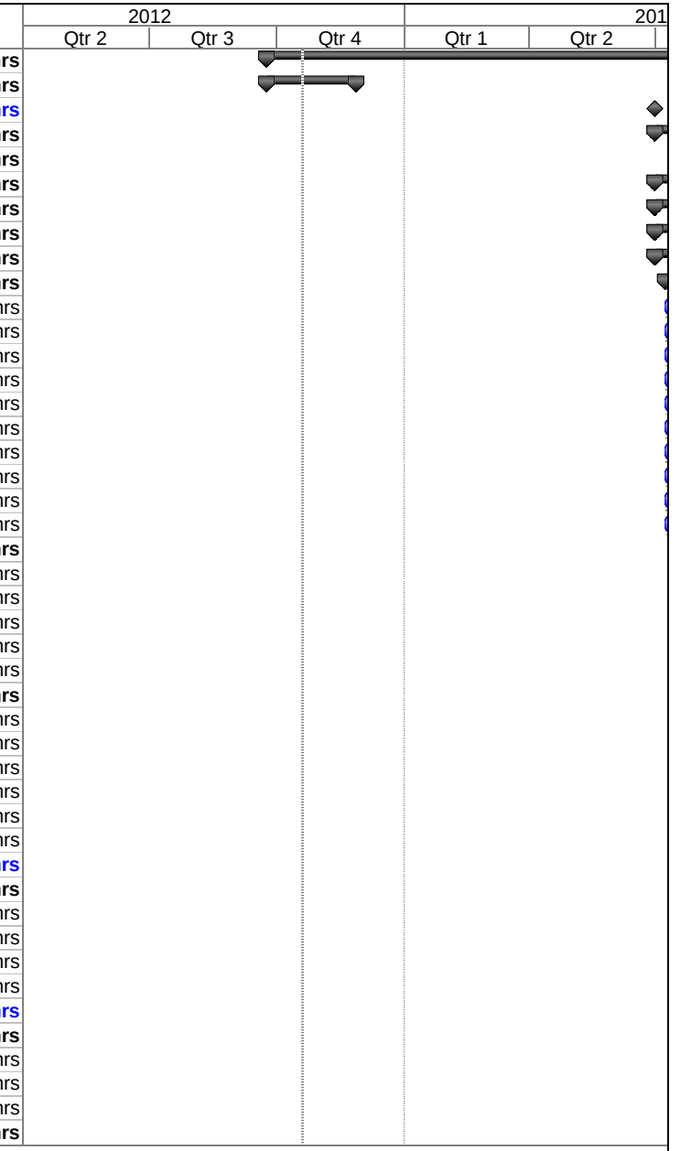
Position Title	Senior PMO Analyst
Activities	• Serves as the liaison between the CWS-NS Project and OSI facilities to deal with space planning and staff management issues. • Coordinates with OSI Human Resources to deal with issues regarding the hiring and housing of numerous staff additions (e.g. full complement of equipment, space, and furniture.) • Serves as the liaison between Project and OSI IT support services for all issues regarding new and existing staff. • Coordinates and leads process improvement sessions for improving internal project processes and for processes involving interactions with other organizations. • Creates and maintains the CWS-NS Lessons Learned repository. • Serves as a PMO member of the Evaluation Team for the evaluations of draft and final bids of the Systems Integrator related to project management components. • Assists in the preparation of reports and presentations on project activities and status for various stakeholders. • Assists in the preparation of reports and presentations on project activities and status for various stakeholders.

PMO Analyst

Position Title	PMO Analyst		
Position ID	64	**State Position Number**	
State Classification	Staff Information Systems Analyst (SISA)		
Position Start Date	Sept 2016	**Position End Date**	Permanent
Resource Organization	OSI, CWS-NS Project		
Organizational Group/Team	PMO Team		
Core Team	Yes	**Resource Category**	Project Staff
Position Description	Under the general direction of the Chief, Project Management, the Staff Information System Analyst (SISA) has the primary responsibility for managing the development of major reporting and approval documents for federal and State oversight agencies. The SISA will also manage correspondence with funding and oversight agencies and provide review of approval documents in support of the Child Welfare Services New System (CWS-NS).		
Activities	• Lead the development of complex documents and funding approval requests, such as the CWS-NS Annual Advance Planning Document Update and the Maintenance and Operation (M&O) Plan, which includes developing a project charter, plan and schedule to span the entire calendar year. Coordinate the completion of the schedule and the M&O Plan across the Office of Systems Integration (OSI) and the California Department of Social Services. Manage requests for approval of funding and documentation from federal and State oversight agencies, coordinating the activities of all relevant subject matter experts. • Provide feedback to the Chief, Project Management on project performance with regard to business objectives and the effectiveness of established processes. Report regularly and as needed to the Chief, Project Management on the progress of project activities against authorized schedules and scope documentation associated with each assigned project and initiative. Recommend mitigation against identified risks and resource management issues.		

Position Title	PMO Analyst
Activities	• Manage all correspondence with federal and State oversight agencies. Manage the review and updates of existing process documentation for this correspondence. Engage all public agencies that review or approve the CWS-NS activities and funding. Provide executive management with background and trends on the history of interactions with funding and approval agencies. Act as the subject matter expert for the OSI fiscal staff, providing program and financial information in support of preparing budget documents. • Collaborate with the Advance Planning Document (APD) unit to analyze and give recommendations on highly complex county APDs, Requests for Proposals, contracts, and service agreements for Information Technology (IT) equipment and services. Ensure compliance with state and federal control agencies' IT acquisition regulations, policies and procedures. Determine eligibility for federal Statewide Automated Child Welfare Information System (SACWIS) funding. • Create and maintain an electronic portfolio of current projects and planned initiatives for the CWS-NS M&O. Maintain the information as directed by the Chief, Project Management in formats that support executive decision-making.

ID	Task Name	Duration	Start	Finish	Cost	Work
1	**New System-Buy/Build**	**1698 days**	**Mon 9/24/12**	**Fri 9/29/17**	**$17,500,130**	**187,881 hrs**
2	**ACF Funding**	**58 days**	**Mon 9/24/12**	**Tue 11/27/12**	**$0**	**0 hrs**
6	**Project initiation**	**0 days**	**Mon 7/1/13**	**Mon 7/1/13**	**$0**	**0 hrs**
7	**Project Staffing**	**88 days**	**Mon 7/1/13**	**Wed 10/2/13**	**$0**	**0 hrs**
10	**Organizational Change Management**	**0 days**	**Tue 10/15/13**	**Tue 10/15/13**	**$0**	**0 hrs**
12	**Planning**	**168 days**	**Mon 7/1/13**	**Tue 12/31/13**	**$0**	**0 hrs**
15	**Procurement**	**666 days**	**Mon 7/1/13**	**Tue 6/30/15**	**$0**	**0 hrs**
16	**Develop RFP**	**449 days**	**Mon 7/1/13**	**Fri 10/31/14**	**$0**	**0 hrs**
17	**RFP Administration**	**278 days**	**Mon 7/1/13**	**Thu 5/1/14**	**$0**	**0 hrs**
22	**Develop Draft RFP**	**210 days**	**Mon 7/8/13**	**Mon 2/24/14**	**$0**	**0 hrs**
23	Section I - Introduction	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
24	Section II - Rules Governing Competition	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
25	Section III - Current Environment	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
26	Section IV - Proposed Environment	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
27	Section V - Administrative Requirements	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
28	Section VI - Solution Requirements	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
29	Section VIIA - Pricing Proposal	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
30	Section VIIB - Compensation Model	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
31	Section VIII - Proposal Format	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
32	Appendices	10 mons	Mon 7/8/13	Mon 2/24/14	$0	0 hrs
33	**RFP Reviews**	**73 days**	**Tue 2/25/14**	**Tue 5/13/14**	**$0**	**0 hrs**
34	OSI Review	13 days	Tue 2/25/14	Mon 3/10/14	$0	0 hrs
35	ACF Review	60 days	Mon 3/10/14	Tue 5/13/14	$0	0 hrs
36	CDSS Review	40 days	Mon 3/10/14	Tue 4/22/14	$0	0 hrs
37	Agency Review	40 days	Mon 3/10/14	Tue 4/22/14	$0	0 hrs
38	DGS Review	40 days	Mon 3/10/14	Tue 4/22/14	$0	0 hrs
39	**Update RFP from Reviews**	**67 days**	**Mon 3/10/14**	**Tue 5/20/14**	**$0**	**0 hrs**
40	OSI Review Updates	4 days	Mon 3/10/14	Thu 3/13/14	$0	0 hrs
41	ACF Review Updates	7 days	Tue 5/13/14	Tue 5/20/14	$0	0 hrs
42	CDSS Review Updates	7 days	Tue 4/22/14	Tue 4/29/14	$0	0 hrs
43	Agency Review Updates	7 days	Tue 4/22/14	Tue 4/29/14	$0	0 hrs
44	DGS Review Updates	7 days	Tue 4/22/14	Tue 4/29/14	$0	0 hrs
45	Communicate RFP Updates	7 days	Wed 5/21/14	Thu 5/29/14	$0	0 hrs
46	**RFP Development Completed**	**0 days**	**Wed 4/30/14**	**Wed 4/30/14**	**$0**	**0 hrs**
47	**RFP Approvals**	**15 days**	**Thu 5/29/14**	**Fri 6/13/14**	**$0**	**0 hrs**
48	ACF Approval	15 days	Thu 5/29/14	Fri 6/13/14	$0	0 hrs
49	CDSS Approval	15 days	Thu 5/29/14	Fri 6/13/14	$0	0 hrs
50	Agency Approval	15 days	Thu 5/29/14	Fri 6/13/14	$0	0 hrs
51	DGS Approval	15 days	Thu 5/29/14	Fri 6/13/14	$0	0 hrs
52	**RFP Approved by State and Federal Control Agencies**	**0 days**	**Fri 6/13/14**	**Fri 6/13/14**	**$0**	**0 hrs**
53	**Develop Evaluation Plan**	**131 days**	**Fri 6/13/14**	**Fri 10/31/14**	**$0**	**0 hrs**
54	Develop Review Evaluation Plan	2 days	Fri 6/13/14	Mon 6/16/14	$0	0 hrs
55	Prepare Evaluation Procedures Training Material	10 days	Tue 6/17/14	Thu 6/26/14	$0	0 hrs
56	Brief Evaluation Team on Draft RFP Evaluation Proce	5 days	Tue 10/28/14	Fri 10/31/14	$0	0 hrs
57	**Manage RFP**	**311 days**	**Fri 6/13/14**	**Wed 5/20/15**	**$0**	**0 hrs**



Project: Base Framework with Custom
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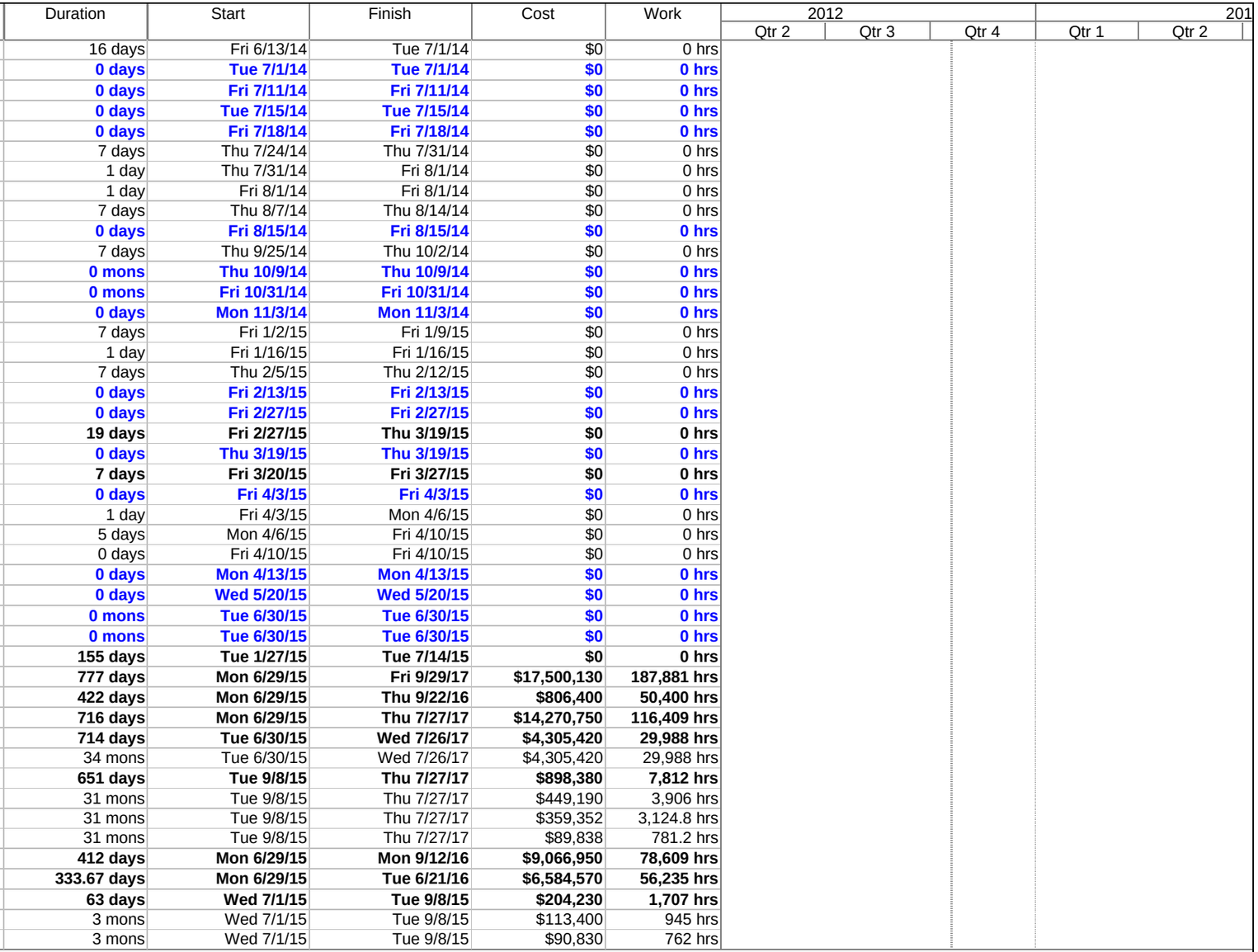
Task	Summary	Rolled Up Progress	Project Summary
Progress	Rolled Up Task	Split	Group By Summary
Milestone	Rolled Up Milestone	External Tasks	Deadline

ID	Task Name	Duration	Start	Finish	Cost	Work
58	Prepare RFP for Release	16 days	Fri 6/13/14	Tue 7/1/14	$0	0 hrs
59	**RFP Released**	**0 days**	**Tue 7/1/14**	**Tue 7/1/14**	**$0**	**0 hrs**
60	**Vendor Intent to Bid Responses Received**	**0 days**	**Fri 7/11/14**	**Fri 7/11/14**	**$0**	**0 hrs**
61	**Bidder's Conference Completed**	**0 days**	**Tue 7/15/14**	**Tue 7/15/14**	**$0**	**0 hrs**
62	**Last Day to Submit Questions for Q&A Set #1**	**0 days**	**Fri 7/18/14**	**Fri 7/18/14**	**$0**	**0 hrs**
63	State Presentations of the RFP to Bidders	7 days	Thu 7/24/14	Thu 7/31/14	$0	0 hrs
64	Confidential Discussions # 1	1 day	Thu 7/31/14	Fri 8/1/14	$0	0 hrs
65	State Presentation of the RFP Contract	1 day	Fri 8/1/14	Fri 8/1/14	$0	0 hrs
66	Confidential Discussions # 2	7 days	Thu 8/7/14	Thu 8/14/14	$0	0 hrs
67	**Begin Preparing Addendum # 1**	**0 days**	**Fri 8/15/14**	**Fri 8/15/14**	**$0**	**0 hrs**
68	Confidential Discussions # 3	7 days	Thu 9/25/14	Thu 10/2/14	$0	0 hrs
69	**Last Day to Protest Requirements**	**0 mons**	**Thu 10/9/14**	**Thu 10/9/14**	**$0**	**0 hrs**
70	**Draft Proposals Received**	**0 mons**	**Fri 10/31/14**	**Fri 10/31/14**	**$0**	**0 hrs**
71	**Begin Draft Proposal Evaluations**	**0 days**	**Mon 11/3/14**	**Mon 11/3/14**	**$0**	**0 hrs**
72	Confidential Discussions # 4	7 days	Fri 1/2/15	Fri 1/9/15	$0	0 hrs
73	Begin Preparing Addendum # 2	1 day	Fri 1/16/15	Fri 1/16/15	$0	0 hrs
74	Confidential Discussions # 5	7 days	Thu 2/5/15	Thu 2/12/15	$0	0 hrs
75	**Last Day to Submit Questions for Q&A Set #2**	**0 days**	**Fri 2/13/15**	**Fri 2/13/15**	**$0**	**0 hrs**
76	**Final Proposals Received**	**0 days**	**Fri 2/27/15**	**Fri 2/27/15**	**$0**	**0 hrs**
77	**Execute Final Proposal Evaluations**	**19 days**	**Fri 2/27/15**	**Thu 3/19/15**	**$0**	**0 hrs**
82	**Begin Vendor Solution Demonstrations**	**0 days**	**Thu 3/19/15**	**Thu 3/19/15**	**$0**	**0 hrs**
83	**Prepare Evaluation & Selection Report**	**7 days**	**Fri 3/20/15**	**Fri 3/27/15**	**$0**	**0 hrs**
91	**Public Cost Opening Completed**	**0 days**	**Fri 4/3/15**	**Fri 4/3/15**	**$0**	**0 hrs**
92	Update Evaluation Selection Report With Cost Data	1 day	Fri 4/3/15	Mon 4/6/15	$0	0 hrs
93	DGS Review of Updated Evaluation Selection Report	5 days	Mon 4/6/15	Fri 4/10/15	$0	0 hrs
94	Evaluation Selection Report Final Approval	0 days	Fri 4/10/15	Fri 4/10/15	$0	0 hrs
95	**Letter of Intent to Award**	**0 days**	**Mon 4/13/15**	**Mon 4/13/15**	**$0**	**0 hrs**
96	**Last Day to Protest Award**	**0 days**	**Wed 5/20/15**	**Wed 5/20/15**	**$0**	**0 hrs**
97	**Contract Awarded**	**0 mons**	**Tue 6/30/15**	**Tue 6/30/15**	**$0**	**0 hrs**
98	**Solution Delivery Start Date**	**0 mons**	**Tue 6/30/15**	**Tue 6/30/15**	**$0**	**0 hrs**
99	**Federal Document Management**	**155 days**	**Tue 1/27/15**	**Tue 7/14/15**	**$0**	**0 hrs**
126	**New System-DD&I**	**777 days**	**Mon 6/29/15**	**Fri 9/29/17**	**$17,500,130**	**187,881 hrs**
127	**State Staff Project & Process Mgt**	**422 days**	**Mon 6/29/15**	**Thu 9/22/16**	**$806,400**	**50,400 hrs**
137	**SI Contract Services (Phase 1)**	**716 days**	**Mon 6/29/15**	**Thu 7/27/17**	**$14,270,750**	**116,409 hrs**
138	**SI Project & Process Mgt**	**714 days**	**Tue 6/30/15**	**Wed 7/26/17**	**$4,305,420**	**29,988 hrs**
139	SI Project & Process Mgt	34 mons	Tue 6/30/15	Wed 7/26/17	$4,305,420	29,988 hrs
140	**Maintain Environments**	**651 days**	**Tue 9/8/15**	**Thu 7/27/17**	**$898,380**	**7,812 hrs**
141	Maintain Database	31 mons	Tue 9/8/15	Thu 7/27/17	$449,190	3,906 hrs
142	Maintain Data Warehouse	31 mons	Tue 9/8/15	Thu 7/27/17	$359,352	3,124.8 hrs
143	Provide Sandbox	31 mons	Tue 9/8/15	Thu 7/27/17	$89,838	781.2 hrs
144	**Core Services**	**412 days**	**Mon 6/29/15**	**Mon 9/12/16**	**$9,066,950**	**78,609 hrs**
145	**Design & Configuration**	**333.67 days**	**Mon 6/29/15**	**Tue 6/21/16**	**$6,584,570**	**56,235 hrs**
146	**Team 1**	**63 days**	**Wed 7/1/15**	**Tue 9/8/15**	**$204,230**	**1,707 hrs**
147	Application Architecture	3 mons	Wed 7/1/15	Tue 9/8/15	$113,400	945 hrs
148	Infrastructure	3 mons	Wed 7/1/15	Tue 9/8/15	$90,830	762 hrs



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Progress		Rolled Up Task		Split		Group By Summary	
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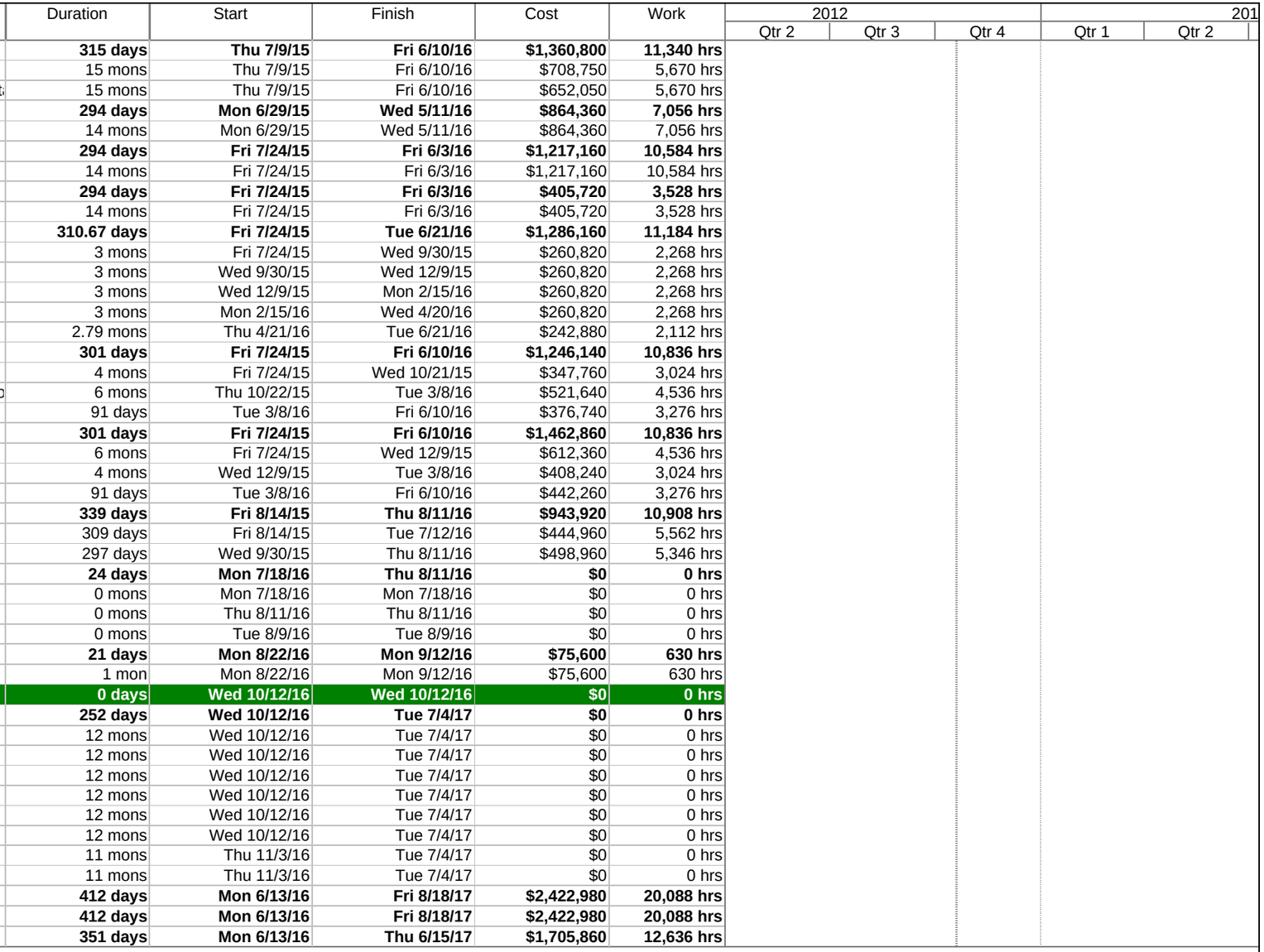
ID	Task Name	Duration	Start	Finish	Cost	Work
149	**Team 2**	**315 days**	**Thu 7/9/15**	**Fri 6/10/16**	**$1,360,800**	**11,340 hrs**
150	Convert and Populate CWS/CMS Data	15 mons	Thu 7/9/15	Fri 6/10/16	$708,750	5,670 hrs
151	Convert and Populate External Systems Dat	15 mons	Thu 7/9/15	Fri 6/10/16	$652,050	5,670 hrs
152	**Team 3**	**294 days**	**Mon 6/29/15**	**Wed 5/11/16**	**$864,360**	**7,056 hrs**
153	Reporting	14 mons	Mon 6/29/15	Wed 5/11/16	$864,360	7,056 hrs
154	**Team 4**	**294 days**	**Fri 7/24/15**	**Fri 6/3/16**	**$1,217,160**	**10,584 hrs**
155	Interfaces	14 mons	Fri 7/24/15	Fri 6/3/16	$1,217,160	10,584 hrs
156	**Team 5**	**294 days**	**Fri 7/24/15**	**Fri 6/3/16**	**$405,720**	**3,528 hrs**
157	Workflow	14 mons	Fri 7/24/15	Fri 6/3/16	$405,720	3,528 hrs
158	**Team 6**	**310.67 days**	**Fri 7/24/15**	**Tue 6/21/16**	**$1,286,160**	**11,184 hrs**
159	Intake Management	3 mons	Fri 7/24/15	Wed 9/30/15	$260,820	2,268 hrs
160	Court Processing	3 mons	Wed 9/30/15	Wed 12/9/15	$260,820	2,268 hrs
161	Eligibility	3 mons	Wed 12/9/15	Mon 2/15/16	$260,820	2,268 hrs
162	Administration	3 mons	Mon 2/15/16	Wed 4/20/16	$260,820	2,268 hrs
163	Resource Management	2.79 mons	Thu 4/21/16	Tue 6/21/16	$242,880	2,112 hrs
164	**Team 7**	**301 days**	**Fri 7/24/15**	**Fri 6/10/16**	**$1,246,140**	**10,836 hrs**
165	Case Management - Service / Case Plan	4 mons	Fri 7/24/15	Wed 10/21/15	$347,760	3,024 hrs
166	Case Management - Review, Evaluation, Mo	6 mons	Thu 10/22/15	Tue 3/8/16	$521,640	4,536 hrs
167	Financial Management	91 days	Tue 3/8/16	Fri 6/10/16	$376,740	3,276 hrs
168	**Custom Services**	**301 days**	**Fri 7/24/15**	**Fri 6/10/16**	**$1,462,860**	**10,836 hrs**
169	Increment 1	6 mons	Fri 7/24/15	Wed 12/9/15	$612,360	4,536 hrs
170	Increment 2	4 mons	Wed 12/9/15	Tue 3/8/16	$408,240	3,024 hrs
171	Increment 3	91 days	Tue 3/8/16	Fri 6/10/16	$442,260	3,276 hrs
172	**Readiness Support**	**339 days**	**Fri 8/14/15**	**Thu 8/11/16**	**$943,920**	**10,908 hrs**
173	Testing	309 days	Fri 8/14/15	Tue 7/12/16	$444,960	5,562 hrs
174	Training	297 days	Wed 9/30/15	Thu 8/11/16	$498,960	5,346 hrs
175	**Deployment Readiness**	**24 days**	**Mon 7/18/16**	**Thu 8/11/16**	**$0**	**0 hrs**
176	Testing Completed	0 mons	Mon 7/18/16	Mon 7/18/16	$0	0 hrs
177	Training Completed	0 mons	Thu 8/11/16	Thu 8/11/16	$0	0 hrs
178	UAT Completed	0 mons	Tue 8/9/16	Tue 8/9/16	$0	0 hrs
179	**Deployment**	**21 days**	**Mon 8/22/16**	**Mon 9/12/16**	**$75,600**	**630 hrs**
180	SI Core Services Release	1 mon	Mon 8/22/16	Mon 9/12/16	$75,600	630 hrs
181	**Decommission CWS/CMS**	**0 days**	**Wed 10/12/16**	**Wed 10/12/16**	**$0**	**0 hrs**
182	**M&O Staff Project & Process Mgt**	**252 days**	**Wed 10/12/16**	**Tue 7/4/17**	**$0**	**0 hrs**
183	State Project & Process Mgt	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
184	County Project & Process Support (Pre-UAT)	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
185	SI Project & Process Mgt	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
186	Oversight (CDSS)	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
187	Program (CDSS)	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
188	Preparation & Validation	12 mons	Wed 10/12/16	Tue 7/4/17	$0	0 hrs
189	Testing	11 mons	Thu 11/3/16	Tue 7/4/17	$0	0 hrs
190	Training	11 mons	Thu 11/3/16	Tue 7/4/17	$0	0 hrs
191	**SI Contract Services (Phase 2)**	**412 days**	**Mon 6/13/16**	**Fri 8/18/17**	**$2,422,980**	**20,088 hrs**
192	**Custom Services**	**412 days**	**Mon 6/13/16**	**Fri 8/18/17**	**$2,422,980**	**20,088 hrs**
193	**Custom Services DD&I**	**351 days**	**Mon 6/13/16**	**Thu 6/15/17**	**$1,705,860**	**12,636 hrs**



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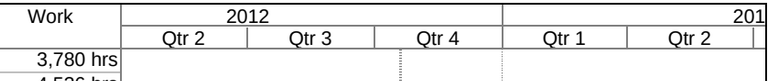
194		Increment 4	5 mons	Mon 6/13/16	Fri 9/30/16	$510,300	3,780 hrs
195		Increment 5	6 mons	Fri 9/30/16	Thu 2/9/17	$612,360	4,536 hrs
196		Increment 6	3 mons	Thu 2/9/17	Mon 4/17/17	$306,180	2,268 hrs
197		Increment 7	57 days	Tue 4/18/17	Thu 6/15/17	$277,020	2,052 hrs
198		**Deployment Readiness**	**390 days**	**Tue 7/5/16**	**Thu 8/17/17**	**$619,920**	**6,642 hrs**
199		Testing	359 days	Tue 7/5/16	Mon 7/17/17	$0	0 hrs
200		Training	369 days	Wed 7/27/16	Thu 8/17/17	$619,920	6,642 hrs
201		**Deployment**	**27 days**	**Fri 7/21/17**	**Fri 8/18/17**	**$97,200**	**810 hrs**
202		SI Custom Services Release	27 days	Fri 7/21/17	Fri 8/18/17	$97,200	810 hrs
203		**Project Closure**	**41 days**	**Thu 8/17/17**	**Fri 9/29/17**	**$0**	**984 hrs**
204		Project Closure	41 days	Thu 8/17/17	Fri 9/29/17	$0	984 hrs



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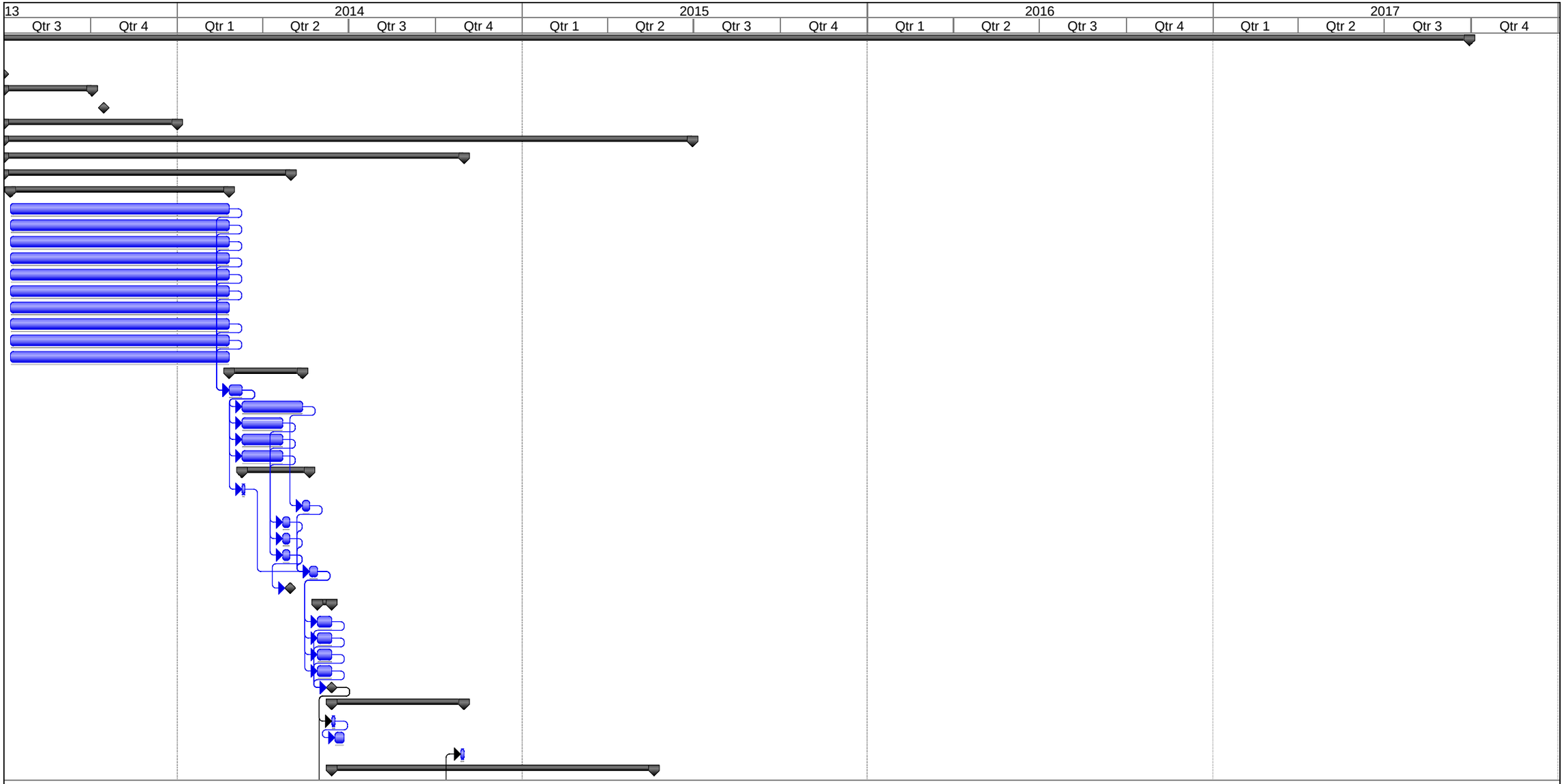

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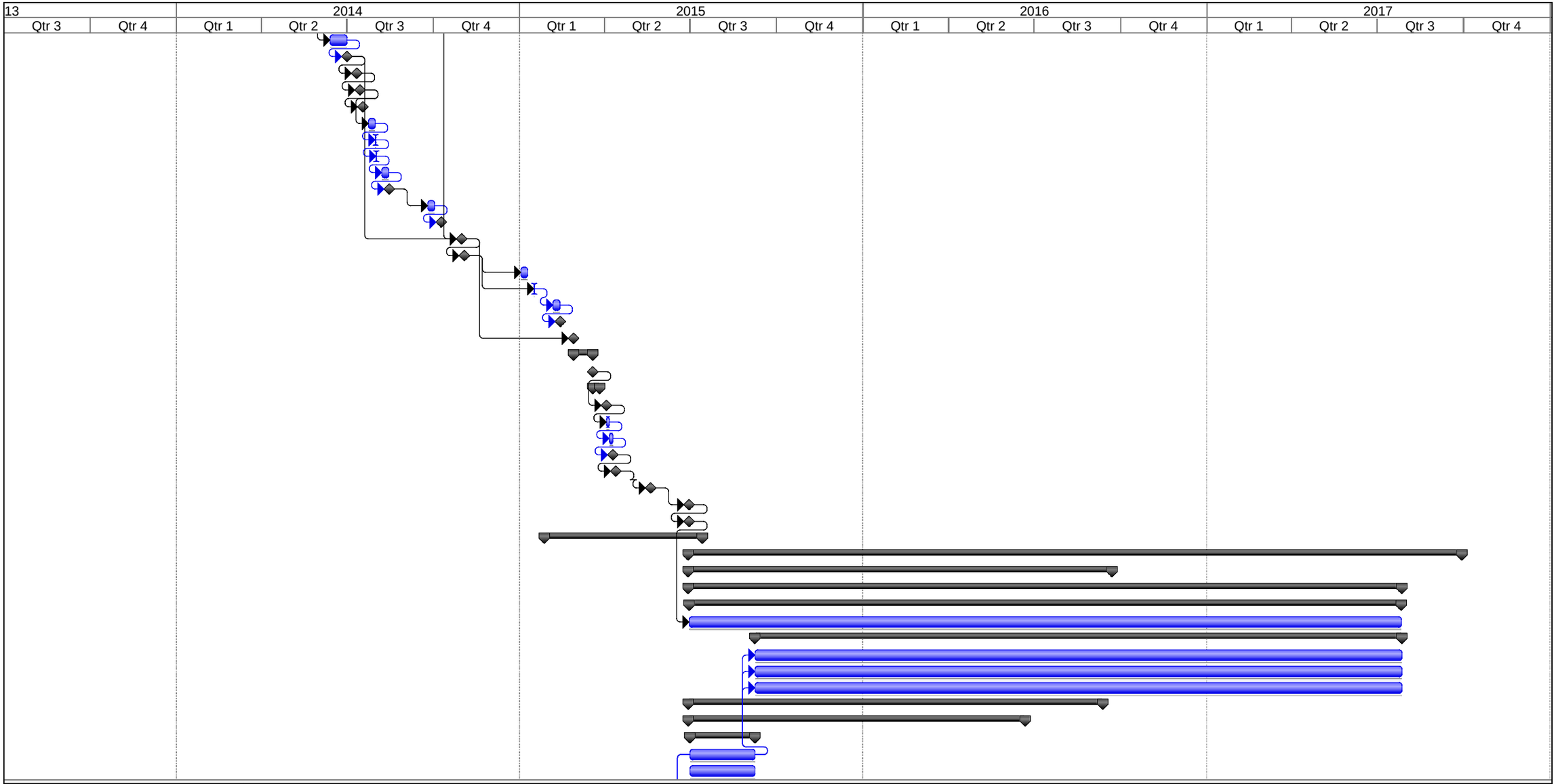

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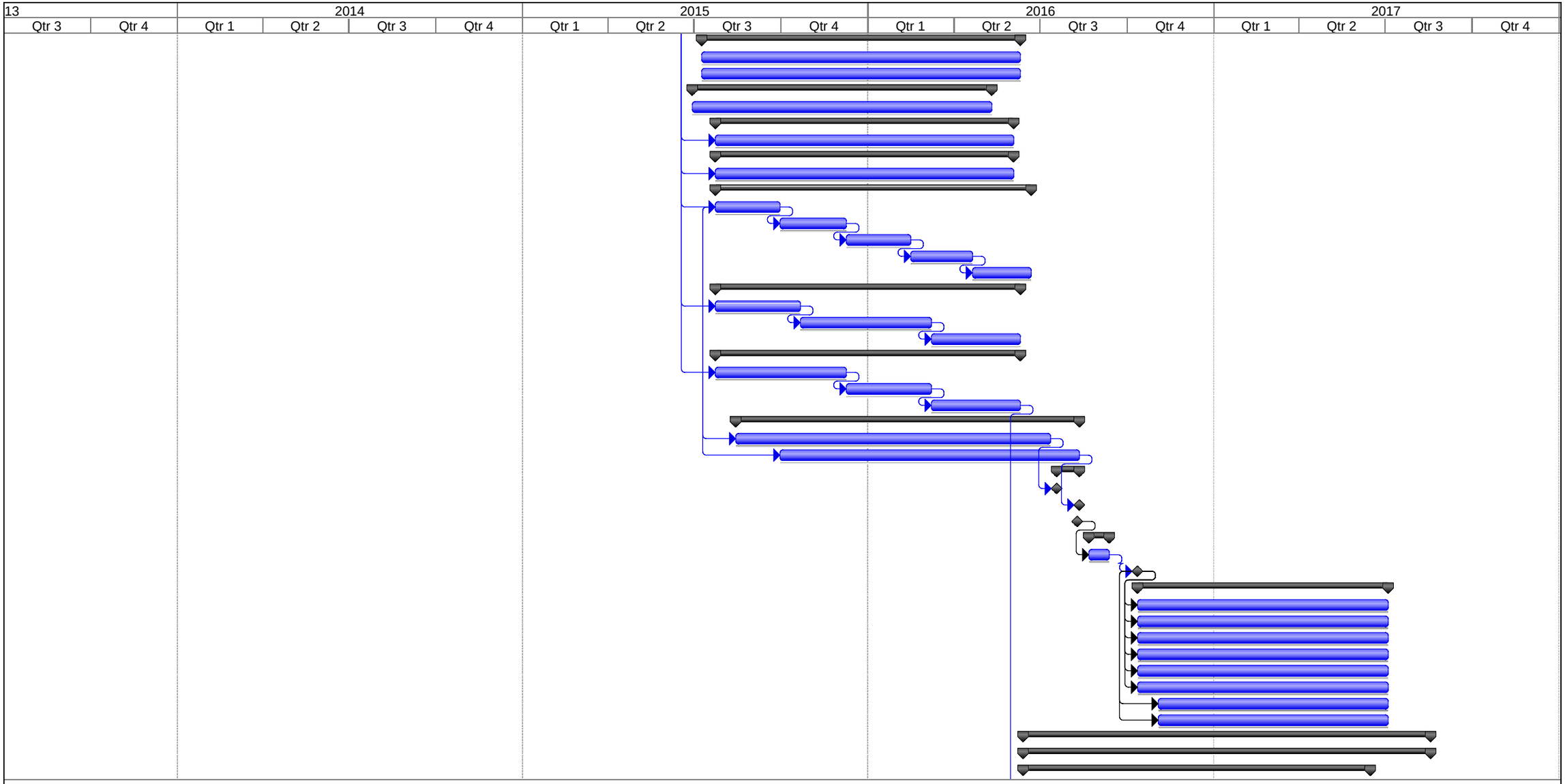

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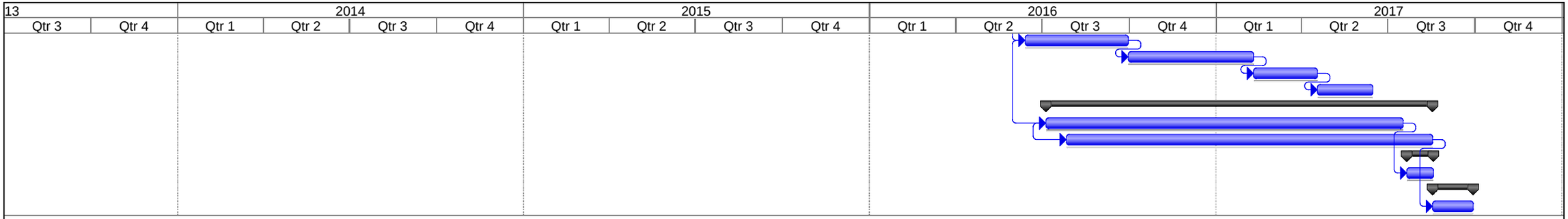

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Office of Systems Integration
"SERVING CALIFORNIA"

Child Welfare Services New System Project

Risk Management Plan

January 2012

Health and Human Services Agency, Office of Systems Integration

Revision History

REVISION HISTORY			
REVISION/WORKSITE #	DATE OF RELEASE	OWNER	SUMMARY OF CHANGES

Approvals

NAME	ROLE	DATE

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1. INTRODUCTION

1.1 Purpose

The purpose of this Risk Management Plan (RMP) is to describe the methodology for identifying, tracking, mitigating, and ultimately retiring the Child Welfare Services New System (CWS-NS) Project risks. This document defines the risk management roles and responsibilities of the CWS-NS Project team.

1.2 Scope

The scope of this document pertains to the CWS-NS Project and its internal and external risks. The risk management methodology identified in this document will be primarily used by CWS-NS Project and is to be used during the entire CWS-NS Project. Contractors delivering products under the CWS-NS Project will use this Risk Management Plan as the foundation for their Risk Management activities. Risk Management tailoring requests can be submitted by the Contractor(s) to CWS-NS Project for incorporation in the Risk Management Plan. CWS-NS Project and Contractor risks will be managed collaboratively, and will be tracked in a single risk repository.

1.3 References

1.3.1 Best Practices Website

For guidance on the Office of Systems Integration (OSI) risk management methodology refer to the OSI Best Practices website (BPWeb) (http://www.bestpractices.osi.ca.gov).

1.3.2 External References

- Project Management Book of Knowledge (PMBOK) Guide, 3rd Edition, Section 11 - Project Risk Management
- Office of the Chief Information Officer Information Technology Project Oversight Framework - Section 5: Risk Management and Escalation Procedures
- Institute of Electrical and Electronics Engineers (IEEE) Standard 1012-1998: IEEE Standard for Software Verification and Validation

1.3.3 Project Risk Database (PRD)

CWS-NS Project plans to utilize Risk Radar® as the project risk database. Detailed information about Risk Radar® is available in section 4.1Risk Radar.

1.4 Acronyms

BPWeb	*OSI Best Practices Website* http://www.bestpractices.osi.ca.gov
CHHSA	*California Health and Human Services Agency*
CWS-NS	*Child Welfare Services New System*
IEEE	*Institute of Electrical and Electronics Engineers*
IPOC	*Independent Project Oversight Contractor*
MTSII	*Management Tracking System II*
OSI	*Office of Systems Integration*
PMI	*Project Management Institute*
PMO	*Project Management Office*
PRD	*Project Risk Database*
RMP	*Risk Management Plan*
SEI	*Software Engineering Institute*
TA	*California Technology Agency*

1.5 Document Maintenance

This document will be reviewed annually and updated as needed, as the project proceeds through each phase of the system development life cycle.

This document contains a revision history log. When changes occur, the document's revision history log will reflect an updated version number as well as the date, the owner making the change, and change description will be recorded in the revision history log of the document.

2 PARTICIPANTS ROLES AND RESPONSIBILITIES

This section describes the roles and responsibilities of the CWS-NS Project staff.

2.1 Office of Systems Integration (OSI) – CWS-NS Project Members

The following table identifies the different roles of the CWS-NS Project and describes the responsibilities of each role.

Role	Summary of Role
Project Director	Reports to the sponsor, CDSS, and represents the sponsor on planning, tasks, and decision issues on the CWS-NS Project. Works with the Project Manager to plan, direct and oversee the day-to-day activities of the CWS-NS Project to fulfill its objectives. Serves as the central point of contact for CWS-NS Project stakeholders for communications and resolution of issues.
Project Manager	Responsible for coordinating and directing day-to-day activities of the CWS-NS Project to fulfill its objectives. Develops and maintains a collaborative relationship and reports to all CWS-NS Project stakeholders. Provides leadership in all CWS-NS Project activities, milestones and deliverables.
Functional Business Analysis and Review	Analysis and review of critical CWS business functions for the CWS-NS Project.
Procurement, Budget and Reporting	Develop procurement, budget, and reporting information/documentation for the CWS-NS Project. Prepare and coordinate all fiscal input. Track actual expenditures to budget and review and validate expenditures.
Technical and Systems Analysis and Review	Identify, analyze, and address all feasible technical alternatives for the CWS-NS Project. Perform tasks that result in the specification of the business and technical requirements.
County Consultant	Performing tasks that result in the development of the technical and business requirements. Provide expertise in the areas of program policy, program requirements, and business needs. Ensure that sponsorship and programmatic input is obtained and utilized during the CWS-NS Project.
Process and Standards Consultant	Provide collaborative strategy, process and product development support to the CWS-NS Project across business, technical and project management activities.

2.1.1 CWS-NS Project Stakeholders and Contractors

The role of CWS-NS Project team members, stakeholders and contractors is to participate in the Risk Management process by providing risk input and supporting risk mitigation planning and execution.

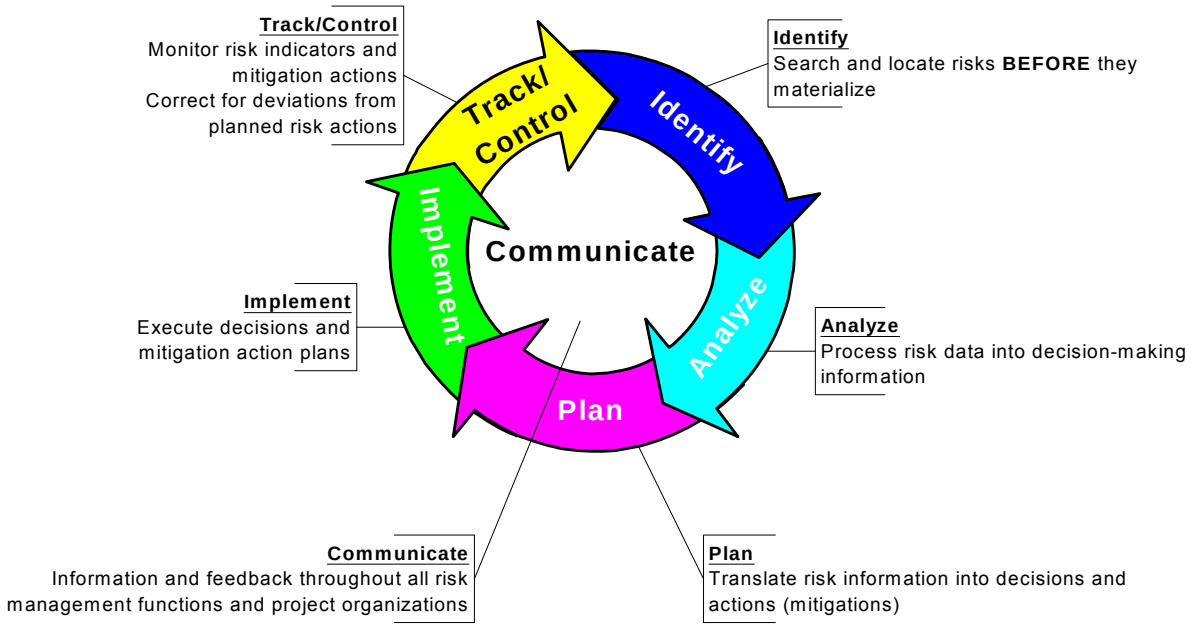
3 CWS-NS PROJECT RISK MANAGEMENT

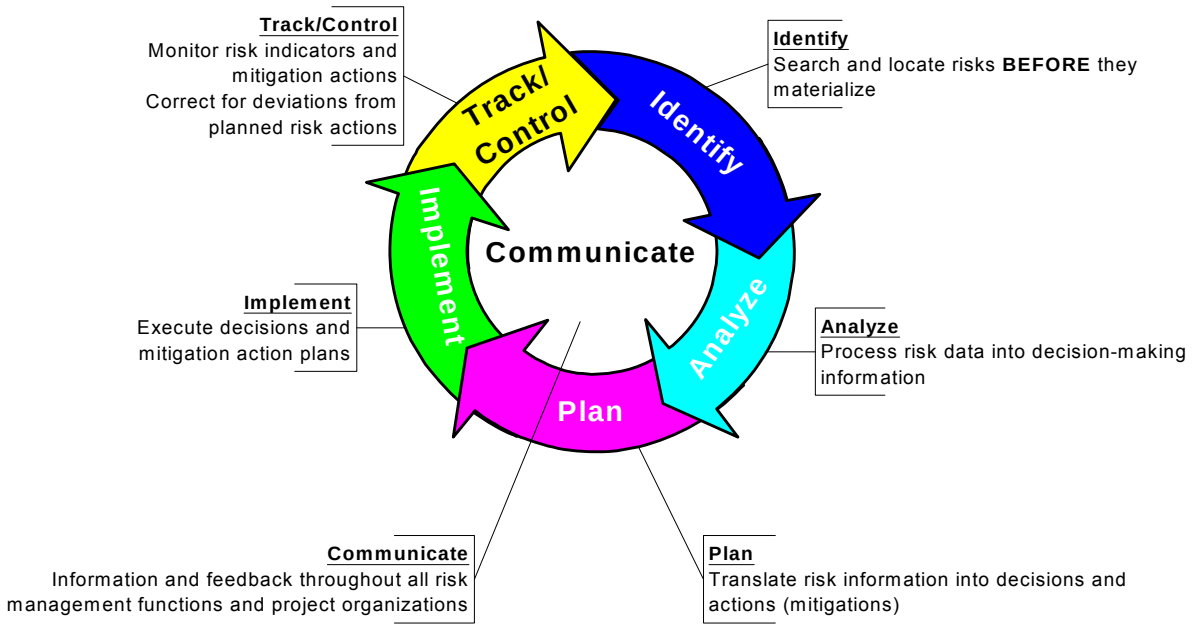
3.1 Risk Management Process

The CWS-NS Project Risk Management Process Model, depicted in Figure 1, summarizes CWS-NS Project Risk Management approach. This model identifies the high-level Risk Management process steps, which are:

- Step 1 – Identify
- Step 2 – Analyze
- Step 3 – Plan
- Step 4 – Implement
- Step 5 – Track and Control
- Continuous Process – Communicate

Figure 1: CWS-NS Project Risk Management Process Model

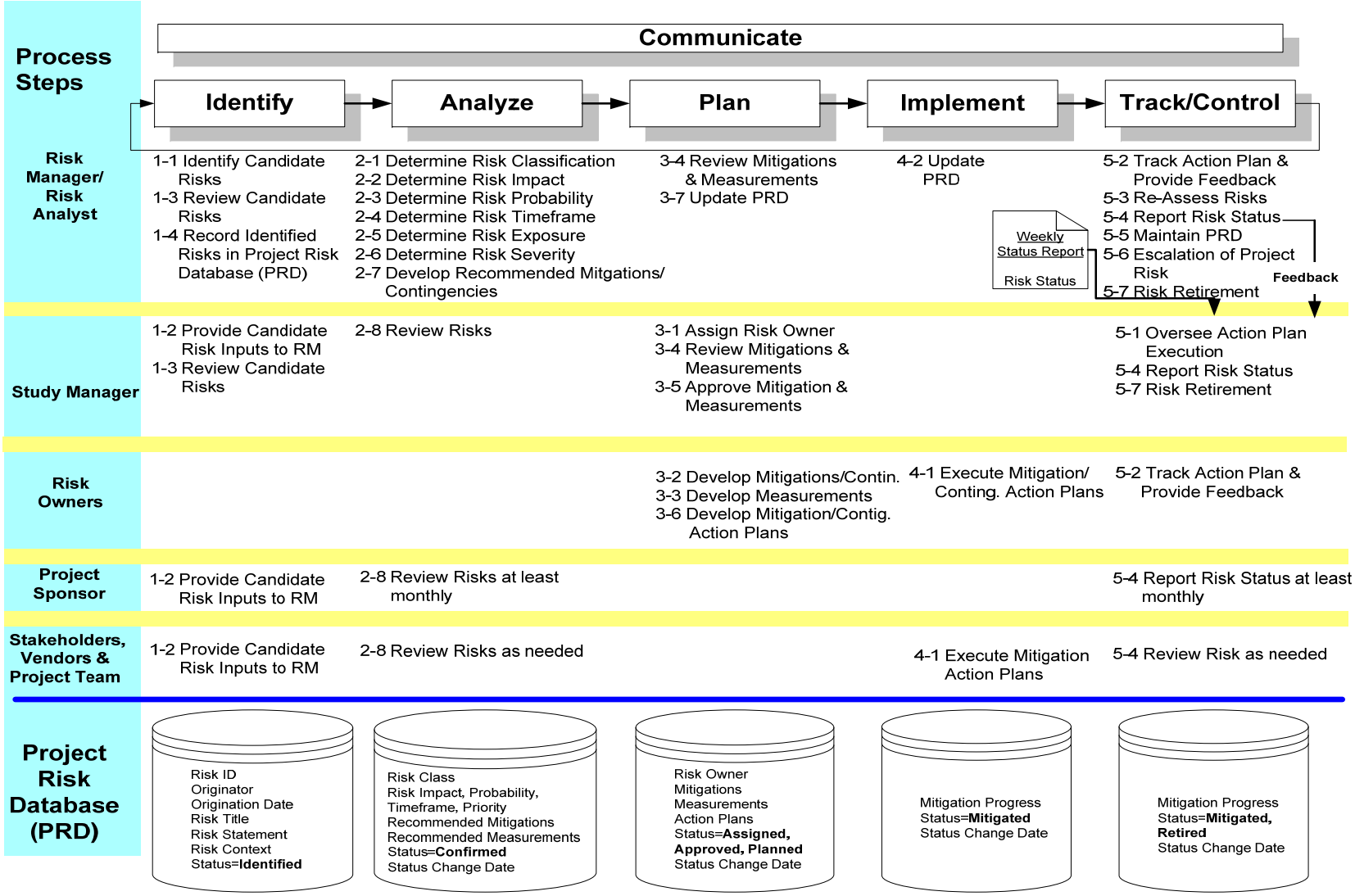




Communication is an essential part of the Risk Management and occurs at every step of the process among the CWS-NS Project.

The following model identifies the activities, roles and responsibilities for the CWS-NS Project Risk Management Process.

Figure 2: Risk Management Process



The following narrative further clarifies the process steps and their related activities. Each sub-heading corresponds to activities identified for process steps in the above model.

3.1.1 Step 1 – Identify

The objective of process Step 1 - Identify, is to identify risks that may occur during the CWS-NS Project. This is accomplished using the risk identification activity. Risk identification is the process where a concern is transformed into an identified risk. Identified risks are described and evaluated for potential impact to the CWS-NS Project. A detailed discussion of the identification process is provided in the sub-paragraphs below.

1-1 Identify Candidate Risks

Risk identification focuses on identification of potential events and/or outcomes which could impact the overall success of the project. Methods to identify risks may include: monitoring project activities, examining artifacts and documentation, observing, interviewing, polling, surveying, brainstorming, participating in discussions and meetings, conducting focus sessions, and applying oversight guidelines. These potential events and/or outcomes result in candidate risks.

1-2 Provide Candidate Risk Inputs to the Risk Manager/Risk Analyst

The CWS-NS Project participants (i.e., the CWS-NS Project team, stakeholders, and contractors) are the primary source for candidate risks. The methods used by the CWS-NS Project participants to submit candidate risks include, but are not limited to: verbal, email, or written format. Candidate risks are to be submitted to the Risk Manager using the *CWS-NS Project Risk Candidate Identification Form* provided in Appendix B. If this form is not used for submission, the Risk Manager/Risk Analyst will enter the risk data directly into Risk Radar® and provide a copy of the data entered to the originator for verification.

1-3 Review Candidate Risks

Each candidate risk submitted from a CWS-NS Project participant is reviewed and assessed to determine if it should become an “identified risk”. The Risk Manager/Risk Analyst will work with the risk originator and the CWS-NS Project Manager and/or designee to achieve consensus on whether or not a candidate risk should become an identified risk.

The candidate risk review is focused on validating the risk and capturing all appropriate information necessary to support risk analysis in process Step 2 - Analyze. “Validating the risk” involves understanding the definition of a risk (see Appendix G: Key Terms), and applying the Criteria for Risk Identification provided in Table 1 as a guide.

Table 1: Criteria for Risk Identification

1. **Is it a risk?** Is the event or outcome a risk? A risk is a **potential event or outcome** that would have an **impact** on the success of the project if the event or outcome were to occur. The following considerations support the question "*Is it a risk?*"
2. **Impact:** This step identifies consequences of the risk materializing. Is the impact of the potential risk event on the project significant enough to warrant inclusion in the Risk Management process? This is an initial, informal determination of the risk impact. A formal assessment of the risk impact is done in process Step 2 - Analyze.
3. **Potential Event or Outcome**. What is the minimum likelihood of the potential risk event or outcome occurring? This question considers the degree of uncertainty of the potential risk event or outcome. Risk events or outcomes which have already occurred represent issues, not risks. However, if there is little or no likelihood of the risk event or outcome occurring, the risk may not warrant inclusion in the Risk Management process. Potential risk events or outcomes that have an extremely low likelihood of occurrence may not require formal recognition and tracking by the CWS-NS Project Risk Management process. This is an initial, informal determination of the risk probability. A formal assessment of the risk probability is done in process Step 2 - Analyze.

Table 2: Risk Identification Components

COMPONENT	DESCRIPTION
Originator	Name and organization of the person who identified and submitted the candidate risk to the Risk Manager/Risk Analyst. This information will not be required for risk identification methods, which allow anonymous candidate risk input.
Origination Date	Date the candidate risk was either identified or submitted to the Risk Manager/Risk Analyst (will vary due to the risk identification method used).
Risk Title	A brief (phrase or one sentence) description of the candidate risk that captures the key subject of the candidate risk or summarizes the risk description.
Risk Description	Concise description of the candidate risk. Capturing a statement of risk includes considering and recording the event or result that could result in a possible loss to the project. A description of the perceived consequences resulting from the event or result is also included.

COMPONENT	DESCRIPTION
Risk Context	Detailed description of the candidate risk, including circumstances and supporting detail. Capturing the context of a risk involves recording information regarding the circumstances, events, and interrelationships within the project that supplements the risk statement. Context provides more detail than is presented by the risk description.

1-4 Record Identified Risks in the Project Risk Database

"Candidate risks" will be recorded in the Project Risk Database (PRD) while they are being analyzed. If after analysis, it is determined not to be a risk to the project, the candidate risk will be retired.

Candidate risks that become identified risks will be actively mitigated and tracked in the RD.

The Risk Analyst records the identified risk from process Step 1-3 in the RD as a discrete risk item. The RD description in Appendix B identifies which data elements are entered in process Step 1 – Identify.

3.1.2 Step 2 – Analyze

The objective of Step 2 – Analyze is to transform risk items into information that can be used to aid decision-making and to validate the risk information, using risk analysis. Risk analysis involves classification and prioritization of risk items, providing recommendations for mitigating and measuring risk items, and reviewing risk item information. The tools and methodologies used for analysis may include: the Project Risk Database, expert knowledge, and root cause analysis. The Risk Manager, Risk Analyst, the CWS-NS Project Manager and/or designee will review resulting risk analyses with the CWS-NS Project Sponsors and Stakeholders as required. The outputs of this step are retired identified risks or identified risks that have been classified and prioritized with recommended mitigations and measurements. A detailed discussion of the analysis process is provided in the sub-paragraphs below.

2-1 Verify/Determine Risk Classification

The Risk Owner with the assistance of the Risk Manager and Risk Analyst perform "root cause" analysis to determine risk class. Risk classes are categories for risk items. Risk classes are usually a higher level of abstraction derived from individual risk items. Individual risk items can belong to one or more classes. The level of abstraction should be tailored to meet the specific needs of the CWS-NS Project.

The SEI Risk Taxonomy from Taxonomy-Based *Risk Identification*, 1993, and the PMI A Guide to the Project Management Body of Knowledge, 2004, will be used as guidelines for identifying risk classes.

Identified CWS-NS Project Risk Classes are:

- Cost
- Schedule
- Scope
- Quality
- Human Resources
- Communications
- Procurement
- Integration

2-2 Verify/Determine Risk Impact

Determining the risk impact considers the consequences the risk would have on the project if the risk event or outcome occurs. Risk impact is a description of the anticipated consequences of a risk event or outcome occurring. The Criteria for Risk Impact in Table 3 is a guide for evaluating the risk consequences and determining the risk impact, expressed as “low“, “medium,” or “high”. In the Project Risk Database, impact is recorded as a number from 1 to 5. Impact values 1 and 2 correspond to a Low value, 3 is Medium, and 4 or 5 is High.

The determination of risk impact is a subjective, qualitative process which considers the criticality of internal and external factors within the specific context of the CWS-NS Project. The Risk Owner, with the assistance of the Risk Manager and Risk Analyst, will use the criteria identified in Table 3 and the CWS-NS Project Software Integrity Level Scheme provided in Appendix D as an initial guide for assigning risk impact, but will confirm the risk impact with the CWS-NS Project Manager or designee, Project Sponsor, and Stakeholders as required (step 2-8)

Table 3: Criteria for Risk Impact

IMPACT	CRITERIA
High (4 or 5 in Risk Radar®)	Risk consequences include one or more of the following: • Significant schedule delay. For example, delay in a critical path activity by more than 2 months. • Significant cost increase. For example, project budget or cost increase by more than 20 percent. • Significant technical change. For example, system performance decreases by more than 50 percent. • Significant resource change. For example, loss of more than 20 percent of personnel, or loss of more than 10 percent of key management personnel. • Significant political repercussions. For example, non-compliance with current legislation that involves significant penalties. • Significant user dissatisfaction. For example, more than 20 percent of users are extremely dissatisfied with more than 20 percent of system functions or performance characteristics.
Medium (3 in Risk Radar®)	Risk consequences include one or more of the following, but do not include any consequences identified as “High” above: • Moderate schedule delay. For example, delay in a critical path activity by 2-8 weeks, or delay in a non-critical path activity by more than 1 month. • Moderate cost increase. For example, project budget increase by 10-20 percent. • Moderate technical change. For example, system performance decreases by 20-50 percent. • Moderate resource change. For example, loss of 10-20 percent of personnel, or loss of 5-10 percent of key management personnel. • Moderate political repercussions. For example, moderate dissatisfaction of political parties or special interest groups. • Moderate user dissatisfaction. For example, 10-20 percent of users are extremely dissatisfied with 10-20 percent of system functions or performance characteristics, or more than 20 percent of users are moderately dissatisfied with more than 20 percent of system functions or performance characteristics. • Moderate client dissatisfaction. For example, payments to custodial parents are inaccurate.

IMPACT	CRITERIA
Low (1 or 2 in Risk Radar®)	Risk consequences include one or more of the following, but do not include any consequences identified as "High" or "Medium" above: • Minor schedule delay. For example, delay in a critical path activity by less than 2 weeks, or delay in a non-critical path activity by less than 1 month. • Minor cost increase. For example, project budget increase by less than 10 percent. • Minor technical change. For example, system performance decreases by less than 20 percent. • Minor resource change. For example, loss of less than 10 percent of personnel, or loss of less than 5 percent of key management personnel. • Minor political repercussions. For example, minor dissatisfaction of political parties or special interest groups. • Minor user dissatisfaction. For example, less than 20 percent of users are extremely dissatisfied with less than 20 percent of system functions or performance characteristics. • Minor client dissatisfaction. For example, overpayments to custodial parents.

2-3 Verify/Determine Risk Probability

Determining risk probability involves considering the likelihood of the risk occurrence. The Criteria for Risk Probability in Table 4 is a guide for the risk probability as high, medium, or low. In the Project Risk Database, probability is recorded as a percentage from 1 percent to 99 percent. The determination of risk probability is a subjective, qualitative process which considers the criticality of internal and external project factors within the specific context of the CWS-NS Project. The Risk Owner, with the assistance of the Risk Manager and Risk Analyst, will use the criteria identified in Table 4 as an initial guide for assigning risk probability, but will confirm the risk probability with the CWS-NS Project Manager or designee, Project Sponsors, or Stakeholders as required in step 2-8. The term "confidence level" is not a statistically based determination, but rather is based on expert judgment as defined in Appendix G: Key Terms.

Table 4: Criteria for Risk Probability

PROBABILITY	CRITERIA
High	It is almost certain or very likely that the risk will occur. There is approximately a 65 percent or higher confidence level that the risk will occur.
Medium	It is somewhat probable that the risk will occur. There is approximately a 35-65 percent confidence level that the risk will occur.
Low	It is unlikely or improbable that the risk will occur. There is approximately a less than 35 percent confidence level that the risk will occur.

2-4 Verify/Determine Risk Timeframe

The risk timeframe is the period of time within which the risk is expected to occur. The Criteria for Risk Timeframe in Table 5 is a guide for evaluating the period of time a risk is expected to occur and determining the risk timeframe, expressed in terms of short-term, medium-term, or long-term.

The determination of risk timeframe is a subjective, qualitative process which considers the criticality of internal and external project factors within the specific context of the CWS-NS Project. The Risk Owner, with the assistance of the Risk Manager and Risk Analyst, will use the criteria identified in Table 5 as an initial guide for assigning risk timeframe, but will confirm the risk timeframe with the CWS-NS Project Manager or designee, Project Sponsors, or Stakeholders as required Managers in steps 2 - 8.

Table 5: Criteria for Risk Timeframe

TIMEFRAME	CRITERIA
Short-Term	The risk is expected to occur within a very short period of time, e.g., ≤180 days.
Medium-Term	The risk is expected to occur within the near future, e.g., >180 and ≤360 days.
Long-Term	The risk is expected to occur in the far future, e.g., >360 days in the future.

2-5 Verify/Determine Risk Exposure

The risk exposure is derived from the risk attributes of impact and probability, and is used in conjunction with timeframe to prioritize risks for mitigation and escalation. Determine risk exposure for each risk from the intersection of that risk's impact and probability in Table 6. In the Project Risk Database (PRD), risk exposure is calculated by multiplying the impact (a number from 1 to 5) times the probability (0.01 to 0.99). Risk exposure categories fall into the following: low < 1.67, medium for values ≥ 1.67 and ≤ 3.34, and high > 3.34. The risk exposure value and the risk timeframe are then used to calculate the risk severity.

Table 6: Guide for Determination of Risk Exposure

Risk Exposure:	Probability			
Impact		High	Medium	Low
	High	High	High	Medium
	Medium	High	Medium	Low
	Low	Medium	Low	Low

2-6 Verify/Determine Risk Severity

The severity of the risk is a determination of the importance of the risk based upon 1) potential impact of the risk on the project, 2) the probability of occurrence, and 3) the risk timeframe. Table 7 contains a guide for evaluating risk impact, risk probability, and risk timeframe to determine the risk severity, and to prioritize the risks in terms of high, medium, or low.

The determination of risk severity is a subjective, qualitative process which considers the criticality of internal and external project factors within the specific context of the CWS-NS Project. The Risk Manager/Risk Analyst will use the criteria identified in Table 7 as an initial guide for assigning risk severity, but will confirm the risk severity with the CWS-NS Project Manager or designee in step 2-8.

Table 7: Guide for Determination of Risk Severity

Risk Severity:	Exposure			
Time Frame		High	Medium	Low
	Short-Term	High	High	Medium
	Medium-Term	High	Medium	Low
	Long-Term	Medium	Low	Low

2-7 Develop Recommended Mitigations and/or Contingencies

Develop recommended actions to mitigate the risk. Mitigation is a response to a risk, designed to reduce or eliminate the probability and/or impact of the risk:

- Elimination – removing the threat of the risk event or outcome occurring by eliminating the cause.
- Reduction – reducing the severity of the risk by either reducing the impact on the project, the probability of occurrence, or both.

If no mitigation actions are available, the risk impact is accepted:

- Acceptance – accepting the consequences of the risk event. Acceptance can be active (e.g., developing a contingency plan to be executed if the risk event occurs), or acceptance can be passive (e.g., taking no action, allowing the risk event to occur, and accepting the resulting consequences).

Recommended mitigation is developed by the Risk Owner with the assistance of the Risk Manager and Risk Analyst and will be reviewed and approved by the CWS-NS Project Manager or designee. The Recommended mitigation will be further defined in Step 3 – Plan after the review addressed by step 2-8. There may be multiple recommended mitigations identified for any single risk item.

The primary tool used to measure the successful implementation of risk mitigations will be the Project Risk Database (PRD). The PRD will readjust the ranking of the risk, as mitigation activities are implemented based upon the risk impact, probability, and time-frame criteria previously identified.

2-8 Review Risks with CWS-NS Project Manager, Project Sponsors, and Stakeholders

The CWS-NS Project Manager or designee, the Risk Manager, and the Risk Analyst review the risk with the Project Sponsors to validate all of the risk information identified at this time, including the Risk Class, Risk Impact, Risk Probability, Risk Timeframe, Risk Severity, and Recommended Mitigations. The Risk Review will include Stakeholders as needed. Risk information is revised based on input from the reviewers. The result of this step is to validate the risk as a “confirmed risk”.

3.1.3 Step 3 – Plan

The objective of Step 3 – Plan is to take ownership of risk mitigation. Risk planning involves assigning risk ownership, developing risk mitigations, contingencies, developing measurements, reviewing and approving risk mitigations and measurements, translating mitigations into action plans, and updating risk measures in

the RD. A detailed discussion of the planning process is provided in the sub-paragraphs below.

3-1 Assign Risk Owner

Identify the person to be assigned responsibility for developing risk mitigations, contingencies, measurements, mitigation action plans, and implementing and tracking mitigation action plan progress.

When someone external to the CWS-NS Project Team can control risk events or mitigation, a Risk Owner will be identified on the CWS-NS Project team and will be responsible for coordination and reporting on risk planning with the external contact.

3-2 Develop Mitigations and Contingencies

Develop the plan to eliminate, reduce, or accept the risk.

The Risk Owner is responsible for developing mitigations for the risk. Mitigations developed by the Risk Owner may be based on previously identified mitigations as identified in process Step 2-7 or may be developed independently.

The Risk Owner will also be required to develop contingency plans for each risk. These contingency plans will be executed as actions if the risk event occurs.

3-3 Develop Measurements

Develop the methods to track the risk mitigation actions and to measure the effectiveness of the actions. The Risk Owner is responsible for developing measurements of risk mitigation.

Contingency plan measurements will be focused on the effectiveness of the contingency plan in addressing the actual impacts of the event.

3-4 Review Mitigations, Contingencies and Measurements

The Risk Manager, Risk Analyst, and the CWS-NS Project Manager or designee, reviews the risk mitigations, contingencies, and measurements developed by the Risk Owner. Review by the Project Manager or designee determines if the risk has been assigned the appropriate probability, impact, and timeframe, and provides direction regarding whether the mitigation and contingency plans are appropriate for the severity of the risk. If needed, risk mitigations, contingencies and measurements are revised based on the review.

3-5 Approve Mitigations, Contingencies and Measurements

CWS-NS Project Manager or designee approves the risk mitigations, contingencies and measurements.

3-6 Develop Mitigation and Contingency Action Plans

The Risk Owner will develop detailed action plans to implement risk mitigations and contingencies. While the Risk Owner may delegate the action plan development, the responsibility for the mitigation/contingency plan remains with the assigned Risk Owner. As a result, the Risk Owner will remain the primary point of contact with the Risk Manager and Risk Analyst for tracking mitigation/ contingency action plans for the risk.

3-7 Update Project Risk Database (PRD)

The Risk Analyst updates the Project Risk Database (PRD) risk information based on risk planning, including Risk Owner, Risk Mitigations, Risk Measurements, and Mitigation and Contingency Action Plans developed by the Risk Owner.

3.1.4 Step 4 – Implement

The objective of Step 4 – Implement is to actively mitigate risks. Risk implementation involves the execution of risk mitigation action plans and recording risk information changes in the RD. A detailed discussion of the implementation process is provided in the sub-paragraphs below.

4-1 Execute Mitigation and Contingency Action Plans

The Risk Owner is responsible for the execution of the risk mitigation and contingency action plans. The CWS-NS Project Manager or designee will delegate and authorize the Risk Owners, as needed, to enable the execution of the action plans.

4-2 Update Project Risk Database (PRD)

The Risk Analyst updates the Project Risk Database (PRD) risk status information based on the implementation status of the action plans, as provided by the Risk Owner.

3.1.5 Step 5 – Track and Control

The objective of Step 5 – Track and Control is to insure that all steps of the Risk Management process are being followed and, as a result, risks are being mitigated and contingency plans are followed as necessary. Risk tracking and control involves the

oversight and tracking of risk mitigation and contingency action plan execution, re-assessment of risks, reporting risk status, and recording risk information changes in the Project Risk Database (PRD). Detailed discussions of the track and control processes are provided in the sub-paragraphs below.

5-1 Oversee Mitigation and Contingency Action Plan Execution

The CWS-NS Project Manager or designee is responsible for oversight of the execution of mitigation and contingency action plans for all risks identified in the Project Risk Database (PRD).

5-2 Track Action Plan Execution and Provide Feedback

The Risk Owner is responsible for tracking the execution of mitigation and contingency action plans and providing feedback to the Risk Manager and Risk Analyst on risk status. If mitigation or contingency plans require approval from the Project Manager in order for the associated activities to proceed, a Management Tracking System (MTSII) issue will be created. The issue shall reference the Risk ID number in the MTSII Description field so that reviews can reference the associated risk. The associated MTSII Issue number shall be documented in the Historical Events section of the risk record in the Project Risk Database (PRD). The risk status will continue to be monitored and updated while the issue is being addressed and resolved. Risk mitigation or contingency activities will continue until the risk has been retired.

5-3 Re-Assess Risks

The Risk Manager and Risk Analyst will re-assess the risk information in the Project Risk Database (PRD) to determine if any changes are needed, e.g., risk severity and timeframe. At a minimum, re-assessment of risk information in the RD will be performed on a monthly basis; however it may be performed more frequently on an as-needed basis.

5-4 Report Risk Status

The Risk Analyst will report risk status as part of the weekly CWS-NS Project Risk Reports (summary and detailed ranked risks) to the Project Manager, Functional Managers, and other designated parties. Risk status reporting will focus on high severity risks. Information presented will include the status of risk mitigation and contingency action plans, changes in risk severity for known risks, new risks identified, and any risks scheduled for retirement. At a minimum, the Risk Manager and Risk Analyst will meet with the Project Manager to review all risks on a monthly basis. If required by TA, the Independent Project Oversight Contractor (IPOC) will report High Severity/High Criticality project risks on a monthly basis to the OSI, CHHSA, and TA as part of its Independent Project Oversight Report.

5-5 Maintain the Project Risk Database (PRD)

The Risk Analyst will maintain the risk information in the Project Risk Database (PRD). A description of data elements to be maintained in the Project Risk Database (PRD) is provided in Appendix B.

5-6 Escalation of Project Risk

The determination of risk escalation is tailored from the TA *Information Technology Project Oversight Framework* (Section 2). Determination of risk escalation is a function of project criticality and risk severity. Not all risks require escalation, and escalation of project risks will not necessarily result in a change in project criticality. CWS-NS Project will use Table 8 as a guide in determining the escalation of individual risks.

Table 8: Guide for Determination of Risk Escalation

Risk Escalation	Risk Severity			
Project Criticality		High	Medium	Low
	High	CHHSA	CHHSA	Sponsor/OSI
	Medium	CHHSA	CHHSA	Sponsor/OSI
	Low	CHHSA	Sponsor/OSI	Sponsor/OSI

The weekly CWS-NS Project Risk Reports will be used to report all risks (Low, Medium and High Severity) to the Project Sponsor. These risks are discussed at the monthly Executive Committee Meeting. The CWS-NS Project Manager is a member of the Office of Systems Integration (OSI) Executive Team. During the weekly OSI Executive Team Meeting, the OSI Executive Team will use these reports to escalate enterprise level risks (for example, risks that affect more than one OSI project). Risks that have a High Severity determination as well as Medium Severity/High Criticality and Medium Severity/Medium Criticality risks are reported and escalated to the CHHSA by the OSI Director at the monthly meeting.

5-7 Risk Retirement

When a risk is ready for retirement the Risk Analyst will send a risk closure analysis to the Risk Manager for review. The Risk Manager will forward the risk

closure analysis along with his own analysis to the Project Manager for final approval. Once approved the risk is updated and retired in the Project Risk Database (PRD).

Communicate – Continuous Process:

Effective risk management requires ongoing communication throughout the project life cycle. CWS-NS Project will include communication of risks as an ongoing activity throughout each of the above 5 steps (Identify, Analyze, Plan, Implement, Track and Control). As the primary contact between the Risk Management process and the Risk Owners, the Risk Manager and Risk Analyst bear the responsibility of ensuring that members of the team understand the value of their input in the process and feel free to submit risks in a forum and format with which they are most comfortable.

4 RISK MANAGEMENT TOOL – PROJECT RISK DATABASE (PRD)

4.1 Risk Radar®

The CWS-NS Project uses Risk Radar® to help manage risks. Risk Radar® is a risk management database designed to identify, organize, prioritize, track and display risks. The application provides standard database functions to add and delete risks, as well as specialized functions for prioritizing and retiring risks, as well as maintain a log of historical events. Management uses this tool to characterize, rank and communicate risks.

4.2 Risk Categorization

4.2.1 Risk Area

CWS-NS Project tracks risk area(s) using the three areas of cost, schedule and performance.

4.2.2 Current Status

Risks will be assigned a status in order to facilitate review of risks that may need to have the mitigation and/or contingency plan implemented. The risk manager assigns each risk to one of the following categories:

- *Candidate Risk* – possible risk has been identified, but full analysis has not been done to determine if it should be tracked and mitigated.
- *Identified Risk* – A candidate risk becomes an identified risk when it has been determined that it can be described and measured. Then the identified risk is input to the CWS-NS Project Risk Management process and recorded in the CWS-NS Project Risk Database (PRD) as a risk item.

- *Confirmed Risk* – risk has been fully analyzed and determined to be a true risk to the project. Mitigation and contingency plans have been developed. The risk will be monitored or tracked on an ongoing basis.
- *Watch* – risk will be reviewed frequently to determine if the risk needs to be mitigated, retired, or if the risk is out of management's sphere of influence but outcome needs to be recorded.
- *Retired* – risk is either no longer applicable or the risk has been closed.

4.2.3 Control

In order to track those risks under CWS-NS Project management's oversight verses those risks that are external, risks will be identified by one of the following control categories:

- *External* – control of the risk is outside the oversight/authority of OSI and CDSS management.
- *Internal* – control of the risk is the responsibility of OSI and/or CDSS management.
- *Internal and External* – OSI and/or CDSS management and an external entity are responsible for control of the risk.

4.3 Risk Ratings

The following ratings will be assigned to each risk:

- *Probability* – likelihood (percentage) the risk will occur over the identified time frame. (1 percent is very low, 99 percent is very high.)
- *Impact* – the impact the risk will have if the risk occurs. (Impact is rated as: 1=very low, 2=low, 3=moderate, 4=high and 5=very high.)
- *Exposure* – Risk Radar® computes the exposure rating (probability times impact; .01=very low, 4.95=very high).
- *Impact Time Frame* – earliest and latest dates of time frame over which the risk could occur (beginning and end). Risk Radar® also measures the number of *Days to Impact Time Frame*.
- *Impact Horizon* – customized values used to compare the impact time frame of a risk to classify its impact horizon as:
  - Short-term (potential impact in less than 180 days).
  - Medium-term (potential impact in 180 to 360 days).
  - Long-term (potential impact beyond 360 days).

5 CLOSEOUT

5.1 Risk Review

At the completion of or retirement of the system, the Risk Manager will lead a final risk review to document the final status and results of mitigation and contingency actions. The results of the risk actions (whether successful or unsuccessful) will be documented in the CWS-NS Project RD.

5.2 Lessons Learned

The Risk Manager and the CWS-NS Project management team will develop a set of Lessons Learned based on the results of the final risk review. The results of the lessons learned sessions will be shared with the OSI Project Management Office for inclusion in office-level lessons learned and the OSI Risk List, as appropriate.

5.3 Archive and Storage

Once the final documentation of risks and outcomes is completed, the CWS-NS Project RD will be archived and stored with all other related documentation.

APPENDICES

APPENDIX A : LIST OF SEI RISK TAXONOMY QUESTIONNAIRE TOPICS

A. Product Engineering	B. Development Environment	C. Program Constraints
1. Requirements	1. Development Process	1. Resources
a. Stability	a. Formality	a. Schedule
b. Completeness	b. Suitability	b. Staff
c. Clarity	c. Process Control	c. Budget
d. Validity	d. Familiarity	d. Facilities
e. Feasibility	e. Product Control	2. Contract
f. Precedent	2. Development System	a. Type of Contract
g. Scale	a. Capacity	b. Restrictions
2. Design	b. Suitability	c. Dependencies
a. Functionality	c. Usability	3. Program Interfaces
b. Difficulty	d. Familiarity	a. Customer
c. Interfaces	e. Reliability	b. Associate Contractors
d. Performance	f. System Support	c. Subcontractors
e. Testability	g. Deliverability	d. Prime Contractor
f. Hardware Constraints	3. Management Process	e. Corporate Management
g. Non-Developmental Software	a. Planning	f. Vendors
3. Code and Unit Test	b. Project Organization	g. Politics
a. Feasibility	c. Management Experience	
b. Testing	d. Program Interfaces	
c. Coding/Implementation	4. Management Methods	
4. Integration and Test	a. Monitoring	
a. Environment	b. Personnel Management	
b. Product	c. Quality Assurance	
c. System	d. Configuration Management	
5. Engineering Specialties	5. Work Environment	
a. Maintainability	a. Quality Attitude	
b. Reliability	b. Cooperation	
c. Safety	c. Communication	
d. Security	d. Morale	
e. Human Factors		
f. Specifications		

APPENDIX B : CWS-NS PROJECT RISK DATABASE (PRD) DATA ELEMENTS

ID Field (Automatic)

The ID is the unique identifier for a risk. This ID number is set automatically by the system when new risks are added. It cannot be modified once the new risk has been created.

Title Field

A Short title so the risk can be easily identified in tables and reports.

Rank Field

This is the current priority ranking of the risk relative to all other risks. Rank 1 is highest priority, rank 2 next, and so on. Although a priority ranking can be assigned here, the RD is designed to help set this value using the impact and probability parameters assigned to each risk. New risks are automatically assigned a rank of zero, which will temporarily place them at the top of the priority ranking until the rank is properly assigned. The “Out of” field shows the total number of active risks in the database. The Prioritize Risks screen should always be used to maintain the proper rank of risks. If the risk ranking is not carefully maintained with the Prioritize Risks screen, it is possible for more than one risk to have the same rank number or for there to be missing rank numbers or inappropriate rank numbers (i.e. zero).

Description Field

A full description of the risk and its impact should be given here including the risk context as described in Table 3. Do not include information covered in the other fields.

Status Field

This shows the current status of this risk in the risk management process. For instance, it may indicate whether it is actively being mitigated, being watched, on hold, etc. The options for the pull-down menu are set in the Set Up Project screen.

Probability Field (%)

This contains the current estimate for the probability (in percent) that the risk will occur over the impact time frame (see below). Values from 1 percent (extremely unlikely) to 99 percent (almost certain) are valid. This value will be based on professional judgment and/or statistical analysis. This value will likely change over time as the risk is actively managed. Note that a risk cannot have a probability of 0 percent because that would mean the impact of the risk could never materialize, which would by definition mean it is not a risk!

Impact Field (1 to 5)

This represents the current estimate for the impact the risk will have if it materializes. Like probability above, this will be based on professional judgment and the criteria defined in the Software Integrity Level Scheme (Appendix D) and the Criteria for Risk Impact (Table 4). An impact is an undesirable consequence, which would negatively influence the project. The values of 1 to 5 represent a ranking of the impact: 1=very low, 2=low, 3=moderate, 4=high, 5=very high. Since there are many impacts a risk might have on a project, such as greater costs, delayed schedule, reduced quality, and so forth, guidelines should be established for assigning a consistent impact category for different risks and projects. As an example, impact costs of less than $1000 correspond to an impact of 1; $1,000 to $10,000 an impact of 2; etc. The impact value will likely change over time as the risk is actively managed. The primary purpose of the probability and impact numbers are to help rank risks relative to one another. The absolute value of these numbers is not as important as their consistent use over the life of the project. Activities that result in significant risks to more than one area of the program such as cost and performance may result in the generation of two separate risks in the database with different mitigation or contingency plans.

Risk Exposure Display

This is not a data entry field, but a calculated value, where risk exposure equals probability multiplied by impact. Risk exposure is a standard quantitative measure of risk, and is used to compare risks with one another. Because of the limits on the ranges of both probability and impact, risk exposure will have a value between .01 (very low exposure) and 4.95 (very high exposure). The risk exposure and impact time frame are the primary means for ranking the individual risks identified in the RD.

Impact Time Frame Fields

The first (Impact Start Date) field is the earliest date the risk impact could materialize and the second field (Impact End Date) is the latest date it could materialize. Dates must be entered in any of the standard formats such as “3/1/00.” Note that the keyword **“BOP”,** meaning **Beginning Of Project**, can be placed in the first field and the keyword **“EOP”,** meaning **End Of Project**, can be placed in the second field. These keywords ease data entry because assigning specific dates for risks that cover these time frames is not necessary. For instance, to describe a risk that could occur anytime during the life of the project, such as “The project leader might quit,” enter “BOP” in the first field and “EOP” in the second.

Days to Impact Time Frame Display

This represents the number of days from the present to the impact time frame (see above). If the earliest and latest dates of the impact time frame are both in the future, this number will be positive and will be the number of days between now and the earliest impact time frame date. If the impact time frame spans the present, this number will be zero. If both the earliest and latest dates of the impact time frame are in the past, the number will be negative and will be the number of days between now and the latest date. An active risk should never have a negative value in this field, which means the risk is in the past and is therefore no longer a threat. Negative numbers mean the risk needs to be examined more closely, either to retire it or change its impact time frame.

Impact Horizon Display

Using the definitions set up in the Set Up Project screen, the program will use the Days to Impact Time Frame value to assign the risk to an impact horizon category. The Criteria for Risk Timeframe (Table 6) provides the timeframe values used on this project.

- NEAR represents short-term
- MID represents medium-term
- FAR represents long-term
- PAST represents risks that are no longer a threat

Date Identified Field

This is the date the risk was first identified. Only standard date formatted text, such as “3/1/00” or “1-Mar-00,” are valid as inputs.

Responsible Person Field

This is the person responsible for tracking and/or managing the risk mitigation or contingency plans.

Program/Functional Area Field

Describe project areas or components that are affected by the risk here. This might include specific products or configuration items that would be impacted if the risk were to materialize.

Affected Project Phase Field

Describe development phases (such as requirements or design), work packages, or work activity network components that identify which phase would be impacted if the risk were to materialize.

Risk Impact Area Field

Use this field to assign the risk to a risk category. The pull-down menu provides a pre-defined set of Risk Area categories (see Set Up Project screen for setting the categories in the pull-down list).

Risk Control Field

Use this field to indicate whether the source of the risk is internal or external to the organization (see the Set Up Project screen for setting the categories in the pull-down list).

Contingency Plan Field

The contingency plan is the set of actions to take should the risk materialize. If the plan is extensive, this will likely point to another document.

Risk Mitigation Description Field

Use this field to describe the approach or other background information regarding the mitigation efforts that will be taken on the risk. This field can be used in conjunction with the Risk Mitigation Steps Table to describe the intention of the mitigation efforts and how they will be accomplished.

Risk Mitigation Steps Table

This table allows specifying steps to take in mitigating the risk. Each step contains the following:

Step Number - Number that is user-defined, that will probably start at 1 and increment upwards.

Description - A short description of the actions to be taken.

Person - The person responsible for carrying out these actions.

Due Date - Date the step should be completed.

Completed - A check mark to indicate if the step was completed successfully.

The steps in this table are sorted according to step number when first viewed. Therefore, mitigation steps can be reordered or new steps inserted by changing step numbers, leaving this risk and coming back to it. (To view full text in truncated text boxes in the RD, the left and right keyboard scroll buttons must be used to navigate.)

Historical Events Log Table

This table allows recording events about the risk that might be useful in evaluating its importance or in justifying specific actions that were taken. For instance, external events might occur that caused a change to the impact or probability of the risk. This historical log can serve as a repository of thoughts and decisions that affect how the risk was perceived, mitigated, and hopefully retired. Each event contains the following:

Date - Pertinent date for information, such as the date an event occurred, the date a decision was made, etc.

Person - Person most knowledgeable about the event.

Description - A short description of the event.

The historical events in this table are sorted according to date when this risk was first viewed.

APPENDIX C : CWS-NS PROJECT RISK CANDIDATE IDENTIFICATION FORM

Originator: _____ **Origination Date:** _____

Risk Title: _____

Risk Description

Concern:

Consequences:

Risk Context

Date Identified: _____ **Impact to Critical Path:** ☐ Yes ☐ No

Probability of Risk: _____ **(percent)** **Impact to Project:** _____ (1=low, 5=high)

Impact Start Date: _____ **Impact End Date:** _____

Responsible Person: _____

Program Area: _____

Affected Project Phase: _____

Risk Areas:

☐ Cost, Describe: _____

☐ Schedule, Describe: _____

☐ Performance, Describe: _____

☐ Other, Describe: _____

Risk Control: ☐ Internal, ☐ External, or ☐ Internal & External

Current Status: ☒ Candidate Risk

Recommended Mitigations

Recommended Contingencies

Other Noted Historical Events

APPENDIX D : CWS-NS PROJECT SOFTWARE INTEGRITY LEVEL SCHEME

Software Integrity Level Scheme For CWS-NS Project

Table 1—Assignment of software integrity levels

SOFTWARE INTEGRITY LEVEL	DESCRIPTION
4	An error to a function or system feature that causes catastrophic consequences to the system with reasonable, probable, or occasional likelihood of occurrence of an operating state that contributes to the error; or critical consequences with reasonable or probable likelihood of occurrence of an operating state that contributes to the error.
3	An error to a function or system feature that causes catastrophic consequences with occasional or infrequent likelihood of occurrence of an operating state that contributes to the error; or critical consequences with probable or occasional likelihood of occurrence of an operating state that contributes to the error; or marginal consequences with reasonable or probable likelihood of occurrence of an operating state that contributes to the error.
2	An error to a function or system feature that causes critical consequences with infrequent likelihood of occurrence of an operating state that contributes to the error; or marginal consequences with probable or occasional likelihood of occurrence of an operating state that contributes to the error; or negligible consequences with reasonable or probable likelihood of occurrence of an operating state that contributes to the error.
1	An error to a function or system feature that causes critical consequences with infrequent likelihood of occurrence of an operating state that contributes to the error; or marginal consequences with occasional or infrequent occurrence of an operating state that contributes to the error; or negligible consequences with probable, occasional, or infrequent likelihood of occurrence of an operating state that contributes to the error.
0	No consequences are associated with a software error that may

SOFTWARE INTEGRITY LEVEL	DESCRIPTION
	occur in the system.

Table 2—Definitions of consequences

CONSEQUENCE	DEFINITIONS
CATASTROPHIC	**LOSS OF HUMAN LIFE, LOSS OF SYSTEM SECURITY AND SAFETY, OR EXTENSIVE FINANCIAL OR SOCIAL LOSS.**
Critical	Major system damage, or major financial or social loss.
Marginal	Degradation of secondary mission, or some financial or social loss.
Negligible	Minor impact on system performance, or operator inconvenience.

Table 3—A graphic illustration of the assignment of software integrity levels

ERROR CONSEQUENCE	LIKELIHOOD OF OCCURRENCE OF AN OPERATING STATE THAT CONTRIBUTES TO THE ERROR			
	REASONABLE	PROBABLE	OCCASIONAL	INFREQUENT
Catastrophic	4	4	4 or 3	3
Critical	4	4 or 3	3	1
Marginal	3	3 or 2	2 or 1	1
Negligible	2	2 or 1	1	0

APPENDIX E : MITIGATION STRATEGY & CONTINGENCY PLANNING MEASURES

1. Provide appropriate training.
2. Hire trained specialists.
3. Install temporary hardware.
4. Utilize internal hardware temporarily.
5. Purchase additional equipment.
6. Implement product functionality in a phased manner.
7. Get agreement on who has decision authority; designate customer project coordinator.
8. Locate project team in our offices.
9. Negotiate better environment.
10. Ensure that all the resources are provided.
11. Suggest/sell Functional Specifications before development.
12. Unilaterally develop Functional Specifications.
13. Adjust deadline and get our/customer buy-off.
14. Do not commit to third party performance.
15. Get third party commitment at least equal to (if not more than) our commitment.
16. Get customer commitment to participate in the project.
17. Increase estimates for the related tasks.
18. Do not commit to response time unless absolutely necessary and then only if a study is done by knowledgeable persons.
19. Establish access to product support personnel.
20. Hold regular meetings with customer.
21. Maintain constant written and oral communication with remote personnel.
22. Visit remote sites as needed.
23. Demonstrate incremental results.
24. Divide staff into teams and assign team leaders.
25. Dedicate our management resources.
26. Establish final authority of <our> project manager.
27. Use proven hardware for development if possible.
28. Reduce functionality to meet deadline.
29. Document our assumptions and understandings and get Customer's sign-off before investing substantial resources.
30. Design an alternate (contingent) solution strategy

APPENDIX F : SOFTWARE ENGINEERING INSTITUTE RISK TAXONOMY CATEGORIES

A. PRODUCT ENGINEERING	B. DEVELOPMENT ENVIRONMENT	C. PROGRAM CONSTRAINTS
1. REQUIREMENTS	**1. DEVELOPMENT PROCESS**	**1. RESOURCES**
a. Stability	a. Formality	a. Schedule
b. Completeness	b. Suitability	b. Staff
c. Clarity	c. Process Control	c. Budget
d. Validity	d. Familiarity	d. Facilities
e. Feasibility	e. Product Control	**2. CONTRACT**
f. Precedent	**2. DEVELOPMENT SYSTEM**	a. Type of Contract
g. Scale	a. Capacity	b. Restrictions
2. DESIGN	b. Suitability	c. Dependencies
a. Functionality	c. Usability	**3. PROGRAM INTERFACES**
b. Difficulty	d. Familiarity	a. Customer
c. Interfaces	e. Reliability	b. Associate Contractors
d. Performance	f. System Support	c. Subcontractors
e. Testability	g. Deliverability	d. Prime Contractor
f. Hardware Constraints	**3. MANAGEMENT PROCESS**	e. Corporate Management
g. Non-Developmental Software	a. Planning	f. Vendors
3. CODE AND UNIT TEST	b. Project Organization	g. Politics
a. Feasibility	c. Management Experience	
b. Testing	d. Program Interfaces	
c. Coding/Implementation	**4. MANAGEMENT METHODS**	
4. INTEGRATION AND TEST	a. Monitoring	
a. Environment	b. Personnel Management	
b. Product	c. Quality Assurance	
c. System	d. Configuration Management	
5. ENGINEERING SPECIALTIES	**5. WORK ENVIRONMENT**	
a. Maintainability	a. Quality Attitude	
b. Reliability	b. Cooperation	
c. Safety	c. Communication	
d. Security	d. Morale	
e. Human Factors		
f. Specifications		

APPENDIX G : KEY TERMS

Accepted Risk: A confirmed risk that has been evaluated with the determination that the consequences will be accepted

Candidate Risk: Potential concern being considered by the CWS-NS Project Risk Management process as a tangible risk that can be described and measured.

Confirmed Risk: A candidate risk that has been analyzed and validated, has been classified and prioritized, has recommended mitigation(s) and has established measurements. A risk that has been reviewed and validated by the Risk Manager, Risk Analyst, the CWS-NS Project Manager or their designee.

Expert Judgment: A subjective or qualitative decision-making technique, employing expertise, knowledge, experience, or skills and used as an alternative or supplement to mathematical based decision-making techniques.

Identified Risk: A candidate risk becomes an identified risk when it has been determined that it can be described and measured. Each identified risk is recorded in the CWS-NS Project Risk Database (PRD) as a risk item.

Issue: A matter that requires the attention of project management staff or a matter that may impede the success of a project task.

Project Office: The project office for the CWS-NS Project is managed by the Project Manager for the project, and consists of the OSI employees and contractors who report to and support the Project Director.

Retired Risk: A confirmed risk that is either no longer applicable or a confirmed risk that has been closed.

Risk: A potential event that is expected to have a negative impact on the success of the project, if that event were to occur.

Risk Acceptance: Accepting the consequences of the risk event. Acceptance can be active (e.g., developing a contingency plan to be executed if the risk event occurs), or acceptance can be passive (e.g., taking no action, allowing the risk event to occur, and accepting the resulting consequences).

Risk Analysis: A method to transform potential risk items into information used to aid decision-making and evaluate potential risk impacts. Risk analysis involves classification and prioritization of risk items, providing recommendations for mitigating and measuring risk items, and reviewing risk item information with the Risk Manager, Risk Analyst, and the CWS-NS Project Manager or their designee.

Risk Analyst: The staff member responsible for monitoring candidate risks during the risk identification and risk analysis activities. The Risk Analyst is responsible for the maintenance of the Project Risk Database (PRD).

Risk Class/Area: Categories for risk items that are usually a higher level of abstraction derived from individual risk items.

Risk Event: A future occurrence of the risk item; the potential event, expected to have a negative impact on the success of the project, if the event were to occur.

Risk Identification: A method used to search and find risks before they become problems. The Risk Identification process transforms issues and concerns about a project into tangible risks, which can be described and measured. Risk identification involves searching for and identifying Candidate Risks, then submitting, collecting, and reviewing the Candidates. Selected risks become Identified Risks in the Project Risk Database (PRD).

Risk Impact: A description of the probable project consequence(s) resulting from the occurrence of a risk event or outcome. Risk Impact is expressed as a number between one and five, with one representing a low impact and five representing a high impact to the program. The risk impact rating closely corresponds to the Software Integrity Levels defined in the CWS-NS Project Software Integrity Level Scheme (Appendix D).

Risk Implementation: A method used to actively mitigate risks. Risk implementation involves the execution of risk mitigation action plans and recording risk information changes in the Project Risk Database (PRD).

Risk Manager: Staff assigned to identify, collect, review and analyze candidate risks. The Risk Manager assigns the initial Risk Owner for a risk and begins the reporting and communications processes. The Risk Manager provides oversight of all project risks and risk processes.

Risk Measurement: The methods used to track the risk mitigation and to measure the effectiveness of the mitigation.

Risk Mitigation: Response to an Identified Risk, designed to eliminate or reduce the probability of risk occurrence.

- Elimination – removing the threat of the risk event occurring by eliminating the cause.
- Reduction – reducing the exposure of the risk by either reducing the impact on the project, the probability of occurrence, or both.

Risk Owner: The person assigned responsibility for developing risk mitigation/contingency measurements, and mitigation/contingency action plans. The Risk Owner is also responsible for implementing and tracking mitigation/contingency action plans.

Risk Planning: A method used to take ownership of risk mitigation. Risk planning involves assigning risk ownership, developing risk mitigation, developing measurements, reviewing and approving risk mitigation and measurements, translating mitigation into action plans, and recording risk information changes in the Project Risk Database (PRD).

Risk Severity: A determination of the importance of the risk based upon: 1) potential impact of the risk on the project, 2) the probability of occurrence, and 3) the risk timeframe.

Risk Probability: The likelihood of the occurrence of the risk (high, medium, low) expressed as a percentage for the likelihood of risk occurrence.

Risk Timeframe: The period of time within which the risk is expected to occur [short-term (< 180 Days), medium-term (180-360 Days), or long-term (> 360 Days)].

Risk Tracking and Control: A method to insure that all steps of the Risk Management process are being followed and risks managed methodically. Risk tracking and control involves the oversight and tracking of risk mitigation action plan execution, re-assessment of risks, reporting risk status, and recording risk information changes in the Project Risk Database (PRD).

Root Cause Analysis: A problem solving method aimed at identifying and evaluating the cause or causes that created a risk.

Watched Risk: An identified risk that must be reviewed frequently to determine if it requires mitigation, can be retired, or is out of the project management's sphere of influence, but whose outcome needs to be recorded.

Note to file:

Appendix G – Workflows and Use Cases will be provided by the CWS Automation Study Team upon request.

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Office of Systems Integration
"SERVING CALIFORNIA"

Child Welfare Services New System Project

Architecture Vision

January 2012

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1 Introduction

This document outlines a vision for the Service (Application) Architecture for the CWS-NS Solution. The objective of this document is to convey an architectural vision and to provide a foundation for creating the CWS-NS Solution. The architectural vision is aimed at ensuring that the service solution created provides:

- Implementation of the CWS-NS functional and technical requirements.
- Integration for multiple dissimilar systems using a Service Oriented Architecture (SOA).
- A true separation of concerns between layers of the application (i.e. presentation, service, business, and data) is achieved using SOA and a Domain Driven Design (DDD).
- Rapid adaptability to changing business rules or to changes in infrastructure.

Many existing standards (OASIS, NIST, NIEM, OCIO-CA, etc) were used as source documents for creating this CWS-NS Vision and are listed in Appendix C.

1.1 CWS-NS Solution

The CWS-NS Solution has twelve functional components that are used in the processes employed by child welfare workers to investigate, service, and manage a child welfare case. Collectively, these twelve components automate the business functionality of the CWS. These twelve Functional components along with their key activities are as follows:

- **Intake** – referral screening, investigation and cross reporting
- **Client Information** – recording and accessing information on clients
- **Service Delivery** – recording of services delivered to clients
- **Case Management** – developing case plans, monitoring service delivery and progress assessment
- **Placement** – placement management and matching of children to placement alternatives
- **Court Processing** – hearing preparation, filing of petitions, generating subpoenas, citations, notices and recording court actions
- **Caseload** – assignment and transfer of cases
- **Resource Management** – managing information on CWS resources
- **Program Management** – caseload, county and program-level information for program management purposes
- **Adoptions** – recording of information for reporting purposes
- **Licensing** – information on licensees used in placement decisions
- **Financial Management** – Management of financial payments and collections based on various programs.

Each functional component captures information and provides automation to generate the outputs needed for case management, service provision and program management or documenting case history. The SOA envisioned for CWS-NS is based on using a Business Process Management (BPM) approach to influence system integration and design. A BPM

approach defines and organizes the business processes into business architecture. This business architecture takes advantage of underlying software architecture to manipulate data according to specific business processing requirements. The business process workflow will be stored in configurable format easily modifiable to enable both new business processes and business process modifications.

The following diagram provides a conceptual solution architecture model depicting the clients, entities, and means involved in performing these functions. The RFP Section VI provides additional details pertaining to this solution viewpoint.

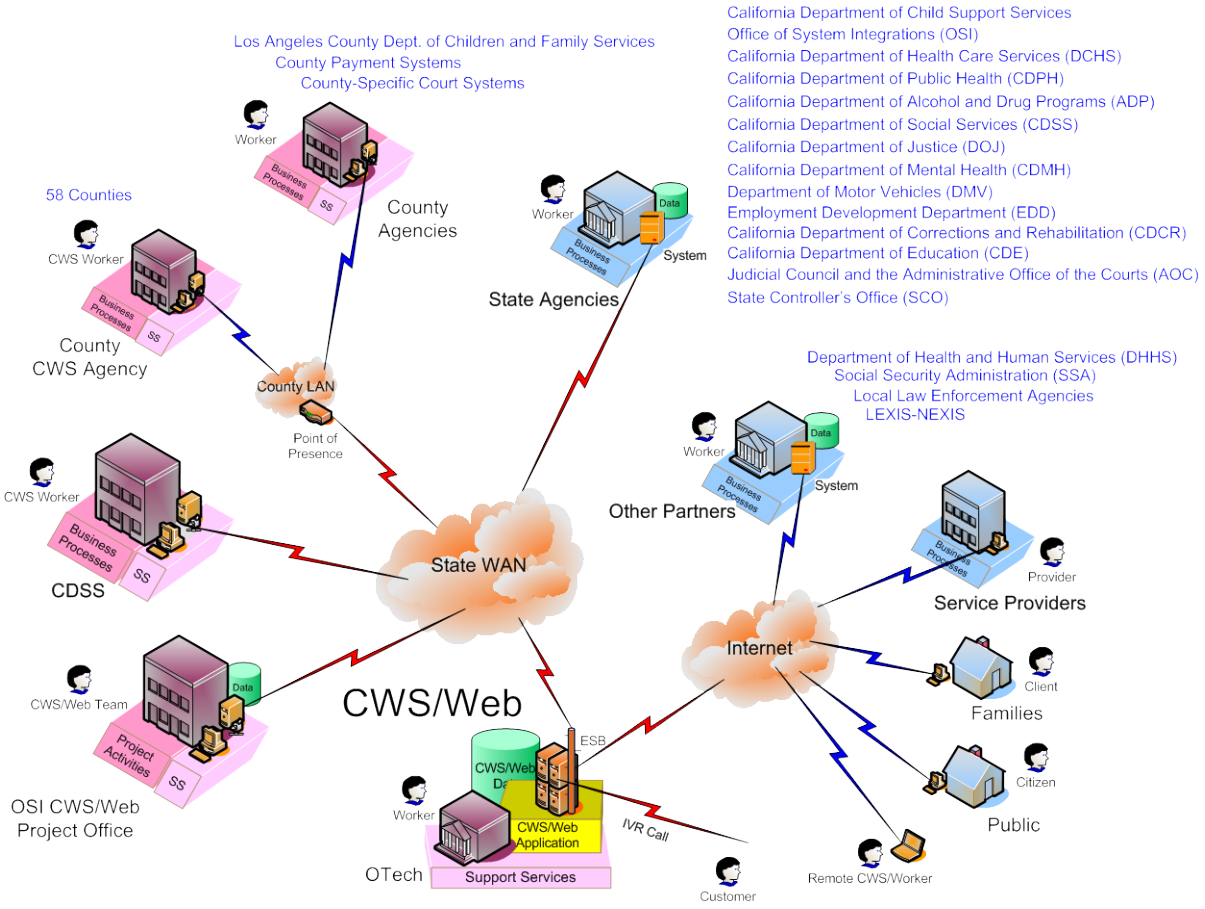

Figure 1 CWS-NS Conceptual Solutions Architecture Model

The following diagram provides a logical view of the overall CWS-NS Solution from a technical perspective.

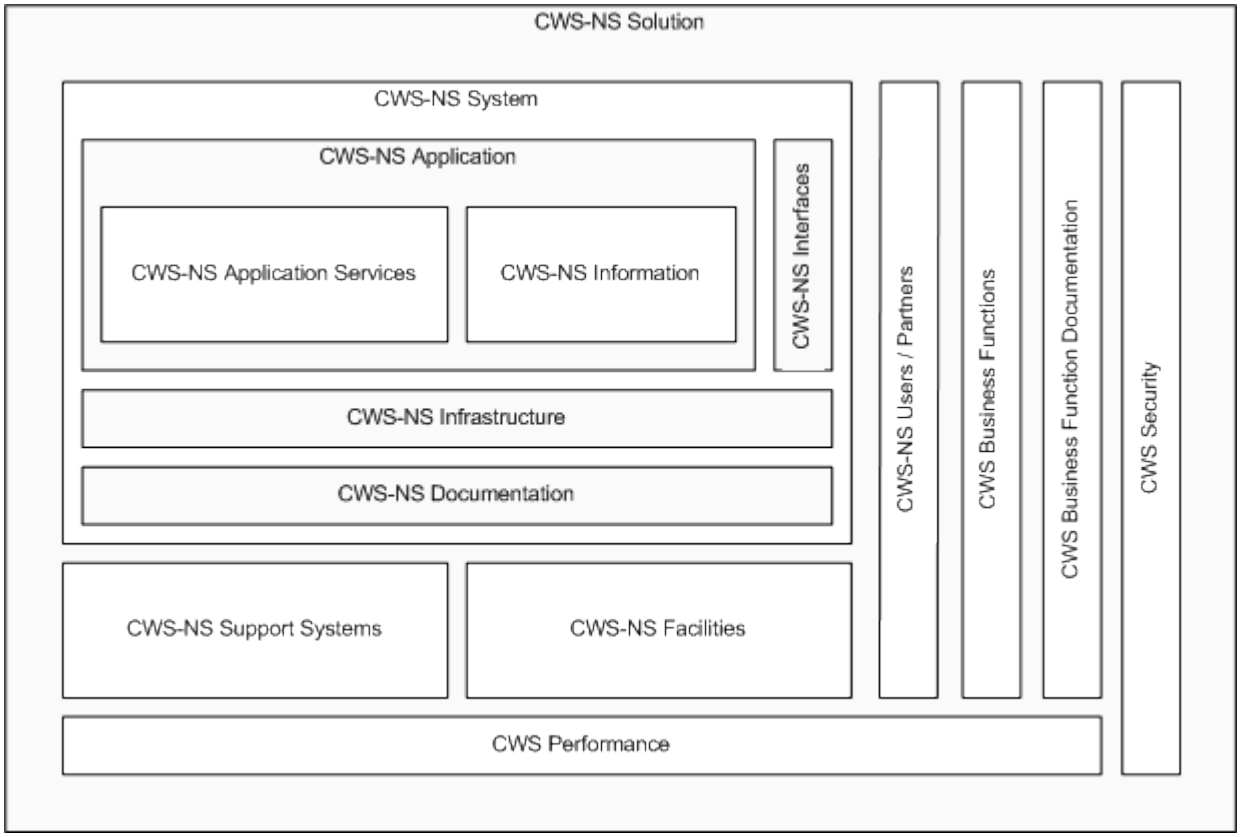

Figure 2 CWS-NS Solution Model

1.1.1 Key Business Needs

Several key business needs must be met by CWS-NS in order for the application to be successful. They include:

- Provide child welfare services workers with immediate access to child and family specific information in order to make appropriate and expeditious case decisions.
- Provide child welfare services workers with the case management information needed to effectively and efficiently manage their caseloads and take appropriate and timely case management actions.
- Provide state and county child welfare services management with the information needed to monitor and evaluate the accomplishment of child welfare services tasks and goals.
- Provide all child welfare services agencies with a common database and definition of information from which to evaluate the child welfare services programs in terms of the following:
    - Effectiveness in meeting current and future statutory and regulatory mandates, goals, and objectives of the programs.
    - Effectiveness in meeting the needs of the families and children serviced by the program.
    - Projecting and planning for the future needs of the families and children served by the program.

- Meet all SACWIS federal requirements.
- Meet federal statistical reporting requirements with a minimum of duplication of effort.
- Consolidate the collection and reporting of information for those programs which are closely related to child welfare services, including foster care and emergency assistance.
- Utilize the child welfare services functionality defined in current and planned automated systems as the foundation for the development of the technical requirements for the Child Welfare Services Case Management System.

1.1.2 Service Oriented Architecture (SOA)

A modern IT infrastructure in California that supports all the diverse lines of business from an enterprise perspective needs to be developed. It should be a standards-based environment that accommodates all stakeholders – different levels of government, as well as private industry partners. There are two foundational components that make up this new IT infrastructure:

- First, an Enterprise Service-Oriented Architecture (SOA) infrastructure will host and manage new web services. Many of these business services will be implemented as shared web services.
- Second, an Enterprise Identity Management (IDM) system will manage all types of users in a consistent way. It will allow for various security policies to be applied as set by various security and privacy policy organizations.

CWS-NS may be one of the crucial large statewide implementations in California that is envisioned to be SOA based. If implemented, a SOA solution allows CWS-NS to realize the advantages of maintaining a SOA based application and infrastructure and positions this solution for utilization of the Enterprise IDM system or service.

Over the last two decades, EAI and other middleware concepts, standards and software products have matured significantly due to vigorous market competition. The evolution of the internet and its considerable use for online ecommerce has been a key driver for the development and implementation of highly distributed, portable, automated and highly transactional systems. The knowledge, experience and maturity gained from these technical implementations have advanced the state of products and software development processes; projects like CWS-NS, if implemented smartly, stand to gain immensely from these conditions. The current state of increased coherence and consolidation in SOA standards and approaches, and the maturity of various best of breed SOA products have made a SOA framework based implementation very advantageous to project sponsors. The sponsors of SOA based implementations can expect to realize the following advantages over typical non-SOA based systems:

- A high level of interoperability increases flexibility and reduces maintenance costs in the long run.
- Separation of concerns serves to increase alignment with organizational division of responsibilities.
- A more effective software development lifecycle

    - Increases system agility to match the business process agility, and
    - Allows for the ability to follow a roadmap over a period of time.
- Alignment with current and future technical strategies.

California's child welfare services are offered and administered through its 58 counties. While sometimes nuanced, significant variations could exist in the child welfare organizations and business processes amongst these California counties. A statewide child welfare system like CWS-NS which has to deal with the spectrum of all the county specific variations organically lends itself to a SOA based implementation.

SOA implementations generally follow a phased and iterative implementation strategy. This kind of implementation strategy lets a project sponsor

- apply fine-tuned control on the implementation methodology,
- measure risk and earned value from the system implementation and match payments accordingly, and
- gradually enhance (as opposed to one time initial set up) the hardware, software, application, and communications stacks so that a roadmap for enhancement can be followed as required by alternative 3 of the Technical Architecture Alternatives Analysis (TAAA) done in 2004 -2005.

SOA approach makes governance an important part of the implementation project and beyond during the M&O phase after deployment. For CWS-NS SOA governance should be based on

- synchronizing service infrastructure and service demand roadmaps,
- prioritization of new services and service enhancements to existing services
    - to enhance collaboration and level of service to new and existing service consumers,
    - to meet new business needs, and
    - to maintain backward compatibility and business continuity.

There is a shifting technical landscape as the State of California and their Federal and County partners develop and solidify their own future technical strategies and vision. A CWS-NS implementation based on a SOA architecture would enable it to best accommodate the future changes in a cost effective manner.

2 Application Architecture

This document addresses architecting the CWS-NS solution to use Service Oriented Architecture (SOA), Domain Driven Design (DDD), and Web Services.

The logical service model (LSM) depicted below transforms the Conceptual Solution Architecture Model into the roadmap needed for identifying and building service solution components. This logical view provides information about the application architecture needed for the CWS-NS Service solution.

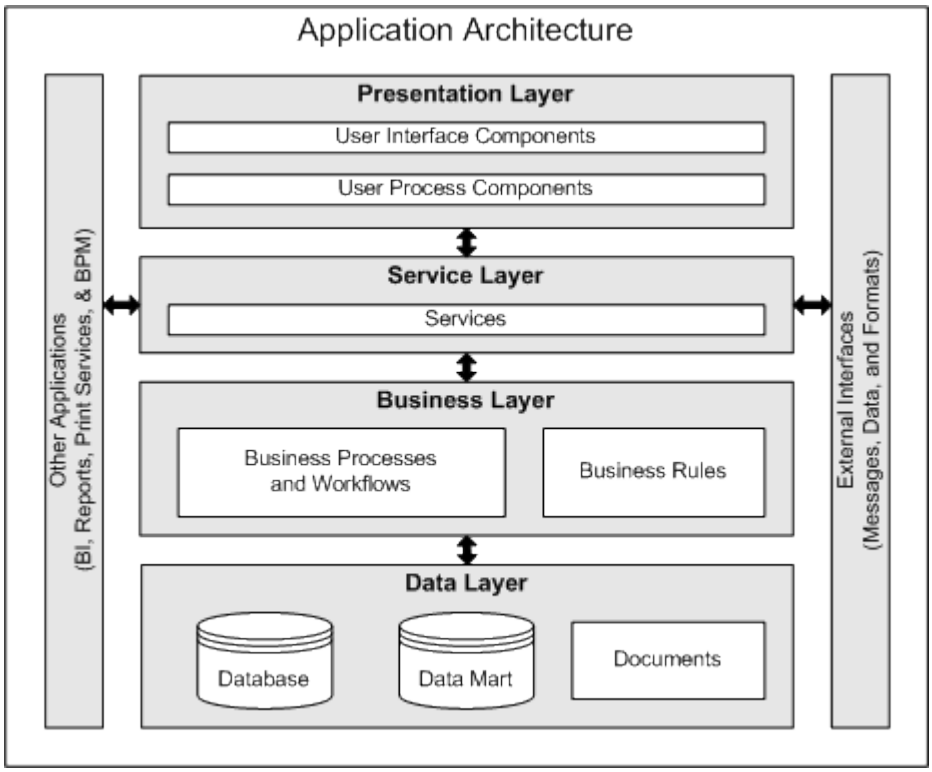

Figure 3 CWS-NS Application Architecture

The vision is to use SOA and Domain Driven Design (DDD) to develop the CWS-NS Service Solution represented in by the CWS-NS LSM. This approach allows the service solution to be constructed in discrete layers that are loosely coupled to allow for rapid extensibility and adaptability to meet business change or expansion within CWS-NS Service Solution. This approach provides for using DDD where the service layer will be built within a Service Oriented Architecture using web services. While this document contains general architecture information which can be applied to the design of the CWS-NS Service Solution (application), it does not contain specific designs for implementing the architecture within the service solution.

2.1 General Architecture

The combinations of services, both internal and external to CWS-NS, make up a Service Oriented Architecture. The independence of different layers of the application from one another, such as User Interface from Service, Service from Business, Business from Data, is a primary goal of this architecture. This would allow the different processes to be loosely coupled from one another, making changes to one layer independent from the other layers. This is the design philosophy contained in Domain Driven Design. SOAP or REST will be the data transport protocol for all services.

The CWS-NS Architecture describes a SOA which serves its users and partner applications by enabling them access to business process functionality through web browser, web services and messaging components.

CWS-NS will enable State Agencies and the California counties to connect to the system via web services and will facilitate secure access to the application for any authorized user or partner. The architecture of the system intends all county users will connect to the system through a web portal, which will be designed to accommodate custom views and expose county specific workflow preferences.

Domains map to discrete layers within which specific needs of the business will be met. This means that each layer of DDD will be discrete, loosely coupled with no pollution between layers.

Reusability / Extensibility

The SOA approach also lends itself to reusability as well as the ease of integration to external systems. By separating common system services into components requiring configuration settings for all business rules, we allow for the externalization of these components into a global service registry for use by all applications requiring similar services. External systems can also reuse CWS-NS functionality published to the global service registry.

We also allow for business services reuse by their integration into multiple business processes, where required. Business processes should also allow for reuse of previously generated business processes.

CWS-NS business services should be designed for use across many different business processes. If defined broadly enough, they can be easily extended to meet the needs of multiple business processes. CWS-NS XML-based interfaces should be designed for maximum extensibility.

Scalability

Because CWS-NS capacity is envisioned to increase over time, it is envisioned that the underlying SOA infrastructure not limit the functionality and effectiveness of the system. All components and business services should be designed as if they were to be load balanced across multiple servers. In addition, to limit the cost of increasing the system's capacity once a bottleneck has been encountered, the used of hardware based component suites should be discouraged.

Versioning

Because the system will use a single service type to manipulate particular data types of the system, there exists the potential that a service is modified in a way that affects the functionality of the systems using the service. To account for this possibility, the service must allow for tight-coupling of a system to a particular version of a shared component. This will require a consistent versioning pattern.

Technology Independence

The consumer of a service component must be completely independent of the technology of the provider component and vice-versa.

Life-cycle Independence

Each of the components should be able to operate in a separate life-cycle.

Communication Protocol

A service must be invoke-able by a variety of protocols. The choice of protocol must not restrict the behavior of the service. Binding to a specific protocol must take place at run-time / deployment-time, and not at the design or development time.

2.1.1 Scope

Scope of the Architecture includes the design of the CWS-NS systems to use a Service Oriented Architecture (SOA) with XML as the data transport, along with the latest in Web 2.0 design and HTML5 / CSS3 to leverage an Ajax browser interface.

In order to provide interoperability with future applications and processes, CWS-NS specifies the use of some form of web services and messaging components. Web services provide web standards-based interoperability for business-to-business and program-to-program applications. By leveraging these technologies, CWS-NS will provide an architectural framework utilizing interfaces that adhere to web service standards as defined by OASIS and W3C.

The Architecture also includes a discussion of, and preferred method for, the specific architecture and implementation strategy for redesigning the applications using SOA, DDD, and Web 2.0.

The CWS-NS application is envisioned as having a minimum of four conceptual layers:

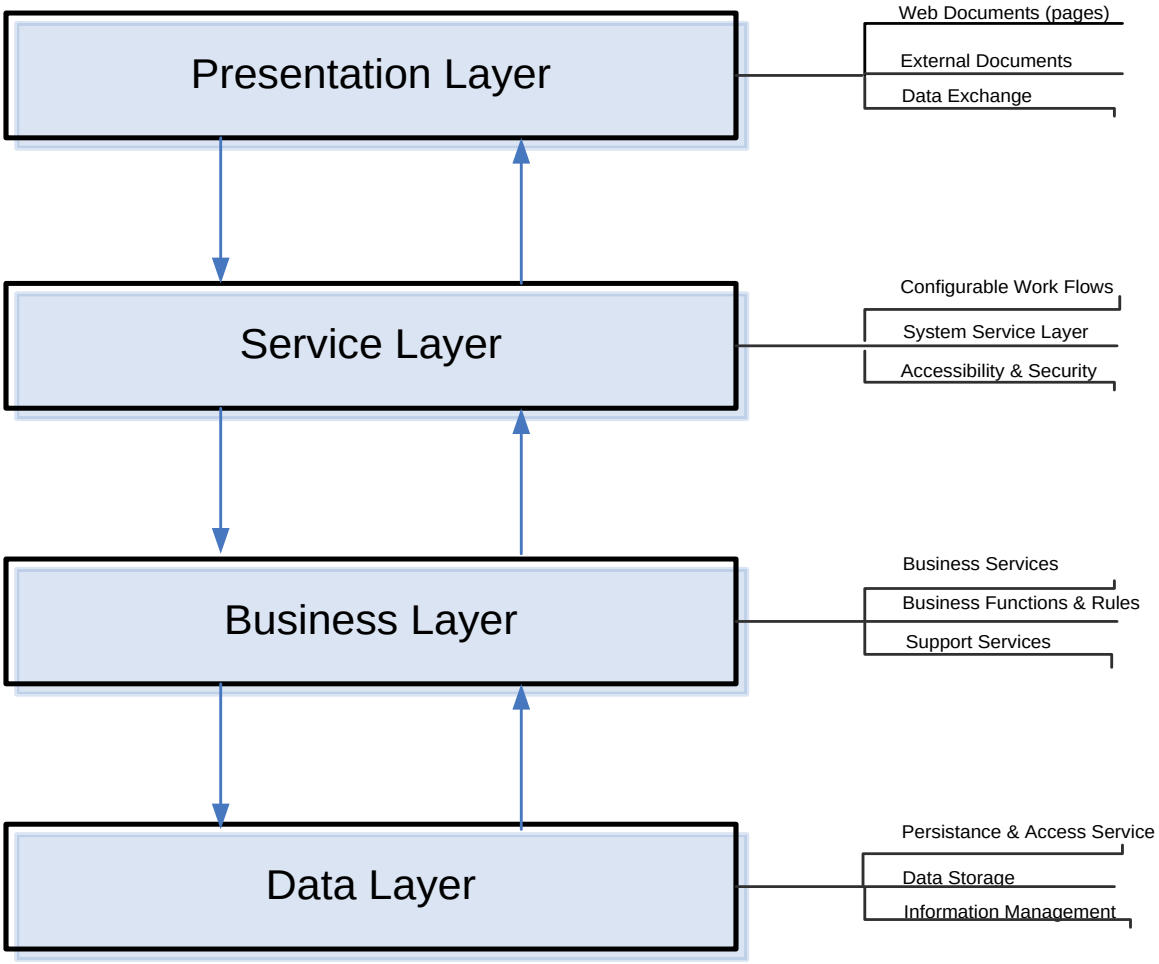

Figure 4 CWS-NS Application Layers

Presentation Layer. Responsible for presenting information to the user and interpreting user commands. The external actor might sometime be another computer system rather than a human reader.

Service Layer. Defines the job the software does and directs domain objects to work out the problems, including work flow configurations. The tasks this layer is responsible for are meaningful to the business or necessary for interaction with the service (application) layers of other systems.

Business Layer. Responsible for representing concepts of the business and information about the business situation and business rules. The state that reflects the business situation is controlled and used here. The technical details of storing it are delegated to the Business Layer.

Data Layer. Provides generic technical capabilities that support the higher layers: message sending for the application, persistence for the domain, and so on. This layer may also

support the pattern of interactions between the four layers through an architectural framework.

To loosely connect these layers, the SOA principal, in particular a web services architecture is used, including:

- Service Provider – CWS-NS Web Services.
- Service Consumer – Any organization or process using the CWS-NS Web Services.

2.2 Presentation Layer

The presentation layer is a vitally important part of an application — an inappropriately architected presentation layer can lead to too much complexity, a lack of flexibility and an inefficient and frustrating user experience. This section will discuss how CWS-NS should be built to avoid this fate.

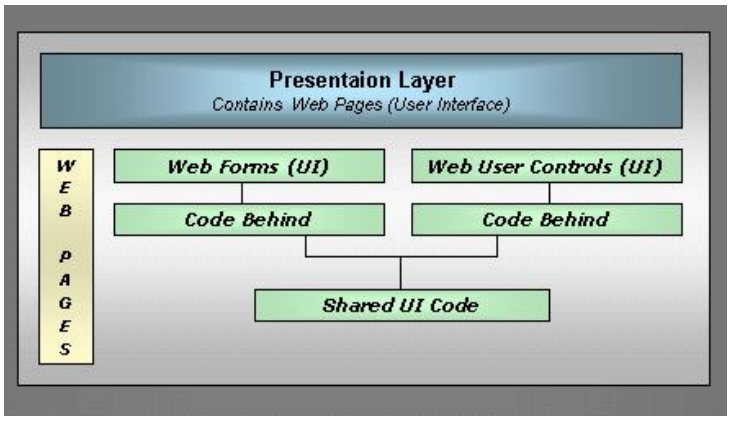

Figure 5 CWS-NS Presentation Layer

The presentation layer will include the following:

- **User Interface (UI) components**. These are the application's visual elements used to display information to the user and accept user input as well as user controls. These will run on the client and include the web forms and pages as well as the code components that will run behind the forms and pages. These can be quite rich and will provide the user with an experience that will be easy to use and intuitive. These components should include open source libraries such as Dojo, jQuery, dhtmlX, etc. to provide a full interactive experience in a form that will not require building custom functions. Dynamic interactive components such as AJAX will make the experience configurable and quick.

- **Presentation Logic components**. Presentation logic is the application code that defines the logical behavior and structure of the application in a way that is independent of any specific user interface implementation. This typically runs on the server and is the "server side" of the presentation experience. These components will be shared components and are where the UI components are composed or generated based on user profiles, application needs and acceptable responses.

2.2.1 General Design Considerations

There are several key factors that should be considered when designing the presentation layer. Use the following principles to ensure that the design meets the requirements for the application, and follows best practices:

- Choose the appropriate application type for implementing CWS-NS based on user expectations and assumptions. The application type chosen will have considerable impact on the options for the presentation layer. Determine if the implementation will be a rich (smart) client, a Web client, or a rich Internet application (RIA). Base the decision on CWS-NS application requirements, and on organizational and infrastructure constraints.
- Choose the appropriate UI technology for CWS-NS. Different application types provide different sets of technologies that can be used to develop the presentation layer. Each technology type has distinct advantages that can affect the ability to create a suitable presentation layer design for CWS-NS.
- Use relevant design patterns. Review the standard presentation layer design patterns for proven solutions to common presentation problems. Keep in mind that not all patterns apply equally to all archetypes. However, the general pattern of Separated Presentation, which separates presentation specific concerns from the underlying application logic, applies to all application types. Specific patterns such as MVC, MVP, and Supervising Presenter are commonly used in presentation layer design of rich client applications and RIAs. Variants of the Model-View-Controller (MVC) and Model-View-Presenter (MVP) patterns can be used in Web applications.
- Design for separation of concerns within CWS-NS. Use dedicated UI components that focus on rendering, display, and user interaction. Consider using dedicated presentation logic components to manage the processing of user interaction where this is complex or where unit testing will occur. Also, consider using dedicated presentation entities to represent the business logic and data in a form that is easily consumable by the UI and presentation logic components. Presentation entities encapsulate within the presentation layer the business logic and data from the business layer, for use in much the same way as business entities are used in the business layer.
- Use standard human interface guidelines. Implement guidelines for the CWS-NS UI design, including factors such as accessibility, localization, and usability when designing the presentation layer. Review established UI guidelines for interactivity, usability, system compatibility, conformance, and relevant UI design patterns based

on the client type and the technologies that are chosen, and apply those applicable to the CWS-NS application design and requirements.

- Adhere to user driven design principles. Before designing the CWS-NS presentation layer, understand the CWS-NS customer. Use surveys, usability studies, and interviews to determine the best presentation design to meet the CWS-NS Customer's requirements.
- CWS-NS should work across the current major browsers and platforms (currently Internet Explorer, Firefox, Chrome, Opera and Safari for Windows, Mac and Linux).

2.2.2 Specific Design Issues

There are several common issues that must be considered as the design is developed for CWS-NS. These issues can be categorized into specific areas of the CWS-NS design. The following sections provide guidelines for the common areas.

2.2.2.1 The CWS-NS User Experience

CWS-NS, as a web based application, is wholly dependent on the user interface and a good user experience to be successful.

In this context, perceived performance is much more important than actual performance and so expectation management and knowledge of the patterns of user interaction are essential. For example, users might not mind waiting longer for a page to load if they get feedback on when the page is likely to be loaded, and this wait time does not interfere with their activities. In other situations, a very short delay—even fractions of a second for some UI actions—can make the application feel unresponsive. Conducting usability surveys and interviews to understand what users require and expect from the CWS-NS application, and designing to achieve an efficient CWS-NS UI with these results in mind is the only way to ensure a good CWS-NS user experience and the success of the application.

Use the following guidelines when designing for the CWS-NS user experience:

- Do not design overloaded or overly complex interfaces. Provide a clear path through the application for each key user scenario, and consider using colors and noninvasive animations to draw the user's attention to important changes in the UI, such as state changes.
- Provide helpful and informative error messages, without exposing sensitive data.
- For actions that might take longer to complete, try to avoid blocking the user. At a minimum, provide feedback on the progress of the action, and consider if the user should be able to cancel the process.
- Consider empowering the user by providing flexibility and customization of the UI through configuration and, where appropriate, personalization.

- Consider how localization and globalization will be supported, even if this is not a primary requirement in the initial CWS-NS design. Attempting to add support for localization and globalization once the design is complete can involve a great deal of rework and refactoring.
- Make sure to design the CWS-NS application with the future in mind. No application can exist for more than a short time without needing updates, additions or rework.
- Use Tabs to segregate information. Tabs are a type of horizontal top navigation bar. They have some extra advantages over a line of links or a complex drop down menu system:
    - They serve to show the active section/selection very clearly
    - They naturally have a working visual hierarchy, with a real-world connection that makes them extremely clear. A tab is normally attached to (part of) a folder or sheet in a binder, and physically labels everything in the folder, or on the sheet.
    - They are unambiguously mutually-exclusive. It's physically impossible to have two tabs selected (because they would both have to be at the front).

2.2.2.2 The CWS-NS User Interface

Design a suitable user interface to support CWS-NS data input and data validation requirements. For maximum usability, follow established guidelines defined by the initial implementation of the standards and guidelines modeled for CWS-NS, and the many established industry usability guidelines that are based on years of user research into input design and mechanisms. Most importantly, follow Web 2.0 guidelines (e.g. http://www.webdesignfromscratch.com/web-design/web-2.0-design-style-guide) for building cleaner more efficient web pages. When choosing a layout strategy for the user interface, consider whether there will be a separate team of designers building the layout, or whether the development team will create the UI. If designers will be creating the UI, choose a layout approach that does not require code or the use of development focused tools. Use the following guidelines when designing the user interface:

- Consider using a Separated Presentation pattern such as MVP to separate the layout design from interface processing.
- Use templates to provide a common look and feel to all of the UI screens, and maintain a common look and feel for all elements of the UI to maximize accessibility and ease of use.
- Avoid over complex layouts.
- Consider using forms-based input controls for data collection tasks, a document-based input mechanism for collecting more free form input such as text or drawing documents, or a wizard-based approach for more sequenced or workflow driven data collection tasks.
- Avoid using hard-coded strings, and using external resources for text and layout information.

- Use accessibility techniques in the design. Consider users with disabilities when designing the input strategy; for example, implement text-to-speech software for blind users, or enlarge text and images for users with poor sight. Support keyboard-only scenarios where possible for users who cannot manipulate a pointing device.
- Take into account different screen sizes and resolutions, and different device and input types such as mobile devices, touch screens, and pen and ink—enabled devices. For example, with touch screen input there will typically be larger buttons with more spacing between them than would be in a UI designed only for mouse and keyboard input. When building a CWS-NS, use Cascading Style Sheets (CSS) for layout.

2.2.2.3 Composition in CWS-NS

Consider whether the application will be easier to develop and maintain if the presentation layer uses independent modules and views that are composed at run time. UI composition patterns support the creation of views and the presentation layout at run time. These patterns also help to minimize code and library dependencies that would otherwise force recompilation and redeployment of a module when the dependencies change. Composition patterns help to implement sharing, reuse, and replacement of presentation logic and views. Consider the following guidelines when designing the UI composition strategy for CWS-NS:

- Avoid dependencies between components. For example, use abstraction patterns when possible to avoid issues with maintainability.
- Consider patterns that support run-time dependency injection.
- Consider creating templates with placeholders. For example, use the Template View pattern to compose dynamic Web pages in order to ensure reuse and consistency.
- Consider composing views from reusable modular parts. For example, use the Composite View pattern to build a view from modular, atomic component parts.
- Consider decoupling for the application by using separate modules that can be added easily.
- Be cautious when using layouts generated dynamically at run time, which can be difficult to load and maintain.
- Investigate patterns and third-party libraries that support dynamic layout and injection of views and presentation at runtime.
- When communicating between presentation components, consider using loosely coupled communication patterns such as Publish/Subscribe. This will lower the coupling between the components and improve testability and flexibility.

2.2.2.4 Validation in the Presentation

Designing an effective input and data validation strategy is critical for the security and correct operation of CWS-NS. Determine the validation rules for user input as well as for business

rules that exist in the presentation layer. Consider the following guidelines when designing the input and data validation strategy:

- Input validation should be handled by the presentation layer, whilst business rule validation should be handled by the business layer. However, if the business and presentation layers are physically separated, business rule validation logic should be mirrored in the presentation layer to improve usability and responsiveness. This can be achieved using meta-data or by using common validation rule components in both layers.
- Design the validation strategy to constrain, reject, and sanitize malicious input.
- Use design patterns and third party libraries that can assist in implementing validation.
- Identify business rules that are appropriate for validation, such as transaction limits, and implement comprehensive validation to ensure that these rules are not compromised.
- Ensure that the application correctly handle validation errors, and avoid exposing sensitive information in error messages.
- Ensure that the application log validation failures to assist in the detection of malicious activity.

2.2.2.5 Handling Exceptions

Design a centralized exception management mechanism for the CWS-NS application that catches and manages unexpected exceptions (exceptions that the application cannot recover from locally) in a consistent way. Pay particular attention to exceptions that propagate across layer or tier boundaries, as well as exceptions that cross trust boundaries. Consider the following guidelines when designing the exception management strategy:

- Provide user friendly error messages to notify users of errors in the application, but ensure that the application avoids exposing sensitive data in error pages, error messages, log files, and audit files.
- Attempt to leave the application in a consistent state if possible, or consider terminating it if this is not possible.
- Ensure that the application catches exceptions that will not be caught elsewhere (such as in a global error handler), and clean up resources and state after an exception occurs.
- A global exception handler that displays a global error page or an error message is useful for all unhandled exceptions. Unhandled exceptions generally likely indicate that the system is in an inconsistent state and may need to be gracefully shut down.
- Differentiate between system exceptions and business errors. In the case of business errors, display a user friendly error message and allow the user to retry the operation. In the case of system exceptions, check to see if an issue such as a service or database failure caused the exception, display a user friendly error message, and log the error message to assist in troubleshooting.

- Only catch exceptions that the application can handle, and avoid the use of custom exceptions when not necessary.
- Do not use exceptions to control application logic flow.

2.2.2.6 CWS-NS User Navigation

Design the CWS-NS navigation strategy so that users can navigate easily through the screens or pages, and so that the application can separate navigation from presentation and UI processing. Ensure that the application can display navigation links and controls in a consistent way throughout the application to reduce user confusion and to hide application complexity. Consider the following guidelines when designing CWS-NS navigation strategy:

- Design toolbars and menus to help users find functionality provided by the UI.
- Consider using wizards to implement navigation between forms in a predictable way, and determine how the application will preserve navigation state between sessions if this is necessary.
- Avoid duplication of logic for navigation event handlers, and avoid hard-coding navigation paths where possible. Consider using the Command pattern to handle common actions from multiple sources.
- Consider navigation designs that provides easier configurability and administration (example, Database based menu navigation design)

2.2.2.7 CWS-NS Offline Capabilities

Offline access brings web applications to the desktop for local storage and data access when disconnected from the data cloud and software as a service. Providing support for offline access to data and services, using the same application whether they are on or offline, enables our users to remain productive at all times and helps to ensure consistency and data quality.

A smart CWS-NS solution can provide robust access to the application so that the effect of connectivity changes can be minimized or eliminated:

- By intelligently caching data and logic on the client, allowing check in / check out capabilities.
- Automatically deploying updates to both when required.
- Providing our user with a seamless experience independent of connected state.
- A smart CWS-NS solution can ensure that all network calls are handled on a background thread so that the application never has to wait for the network to respond, allowing the user to carry on working regardless of the state of the network.

The W3 standards for HTML5 have outlined basics standards for offline applications (http://www.whatwg.org/specs/web-apps/current-work/multipage/offline.html).

Please see Appendix A for more detailed descriptions of Offline Processing.

2.2.2.8 CWS-NS Geospatial Capabilities

CWS-NS envisions the use of mapping as part of the presentation of information to the users of the system. Such maps can easily deliver up to date information using information generated from the CWS-NS database and/or data warehouse database. They don't need to be printed, mastered and distributed.

Software and hardware infrastructure for web maps is cheap. Web server hardware is cheaply available and many open source tools exist for producing web maps. Because web maps distribute both logic and data with each request or loading, product updates can happen every time the web user reloads the application. They work across browsers and operating systems. If web maps are implemented based on open standards, the underlying operating system and browser do not matter. Web maps can combine distributed data sources. Using open standards and documented APIs one can integrate (mash up) different data sources, if the projection system, map scale and data quality match. The use of centralized data sources removes the burden for individual counties or organizations to maintain copies of the same data sets.

Web maps allow for personalization. By using user profiles, personal filters and personal styling and symbolization, users can configure and design their own maps. Accessibility issues can be treated in the same way. If users can store their favorite colors and patterns they can avoid color combinations they can't easily distinguish (e.g. due to color blindness).

Web maps enable collaborative mapping using web mapping technologies, such as DHTML/Ajax, SVG, Java, Adobe Flash, etc. to enable distributed data acquisition and collaborative efforts.

Web maps support hyper linking to other information on the web. Just like any other web, web maps can act like an index to other information on the web. Any sensitive area in a map, a label text, etc. can provide hyperlinks to additional information. As an example a map showing case distribution can directly link to the corresponding case information in the system.

It is easy to integrate multimedia in and with web maps. Current web browsers support the playback of video, audio and animation (SVG, SWF, QuickTime, and other multimedia frameworks).

CWS-NS envisions that these innovations and options will make adding a geospatial component to CWS-NS not only doable, but simple to implement and maintain.

2.2.2.9 Optimizing CWS-NS Presentation Performance

CWS-NS application acceptance will be dependant on the performance of the Presentation layer, and will require good performance of the Presentation layer. To this end, CWS-NS has three classes of performance requirements: response times (how fast the system

handle individual requests, what a real user would experience), throughput (how many requests the system can handle), and concurrency (how many users or threads work simultaneously).

Performance of the Presentation Layer comes down to specific best practices both in design and implementation of the application. Please see Appendix B for more details on best practices for the CWS-NS presentation layer to be implemented to maximize performance.

2.2.2.10 Presentation Layer: Summary

Choosing the right presentation layer architecture can be critical to the overall success of the CWS-NS application. The right architecture will provide the right balance between the user experience, ease of development and testing, and the operational requirements of the application. Users are increasingly demanding that their part of this equation is taken into account. It is important that the correct approach is applied from the outset to avoid unnecessary complexity, cost, lack of flexibility, and a poor user experience.

CWS-NS organization must carefully consider the overall needs of the application and compare these to the capabilities of the design approach. The factors that can influence this decision are many and varied. Invariably, design decisions will come down to a compromise between various factors. Understanding these factors and their relative priorities will ensure that the presentation layer architecture meets or exceeds the needs of the CWS-NS application and its users.

2.3 Service Layer

CWS-NS considers a service to be a function that is well-defined, self-contained, and does not depend on the context or state of other services. In the CWS-NS application, web services should be used to implement in a "message-oriented" service architecture where the basic unit of communication is a message, rather than an operation

CWS-NS uses this view of services as the baseline service definition in defining its SOA architecture.

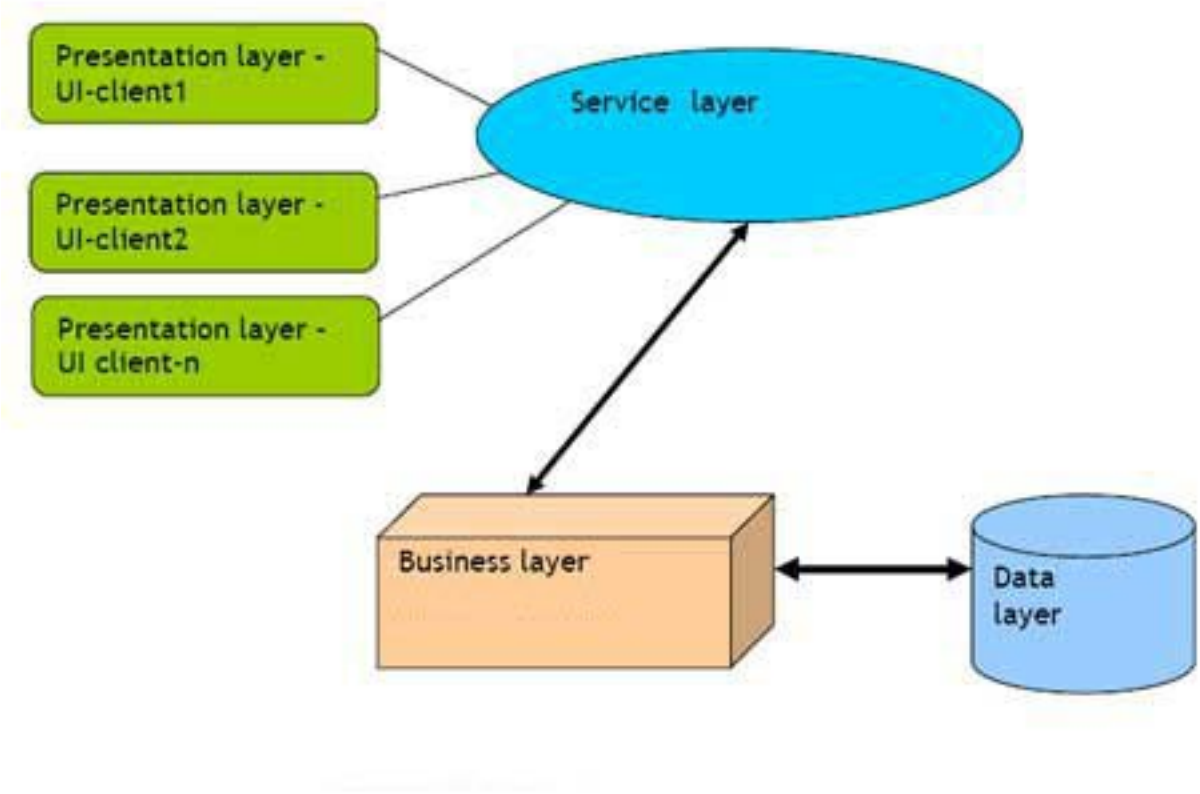

Figure 6 CWS-NS Layer Interactions

2.3.1 Principles for Service Architecture

The following specific architectural principles for design and service definition focus on specific themes that influence the intrinsic behavior of a system and the style of its design. These also provide a clear specific definition of the point CWS-NS would envision from the Service Layer and the services it contains:

- **Service encapsulation** – Many services are consolidated for use under the SOA. Often such services were not planned to be under SOA.
- **Service loose coupling** – Services maintain a relationship that minimizes dependencies and only requires that they maintain an awareness of each other.
- **Service contract** – Services adhere to a communications agreement, as defined collectively by one or more service-description documents.
- **Service abstraction** – Beyond descriptions in the service contract, services hide logic from the outside world.
- **Service reusability** – Logic is divided into services with the intention of promoting reuse.

- **Service composability** – Collections of services can be coordinated and assembled to form composite services.
- **Service autonomy** – Services have control over the logic they encapsulate.
- **Service optimization** – All else equal, high-quality services are generally preferable to low-quality ones.
- **Service discoverability** – Services are designed to be outwardly descriptive so that they can be found and accessed via available discovery mechanisms.
- **Service relevance** – Functionality is presented at a granularity recognized by the user as a meaningful service.

2.3.2 Service Characteristics

With a SOA based application, one of the critical components are the services. CWS-NS envisions Services as having the following characteristics:

- **A mechanism to allow invocation in a distributed manner.** This definition doesn't prevent a Service from being invoked locally; however some kind of distributed invocation is an essential requirement. In general a Service cannot assume that the invoking client is in a shared environment. Also there is no mandated transport protocol. Protocol and payload is irrelevant, what is relevant is that it can be discovered.
- **A mechanism to dynamically introspect the interface.** All Services have a way of describing and advertising its capabilities to the entities that will use its services, and includes information like Quality of Service guarantees and interoperability information. A client service should be able to dynamically invoke the service solely based on introspecting the interface.
- **No implicit state sharing between Services.** Unlike Objects or Components, the Semantics of an invocation will be derived from information available in the incoming invocation and its internal state. The idea is to support complete isolation between services. This also implies the need to use more granular invocation strategies like message passing.
- **Asynchronous Invocation.** Clients to a service cannot demand that a Service respond synchronously.
- **A Standardized Protocol Envelope** providing metadata information about a document's payload. This mechanism supports interception based strategies for implementation of crosscutting functionality that can span multiple Services.

2.3.3 Service Description

CWS-NS envisions a service description for each service in the CWS-NS Application. The service description is a document-based artifact that defines or references the information needed to use a service. This includes the information and behavior models associated with a service. The description will also include information on data associated with service reach-ability, service functionality, and the policies and contracts associated with a service. To do this, CWS-NS envisions each service description must convey the following:

Service Reach-ability - The ability for service participants to locate and interact with one another. Reach-ability includes address to access the service, an indication of whether the service is currently available, and the protocols needed to communicate with the service.

Service Functionality - An unambiguous expression of service function(s) and the real world effects of invoking the function. It should also include technical assumptions, dependencies, or limitations that underlie the effects that can result.

Interaction Policies - Information for prospective consumers pertaining to conditions or constraints when interacting with a service.

Information Model - A definition of the data model required to exchange information with a service and invoke actions defined in the behavior model.

Behavior Model - The characterization of the responses to and the temporal dependencies between the actions that can be performed on a service.

Action Model - The description of actions that may be performed against a service.

Process Model - The temporal relationships between service actions and events.

To fully implement service descriptions within the CWS-NS SOA application, the following must be present:

- A mechanism for describing the service as in WSDL.
- A Web Services framework within which the services will be written and operate.
- A Web Service Registry as a repository of what services are available and how they are accessed.
- A Quality of Service (QoS) framework.
- A Security framework and definitions.
- A Reliable Messaging framework.
- A Transaction handling framework.
- A methodology and capacity for Composition of services.
- A Service Contract which explicitly outlines how the service is used.
- A Service Life Cycle which will handle the service from inception to retirement.

2.3.3.1 Service Description - WSDL

A web service must be described in a way that its functions can be understood and used by all parties which may use or consume CWS-NS Services. Web Services Description Language (WSDL) is perhaps the most mature of metadata descriptions for web services. It allows developers to describe the "functional" characteristics of a Web service – the actions or functions the service performs in terms of the messages it receives and sends. For that these reasons, WSDL is envisioned as the choice for “describing” web services within CWS-NS. WSDL provides to CWS-NS the following:

- A standard, language-agnostic view of services it offers to clients.
- WSDL provides noninvasive future-proofing for existing applications and services and allows interoperability across the various programming paradigms, including CORBA, J2EE, and .NET, etc. thus providing maximum extensibility for CWS-NS.
- WSDL is an XML format for describing services as a set of endpoints that operate on messages containing either document-oriented or procedure-oriented information.
- WSDL describes the operations and messages of the application abstractly and then binds them to a concrete network protocol and message format to define an endpoint. Related endpoints within CWS-NS are then combined into abstract endpoints called services.
- WSDL is extensible to allow description of endpoints and their messages regardless of what message formats or network protocols are used to communicate in the future.
- WSDL provides support for a range of message interaction patterns. It supports one-way input messages that have no response, request/response, and one-way sends with or without a response, as well as several other patterns. The last two patterns enable a service to specify other services that it needs.

Each of these points are crucial to the successful long term usability of the CWS-NS application.

2.3.3.2 Providing a Web Services Framework

For CWS-NS to have a complete information about how the service delivers its interface or what the service expects of the caller when it uses the service, it will need more than just WSDL and XML Schema. These only describe what a service can do by providing a definition of the business interface (including business operations such as open/close cases, etc.), they do not provide information about how the service delivers its interface or what the service expects of the caller when it uses the service. How the service implements the business interface, the sort of permissions or constraints it expects of or provides to requesters, and what is expected or provided in a hosting environment is incredibly important in ensuring the correct interaction with and execution of the service. For example, does the service require security, and if so, what specific scope and type? Does it support transactions? What outcome protocols are supported?

To achieve the type of SOA that CWS-NS envisions, it is important that the Web service interface and message definitions include the expression of the constraints and conditions that are associated with the use of a Web service. The inherent extensibility of XML and WSDL can be used to achieve some of these requirements, but CWS-NS envisions the better approach of the use of a framework for Web Services.

CWS-NS envisions the framework to use the approach of defining a common framework for web services constraints and conditions that allows a clear and uniform articulation of the available options. Such a framework must:

- Enable those constraints and conditions associated with various domains (such as security, transactions, and reliable messaging) to be compose-able with no multiple domain-specific mechanisms.
- Provide support for determining valid intersections of constraints and conditions, where multiple choices are possible.
- Provide a declarative model for implementing the business logic of the Web service factors such issues out of business logic, thereby providing an important separation of concerns.
- Provide an extensible framework that is intended to specifically deal with the definition of these constraints and conditions, and is the preferred framework at CWS-NS.

WS-Policy is critical to achieving interoperability at the higher-level functional operation of the service. Security, transactions, reliable messaging, and other specifications require concrete WS-Policy schema. This allows services to describe the functional assurance that they expect from and provide to callers.

2.3.3.3 Web Service Registries

The transport, description, and messaging are fundamental to allowing web services to communicate in an interoperable way using messages. However, to facilitate this, it is necessary to collect and store the important metadata that describes these services. The metadata must be in a form that is discoverable and searchable by users who are looking for appropriate services they require to solve some particular business problem.

2.3.3.3.1 Universal Discovery with CWS-NS

The Universal Description and Discovery Interface (UDDI) is a widely acknowledged specification of a Web service registry. It defines a metadata aggregation service and specifies protocols for querying and updating a common repository of web services information.

UDDI repositories can be provided in one of three ways:

- **Intra Enterprise UDDI**—An enterprise has a private internal UDDI repository that provides much more control over which service descriptions are allowed to be placed there and used by application developers within that specific enterprise. This would be the form of UDDI that CWS-NS would envision to be at the center of any SOA application.
- **Inter Enterprise UDDI**—This basically scopes the content of the UDDI to services that are shareable between specific business partners. There may be CWS-NS services that will be shared with other agencies within the state.
- **Public UDDI**—These are UDDI repositories that can serve as a resource for Internet-based web services. This is not a form of UDDI likely to be used by CWS-NS due to the nature of the information that CWS-NS contains, and the privacy constraints it must operate under.

2.3.3.3.2 Exchanging Meta-Data

WS-Policy proposes a framework that extends the service description features that WSDL provides. Having more refined service descriptions, qualified by specific WS-policies, supports much more accurate discovery of services that are compatible with the business application that is to be deployed. In a service registry (such as a UDDI registry), queries of WS-Policy-decorated services enable the retrieval of services that support appropriate policies in addition to the required business interface.

Although service registries are important components of some web services environments, it is often necessary to address the request of service information directly to the service itself. In this scenario, or in a SOA solution that does not use a UDDI, CWS-NS would envision the use of WS-MetaDataExchange specification to define protocols that support the dynamic exchange of WS-Policy and other metadata that is relevant to the service interaction (such as XML Schema and WSDL descriptions) between interacting web services endpoints. WS-MetaDataExchange provides CWS-NS with the following capabilities within such an exchange:

- WS-MetadataExchange allows a service requester to ask a service provider directly for all or part of its metadata, without the involvement of a third-party registry.
- WS-MetadataExchange protocol service, endpoints can exchange policies at runtime and use them to bootstrap their interaction from information about the settings and protocols to be applied.
- WS-MetadataExchange allows web services when policy information is not in a repository or when a requester receives a reference to a service through some mechanism other than a direct query on a registry

- WS-MetadataExchange allows for direct dynamic exchange of policies which supports the customization of each interaction based, for example, on the identity of the other endpoint or any other aspect of the context under which the interaction takes place.

2.3.3.4 Quality of Service (QoS) as Part of CWS-NS

Specifications in the domain of Quality of Service are related to the quality of the experience associated with interaction with a web service, and deal specifically with the requirements that are associated with the overall reliability of the web services. The specific issues involving QoS within the Service Layer of CWS-NS include security, reliability of message delivery, and support for transactions (guaranteeing and agreeing on the outcome of the business application).

2.3.3.5 Security

Security is of fundamental concern in any application, particularly in child welfare where *who* has access to information and *how* that information is used is fundamental. Security is covered in depth in section 7 of this document, but is a fundamental part of QoS in any SOA application, especially CWS-NS.

WS-Security is the basic building block for secure web services. Today, most distributed web services rely on transport-level support for security functions (for example, HTTPS and BASIC-Auth authentication). It is envisioned that CWS-NS will use this protocol and several other protocols and standards to authenticate and authorize access to CWS-NS information and processes. Security in CWS-NS would cover at a minimum the following:

- Identity Management Points and Related Processes
- Authentication Services
- Security Tokens and Standards
- Trust Services
- Federation Services
- Policy Management Points and Related Processes
- Roles and Attributes
- Real Time Rules
- Policy Decision Points
- Policy Enforcement Points
- Trusted Paths
- Message Encryption
- Message Signing
- Business Relationship Profiles
- Personal Profiles

More details on how CWS-NS envisions security to be implemented are contained in Section 7 of this document.

2.3.3.6 Reliable Messaging

In an internet application such as CWS-NS, communication channels are typically unreliable. Connections break, messages fail to be delivered or are delivered more than once, and perhaps in a different sequence to that in which they were sent. WS-ReliableMessaging addresses these issues and defines protocols that enable CWS-NS application web services to ensure reliable, interoperable exchange of messages with specified delivery assurances:

- In-order delivery—The messages are delivered in the same order in which they were sent.
- At least once delivery—Each message that is sent is delivered at least one time.
- At most once delivery—No duplicate messages are delivered.

These assurances can be combined to give additional ones. For example, combining at least once and at most once gives exactly one delivery of a message. The protocol enables messaging middleware vendors to ease application development and deployment for web services by providing services that implement these protocols, possibly layered over their existing proprietary message exchange protocols. WS-Reliable Messaging protocols allow different systems to reliably exchange messages, thereby bridging different infrastructures into a single, logically complete, end-to-end model for web services reliable messaging. CWS-NS will be using this to interact with other existing agencies, processes, and services, both inside and outside the CWS-NS Solution.

2.3.3.7 Managing Transactions Within the Application

Dealing with CWS-NSs' business scenarios will necessitate the development of sub-applications that consist of multiple web services exchanging many messages. For those sub-applications, dealing with the failure of any component Web service of the application within the context of the whole CWS-NS solutions is a requirement. A coordinated orchestration of the outcome of the participating services that make up the CWS-NS application is essential so that a coherent outcome of the whole application can be agreed upon and guaranteed. Therefore, it is important that the web services involved are able to do the following:

- Start new tasks, the execution and disposition of which are coordinated with other tasks.
- Agree on the outcome of the computation or task.
- Agree on management of the final disposition of a task and associated messaging.

WS-Coordination, WS-AtomicTransaction, and WS-BusinessActivity define protocols that are designed specifically to address these requirements, and should be used within the CWS-NS application to manage transactions.

WS-Coordination is a general mechanism for initiating and agreeing on the outcome of multiparty, multimessage Web service tasks. WS-Coordination has three key elements:

- A coordination context—This is a message element that is associated with exchanges during the interaction of web services. This coordination context contains the WS-Addressing endpoint reference of a coordination service, in addition to the information that identifies the specific task being coordinated.
- A coordinator service—This provides a service to start a coordinated task, terminate a coordinated task, allow participants to register in a task, and produce a coordination context that is part of all messages exchanged within a group of participants.
- An interface—Participating services can use the interface to inform them of an outcome that all of the participants have agreed upon.

This ability to manage and coordinate tasks is an essential part of the CWS-NS Application and will be key to the extensibility of the application.

Although WS-Coordination is a general framework and capability, WS-AtomicTransaction and WS-BusinessActivity are two particular protocols that compose with and extend the WS-Coordination protocol to define specific ways to reach overall outcome agreement. They extend this framework to allow the participants in the distributed processes typical of CWS-NS to determine outcome robustly.

WS-AtomicTransaction defines a specific set of protocols that plug into WS-Coordination to implement the traditional two-phase atomic ACID or CRUD transaction protocols which will be at the bottom of the service stack within CWS-NS. However, traditional atomic transactions and the WS-AtomicTransaction protocol are not always suitable for the following reasons:

- Transaction protocols for business transactions have to deal with long-lived activities, such as building a case or determining eligibility. These differ from atomic transactions in that such activities can take much longer to complete.
- The results of interim operations in CWS-NS may need to be visible to others before the overall activity has completed, particularly as the interim operations may need human intervention to determine the final course of the transaction.
- Mechanisms for fault and compensation handling to reverse the effects of tasks that were completed previously within a business activity will need to be introduced into the services.

WS-BusinessActivity defines a specific set of protocols that plug into the WS-Coordination model to provide such long-running, compensation-based transaction protocols which will be critical to certain CWS-NS transactions.

2.3.3.8 Service Composition

The existing web services standards do not provide for the definition of the business semantics of web services. Today's web services are isolated and opaque. The CWS-NS application must overcome this isolation by connecting web services and specifying how to jointly use collections (compositions) of web services to realize much more comprehensive and complex functionality—typically referred to as a business process. A business process specifies the potential execution order of operations from a collection of web services, the data that is shared between these composed web services, which partners are involved, and how they are involved in the business process, joint exception handling for collections of web services, and so on.

The definition of services and composition of web services are required by CWS-NS as part of the application architecture and its' SOA framework

2.3.3.8.1 Composition of Web Services

CWS-NS envisions a composition mechanism for the CWS-NS application. Business Process Execution Language for web services (WS-BPEL, also shortened to BPEL) provides a language to specify business processes and process states and how they relate to web services. This includes the following required capabilities:

- Specifying how a specific business process uses web services to achieve its goal.
- Specifying web services that a business process provides.
- Business processes must be fully executable and are portable between environments.
- A business process interoperates with the web services of its partners, whether these web services are realized based on BPEL or not.
- Composition supports the specification of business protocols on complex internal business processes.
- The composition must support the specification of a broad spectrum of business processes, from fully executable, complex business processes over more simple business protocols to usage constraints of web services.
- The composition must provide a long-running transaction model that allows increasing consistency and reliability of web services applications.
- Correlation mechanisms are supported that allow identifying state-full instances of business processes based on business properties.
- Partners and web services can be dynamically bound based on service references.

For this reason, CWS-NS would envision the use of BPEL in the composition of its' application services.

2.3.4 Service Contract

As a service based application, a service contract for every service in the CWS-NS system is essential to ensure the viability, extensibility and ongoing usefulness of any service within the application. A service contract provides the following:

- It outlines a set of technical data, and often business information as well.
- The definition of whoever is providing the Web service, and whoever is consuming the Web service.
- It provides details about the service being created by the provider. In creating the contract, both sides know what will be provided and required by each, possibly before any coding is actually done.
- It specifically defines what service the provider will supply, as well as the data -- if any – the provider will supply. This is the overarching reason for the contract, and needs to be spelled out clearly; if things go awry here, there will almost certainly be problems down the road.
- It needs to detail how exactly services and data will be provided. This part of the contract is a two-sided conversation; it needs to detail not only how the service will be provided, but also what the consumers will provide in return for that service.
- It also outlines the policies that each side agrees to with regard to the service – who can access the service, what security rules and procedures must be followed, and so on.

The service contract needs to be in place as part of the definition for each service within CWS-NS, both in order to define what will be in the service, and how the service behaves.

2.3.4.1 Contract First Services

Given that CWS-NS is dependant on the services and their contracts to provide the functionality needed in the application, it is essential that the contracts be created as part of the design process, and not merely as a documentation effort after the fact. To ensure the integrity of CWS-NS SOA web services, a contract-first approach, that is, developing web services that start with the XML Schema/WSDL contract first followed by the code second must be taken for CWS-NS.

When creating Web services, there are two development styles:

- Contract Last and
- Contract First.

A contract-last approach starts with the code, and lets the Web service contract be generated from that. A contract-first approach starts with the WSDL contract, and uses code to implement that contract.

CWS-NS envisions a contract-first approach to developing web services, which means that the on the XML completely, while using whatever coding language as an implementation language.

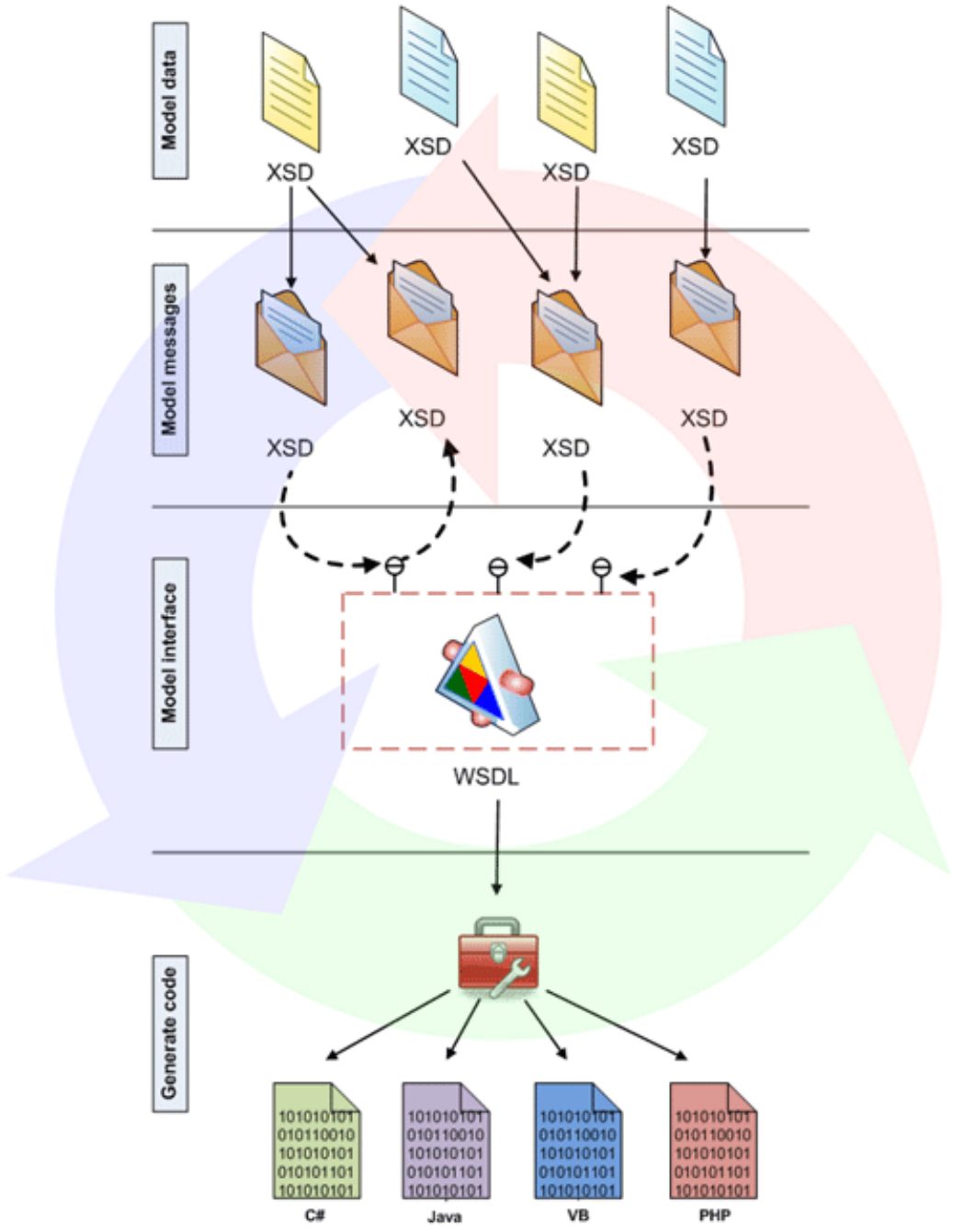

Figure 7 CWS-NS Contract First Approach

2.3.4.2 Contract-first versus Contract-last

There are many reasons for not using the Contract-Last development style for CWS-NS:

- The contract-last development style results in the web service contract (WSDL and any XSD) being generated from code. Using this approach, there is no guarantee that the contract stays constant over time. Each time the code changes, there will be subsequent changes to the web service contract.
- When a web service contract changes, users of the contract will have to be instructed to obtain the new contract and potentially change their code to accommodate for any changes in the contract.
- In order for a contract to be useful, it must remain constant for as long as possible. The contract is the interface for the process calling the service and must be stable. If a contract changes, all of the users of the service will need to get the new version of the contract.
- When code is automatically transformed into XML, there is no way to be sure what will be included in the generation of the XML, which will result in slow response times.
- When using contract-first, the XML explicitly describes what XML is sent where, thus making sure concise and complete information gets where it needs to go.
- Even though a contract must remain constant for as long as possible, they do need to be changed sometimes. This typically results in a new code interface and a new implementation of that interface. Of course, the old service must be kept around, because there might be clients who have not migrated yet.

Contract-First avoids these issues and provides additional capabilities for ensuring the integrity of the application:

- Defining the schema in a separate file allows for reuse of that file in different scenarios. This definition can be reused in other schemas, or even in WSDL files.
- If using contract-first, there will be a looser coupling between contract and implementation. This loose coupling allows us to implement both versions of the contract in one class and use an XSLT stylesheet to convert any "old-style" messages to the "new-style" messages.
- SOA means that any web service must work in a heterogeneous environment. To make the web services last and truly be portable and extensible, they must be able to be invoked by any toolkit, any language, and any platform. To make these services work with any platform or Web service toolkit (interoperable), it's best to follow the most accepted standards such as those set up by the Web Service Interoperability group (WS-I).
- Contract-first makes following standards easier because all of the standards are written for the WSDL description and SOAP message. Create the WSDL and it can be created

to match the standards. When designing the SOAP message, design one that matches the standards.

- A contract-first approach always results in better long-term development, interoperability, and maintenance which is one of the key benefits to SOA and a benefit that CWS-NS intends to realize

2.3.4.3 Formalizing the Service Contract

Formalizing the service contract is the more technically oriented part of the design for CWS-NS. It will define the rules for interacting with the service. The data points needed for the service contract are:

- What message format will the service use? Typical answers here include SOAP, Proprietary XML, and various RPC mechanisms.
- What protocol will the caller use to communicate with the service? Typical answers here include HTTP and various RPC protocols.
- What level of availability should the caller expect for the service? Will the service be available 24x7? What is the service level agreement that the hosting team is willing to sign up for?
- What is the expected interaction on the part of the caller when the service is not available? Should he call again later? Try again right away? Discard the call? Return an error to the calling system?
- If the service call is part of an expected sequence of service calls, define the sequence. This may include call-back mechanisms. Note that call-back mechanisms require the reflected service to be as well defined as the initial service, using all of the rules described here.
- What latency should the caller expect for the synchronous return from the service call? (In messaging systems, this is the time that the caller should expect to wait for the acknowledgement or receipt.)

These are the technical aspects of the service that should be included to make sure the contract is complete and usable as part of CWS-NS.

Once these points haven been designed, this constitutes the high level design of the services. This service contract and all of the rest of the design elements above must be published in a place where the calling CWS-NS application (and the programmers / administrators / support teams) can get access to them.

2.3.4.4 Service Contract Contents

A service contract needs to have the following components:

- **Header**
    - Name – Name of the service. This should indicate in general terms what the service does, not just its definition
    - Version – The version of this service contract
    - Owner – The person/team in charge of the service
    - Responsibility assignment (RACI)
    - Responsible – The role/person/team responsible for the deliverables of this contract/service. All versions of the contract
    - Accountable – Ultimate Decision Maker in terms of this contract/service
    - Consulted – Whom one must consult before action is taken on this contract/service. This is two-way communication. These people have an impact on the decision or the execution of that decision.
    - Informed – Who must be informed that a decision or action is being taken. This is a one-way communication. These people are impacted by the decision or execution of that decision, but have no control over the action.
    - Type – This is the type of the service: to help distinguish the layer in which it resides. Different implementations will have different service types. Examples of service types include:
        - Presentation
        - Process
        - Business
        - Data
        - Integration
- **Functional**
    - Functional Requirement (from Requirements Document) – Indicates the functionality in specific bulleted items — what exactly this service accomplishes. The language should encourage test cases to prove the functionality is accomplished.
    - Service Operations – Methods, actions etc. Must be defined in terms of what part of the functionality it provides.
    - Invocation – Indicates how to invoke the service. This includes the URL, interface, etc. There may be multiple invocation paths for the same service. One may have the same functionality for an internal and some external clients, each with different invocation means and interfaces. Examples:
        - SOAP
        - REST
        - Events Triggers

- **Non-Functional**
    - Security Constraints – Defines who can execute this service in terms of roles or individual partners etc. and which invocation mechanism they can invoke.
    - Quality of Service – Determines the allowable failure rate
    - Transactional – Is this capable of acting as part of a larger transaction and if so, how do we control that?
    - Service Level Agreement – Determines the amount of latency the service is allowed to have to perform its actions
    - Semantics – Dictates or defines the meaning of terms used in the description and interfaces of the service
    - Process – Describes the process, if any, of the contracted service

2.3.5 Service Life Cycle

To ensure communication and collaboration between CWS-NS Business and IT in the service oriented environment consideration must be taken of the complete life cycle of a service. Each step of the life cycle will require a contribution from different stakeholders and different decision parameters. Each step can be seen as a use case of the service oriented architecture with its own actors defining Business and IT requirements. The following actions must be included in a Service Life Cycle Plan for CWS-NS:

- **Define the service requirement** - Specifying the purpose, functionality, interfaces etc of the services as well as service level agreements.
- **Plan the service development** - Prioritizing when the service must be developed as well as approving the budget and resources required.
- **Design/Selecting service** - Specifying in detail how the service will comply with the requirements.
- **Build/Acquire service** - Developing the service or acquire the service according to the design specification.
- **Test service** - Making sure the service and actually can perform in an operational environment.
- **Manage service portfolio** - Monitoring services availability, service states and compliance against the agreed service levels.
- **Deploy service** - Making the service available so that it can be called on in the operational environment
- **Publish service** - Making the service definition and state knowable so that the service can be found and used by consumers.

- **Find service** - A consumer requesting or identifying a service that will satisfy a requirement.
- **Invoke service** - Adhering to security requirements, and protocols to call on the service and receive a response from the service called within an operational context
- **Enable service integration** - Enable the infrastructure with the capacity to coordinate and enable the execution of services.
- **Change service** - Extending the functionality of the service to adapt to new user requirements
- **Decommission service** - phasing the service out when it will no longer be supported or needed.

2.4 Business Layer

CWS-NS is a business driven solution and the business is what will drive all the activities being taken by the application. It is important to understand the major components of business processes in SOA within a business vision. SOA, as an architectural construct, is based on the notion of being able to initiate dynamic collaboration across constituents. SOA therefore requires that the component parts of how a business operates be delivered as services. These services are just that—services in isolation without business context. For example, a business service might be case management. This service will include the best practices for how a case is designed for a county. It does not include the rules that govern its use in a specific instance—how a case is handled when two counties share parts of the case and the business rules for eligibility when crossing county lines. The business service does not include the details of how all the constituents involved come together to present a seamless business interaction to the customer. To implement, business process management must begin with a combination of an overall business view supported by the notion of a business flow, and end with a way to manage the flow and the rules that make a process.

A key distinction between the past focus on process and where we are headed in SOA with business processes is the difference between customized workflows and business process flows. Customized workflows in an application programmatically produce a flow between components or full applications based on the need to solve a specific problem. These are fixed and hard to alter and don't allow dynamic changes. Business process flow in an application, in contrast, is designed to enable business services that can be modified and changed dynamically based on changing business conditions. It separates out rules of engagement (based on certain circumstances these are the steps to follow) from business policy rules (based on corporate governance and policies for doing business overall).

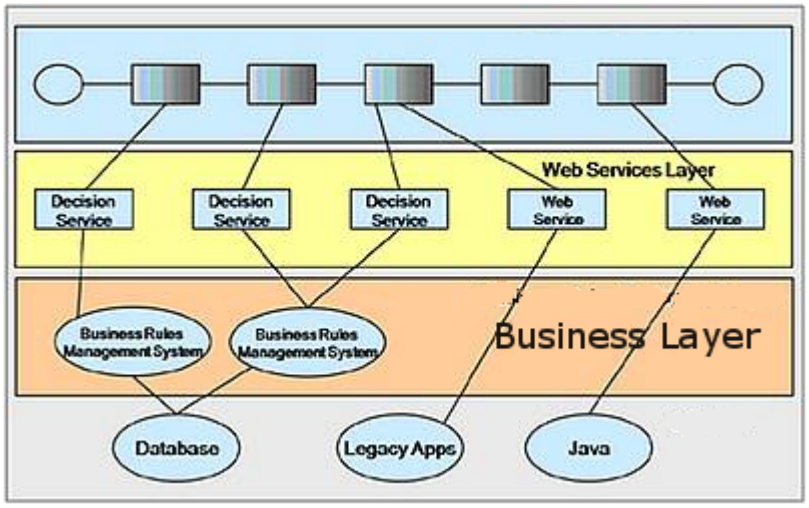

Figure 8 CWS-NS Business Layer

The CWS-NS business processes should be related to the CWS-NS "business vision" and they should be divided into strategic and standard processes. The strategic process should be prioritized and used as the basis on which to develop and implement the Services.

CWS-NS Business Vision:

- Model real life business objects (such as Clients, Case, Incident, and Eligibility, etc.)
- Prescribes how business objects interact with one another – these are the processes.
- Enforces the routes and the methods by which business objects are accessed and updated
- Defined Business logic which comprises:
    - Business rules that express business policy (such as channels, location, logistics, prices, and products); and
    - Workflows that are the ordered tasks of passing documents or data from one participant (a person or a software system) to another and form the process activity.

In a multilayered architecture the CWS-NS application will use, business processes and logic should be encapsulated in the Business Layer. CWS-NS advocates storing all business processes and logic in a business layer, and not encoding any business logic in the application's user services or database services tiers.

2.4.1 Process-Centric CWS-NS SOA

Realizing a process-centric SOA within CWS-NS can provide the glue between modular business services for the end-to-end business processes that the system will rely on. To complete this picture, all forms of business processes must be defined, including those of a collaborative nature, and those processes must be delivered reliably so that they, in turn, can be leveraged by other business processes and services within the CWS-NS system.

Standards such as BPEL and Web services effectively enable the implementation of private processes and collaborative processes based on ad hoc collaboration definitions. The process-centric model of SOA considers processes and collaborations as first-class citizens. With this vision, business processes, collaborations, information exchanges, and work activities are expressed through service aggregation - a combination of BPEL orchestration and WS-CDL choreography:

- **BPEL orchestration** is concerned with process-flow coordination and implements the behavior of a single participant/ business entity. BPEL with Web Services is used to define the coordination of a process flow as well as related semantics, including parallelism, sophisticated exception handling, data transformation, and transaction compensation facilities.
- **WS-CDL choreography** is concerned with multi-participant collaborations. The Web Services Choreography Description Language (WS-CDL) standard is emerging as a way to specify contracts of interoperable business processes collaborating to accomplish a common business goal. Choreography is built on top of BPEL.
- **BPEL and WS-CDL** together can express any business process, including trading partner interactions. This partnership can allow for CWS-NS business processes to be fully modeled and documented in a standard based format.

2.4.1.1 BPEL: Automating Business Processes

In the CWS-NS SOA architecture (and Web services), services must be combined into business processes/business flows in order to realize the business needs of the CWS community. BPEL provides a standard, portable language for coordinating the flow of business process services. Since BPEL is a standard, it creates a common language for developers. It's built from the ground up around XML and Web services.

The process-oriented realization of BPEL also adds the following capabilities on top of standard BPEL:

- Advanced data handling and transformation activities that are used to manipulate variables using XQuery
- Advanced process life-cycle management capabilities such as versioning, Suspend Process instance, and Resume Process instance

- Activities that use a business rules framework, allowing model business rules in a purely declarative way
- Advanced human workflow activities such as assigning tasks to specific users, sending notifications, and approving requests through mechanisms such as task lists

BPEL is currently the most mature of the standards, but not the only one. The capabilities of any standard used in CWS-NS to automate business process via services must meet the same criteria and be as robust as BPEL.

2.4.1.2 WS-CDL: Collaborations Between Peer-to-Peer Business Processes

Capturing the collaborations between two or more business processes is the domain of WS-CDL. It enables the formal modeling of the common observable behavior of all collaborating participants from a global viewpoint.

WS-CDL describes the global message exchange of participants during their joint interaction, global reactive rules for declaratively prescribing normal/abnormal progress, common agreement of the outcomes, and a recursive composition model that allows for building choreographies incrementally by combining existing choreographies. In this way, complex business processes can be implemented as a collection of services, which, in turn, implement complex business processes themselves.

Choreography perfectly complements the effort of orchestration and BPEL, offering a global viewpoint into the peer-to-peer interacting business processes that are defined and implemented in BPEL.

2.4.2 Business Rules

The handling and management of Business Rules that are part of every Business Process are a very important part of the CWS-NS SOA Concept. Normally the Business Rules are just hidden somewhere in the existing systems, which means they can't be managed and changed easily. This is unacceptable within CWS-NS, where business rules need to accessible, extensible and customizable without interfering with the CWS-NS application.

As part of a process driven design, the Business Rules have to be defined and checked against the Business Vision. A Business Rule must be related to one or maybe several entities. In that way they are always related to a specific Service, but there may also be a need to relate a Business Rule to a specific Service Interface or composition which brings together several Services.

Automated business processes that have business logic embedded inside often take substantial time to change, and such changes can be prone to errors. CWS-NS needs to be able to manage business rules independently from the process:

- Business rules tend to change more frequently than does business process.
- When rules are embedded in process, changes are significantly more difficult to execute than when they are managed in a Business Rules Management System (BRMS).
- Single point of maintenance: A business rule may be used in many different processes, and/or at several points in a single process.
- By maintaining business rules in a BRMS, the change may be made once, and sometimes simply by a business analyst.

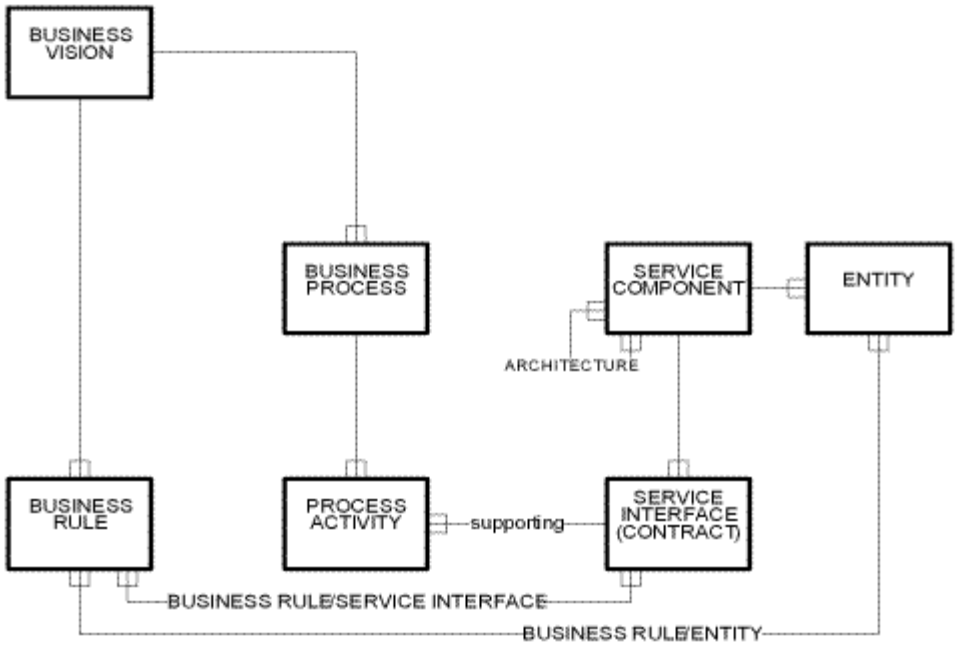

Figure 9 CWS-NS Business Rules Interaction

To further decouple the business logic from the code itself, CWS-NS also envisions that a business rules approach would be used to implement business logic in the SOA Business Layer using a Business Rules Engine and a BRMS would support the authoring, deployment and management of business rules.

By externalizing logic with a BRMS where it can be authored and maintained by SMEs, and making it available as a service within the context of an SOA stack, rules become dynamic decision services that are callable from other parts of the CWS-NS application, services, and process flows, etc.

2.4.2.1 Business Rules Approach

Business rules are abstractions of the policies and practices of a business organization. CWS-NS envisions the Business Rules Approach to be a development methodology where rules are in a form that is used by, but does not have to be embedded in, business process management systems.

The Business Rules Approach formalizes an enterprise's critical business rules in a language that managers and technologists understand. Business rules create an unambiguous statement of what a business does with information to decide a proposition. The formal specification becomes information for the process and rules engine to run.

Advantages

The adoption of a business rules approach to the Business Layer adds another tier of automation to CWS-NS business processes. This approach has the following major advantages:

- Lowers the cost incurred in the modification of business logic
- Shortens development time
- Rules are externalized and easily shared among multiple applications
- Changes can be made faster and with less risk
- Increasing the manageability of business processes as rules becomes more accessible.
- A business process is often a complex map of flow controls. It might have many sub-processes, decisions and while loops. Wherever a decision or while loop appears, business rules can evaluate the data provided by the process and control the basis for change in flows.
- New regulations or business strategies may affect the rules without changing core business processes. New applications or procedures might change the business process. In either case, a composite approach to rules and processes can be very flexible.

2.4.2.2 Business Rules Methodology

Gathering business rules is also called rules harvesting or business rule mining.

- The rules can be extracted from IT documentation (like existing business rules in the CWS/CMS system, use cases, specifications or system code).
- Workshops and interviews with subject matter experts (commonly abbreviated as SMEs) must also be used to gather and enhance business rules.
- The CWS-NS application already has a starting source for rules in the CWS/CMS rules database. This source along with the business Subject Matter Experts (SMEs) should be used to create, update and document business rules.

If these rules are not collected or edited in a consistent manner, they are not valuable. In order to teach business people and the SMEs about the best ways to gather and document business rules, a Business Rules Methodology must be used. This methodology must define a process of capturing business rules in natural language, in a verifiable and understandable way. Using this process should not be difficult to learn, can be performed in real-time, and empowers business stakeholders to manage their own business rules in a consistent manner.

2.4.2.3 Categories of business rules

The CWS-NS application will be very dependant on the use and implantation of business rules. This means that careful consideration must be given to the types of rules and how they might be used in the application. Business rule falls into one of four categories:

- **Definitions of business terms –** The most basic element of a business rule is the language used to express it. The very definition of a term is itself a business rule that describes how people think and talk about things. Thus, defining a term is establishing a category of business rule. Terms have traditionally been documented in a Glossary or as entities in a conceptual model.

- **Facts relating terms to each other –** The nature or operating structure of an organization can be described in terms of the facts that relate terms to each other. To say that a customer can place an order is a business rule. Facts can be documented as natural language sentences or as relationships, attributes, and generalization structures in a graphical model.

- **Constraints (also called "action assertions") –** Every enterprise constrains behavior in some way, and this is closely related to constraints on what data may or may not be updated. To prevent a record from being made is, in many cases, to prevent an action from taking place.

- **Derivations –** Business rules (including laws of nature) define how knowledge in one form may be transformed into other knowledge, possibly in a different form.

Each of these types of business rules must be captured and stored in a usable form within the CWS-NS Business Layer and a BRMS, and must be available for update or deletion at anytime without disturbing the CWS-NS application.

2.4.2.4 Business Rules Technical Details

The programs designed specifically to run business rules are called rule engines. More complete systems that support the authoring, deployment and management of business rules are called business rules management systems (BRMSs). CWS-NS envisions that all business rules will be captured and managed using both a BRMS and a business rules engine.

There are several technical and implementation considerations for CWS-NS Business Rules:

- Many commercial rule engines provide the Rete algorithm, or a proprietary algorithm that embodies many of the principles of Rete. Since CWS-NS is a stateless application

where evaluating decision tables and trees will be a major part of the processing, an algorithm that exploits the hierarchical relationships between the rule conditions may perform better than a simple Rete or sequential algorithm tuned for discrete rules.

- Business rules can be expressed in a way similar to conventional programming languages or in languages resembling natural ones, including BPEL.
- Business rules can also be expressed in user-friendly rule forms such as decision tables and decision trees.
- CWS-NS users must be provided with a suitable interface to design or edit simple rules, and decision tables or trees. This interface must make it is possible for business users to check or change rules directly, with minimal IT involvement.
- Business Rules additions, updates or changes should not require a recompilation of code, but rather should be picked up in the next stateless access of business logic.

2.4.2.5 Rules Language

When rules are expressed in a way similar to a natural language, it is necessary to first define a vocabulary to be used:

- The vocabulary must contains words and expressions that correspond to business objects and conditions and operations involving them.
- To make the rules executable by a rule engine, it is necessary to implement the operations and conditions in a programming language.
- With a defined and implemented vocabulary, it is relatively easy to write rules in a BRMS, and a suitable framework for making the rules accessible must be built.
- Changes must be able to be made quickly as long as they can be expressed in the existing vocabulary. If not, the vocabulary must be expanded accordingly.

The approach of separating the vocabulary from the logic makes it possible for business rules to be modeled, with the business user taking the part of mapping their business logic and IT being responsible for integration of data as well as integration of the generated code into the target application. This provides a separation of concerns between the business and IT and their resulting roles and responsibilities in the CWS-NS application.

For CWS-NS, the maximum value of SOA architecture is realized by blending SOA with a process-centric view. The basic building blocks to do this are already in place within standard SOA components and standards like WS-CDL are emerging to support the full life cycle of collaborative business processes. CWS-NS envisions to see this view point and approach taken to implementing processes within the SOA architecture.

2.5 Data Layer

The purpose of the section is to outline at a high level, the design & architecture of the data layer to be used in the CWS-NS SOA. The data layer encapsulates the data abstraction / access logic, and data management technologies used. This divides the Data Layer into two sections, or tiers. It also clearly separates the data access logic from business logic.

The data abstraction tier must provide a generic interface for database operations, for all services (mostly entity services / processes) to access / update the data stores. There should not be any direct data access code in the services. This clear separation will keep services transparent to any changes to data access technology in the future as long as the interface to the data layer remains the same.

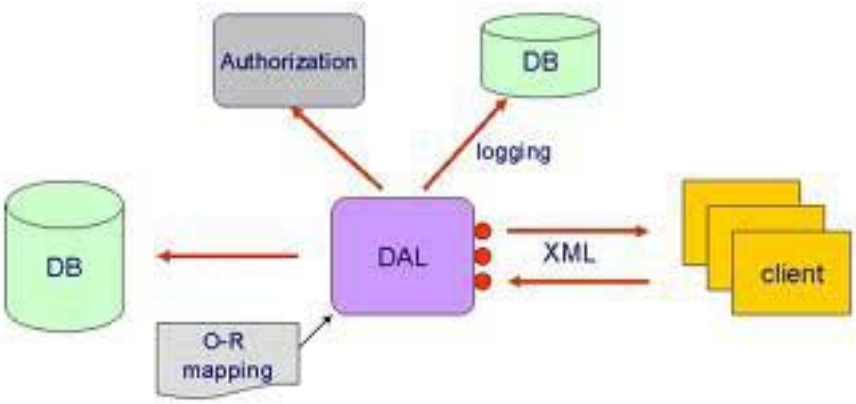

Figure 10 CWS-NS Data Layer

It is worth noting the distinction between simply exposing data as services and truly building a SOA application. Many applications are written without a data abstraction layer. Indeed, modern development environments make it very easy to bind an application or service directly to a physical data source. While data services can often be quickly developed and delivered in this manner, this approach predictably results in services and consuming processes becoming tightly coupled to the underlying data. Any change in the data or the consuming processes causes a ripple effect throughout the entire stack. CWS-NS does not want this solution as part of it's application. CWS-NS envisions that some sort of process or framework will be used in the data layer to transform objects to a relational representation, known as data abstraction.

2.5.1 Managing Complexity with a Data Abstraction Tier

Data abstraction hides the complexity of data by defining a new, better organized structure that exists only in the abstraction itself. The result is that an application (or another service) can request the data in a well-organized, logical format, without having to worry about its actual physical layout. As an example, an application service may request a case record

from the data abstraction layer. Data is fetched from potentially many data sources, transformed into the agreed logical structure, and returned to the calling service.

To provide data to services, the natural implementation of a data abstraction layer is to model the data in XML, which makes it an ideal fit for CWS-NS SOA implementation because of the richness of data defined via XML Schema fully supports the creation of coarse-grained and loosely coupled services, defined in business terms. An XML-based data abstraction layer solves two problems simultaneously: it hides the complexity of the back-end systems so that the CWS-NS application can avoid the messy details, and it provides data structures at an ideal level of granularity in support of CWS-NS SOA.

2.5.2 Data Abstraction Benefits

The potential benefits for building a data abstraction layer for the SOA take many paths:

- The mandate to deliver data aligned with business definitions requires that logic be defined and exposed in a data abstraction layer.
- A properly defined logical layer leads directly to increased reusability opportunities, perhaps the most fundamental of all SOA-related benefits.
- Using a data abstraction layer dramatically reduces the cost of systems in the long run.
- Providing loose coupling achieved through a well-designed data abstraction layer making changes to data painless to the application. By contrast, tight coupling and changes to the data or the application cause a ripple effect through many systems.
- The loose coupling available through a data abstraction layer provides long term cost savings by isolating many of these changes to the appropriate architectural layer.
- Physical data can be reorganized without affecting applications, as the "contract" between applications and data remains the same.
- Changes to the application can often be accomplished with modifications only to the data abstraction layer implementation. For example, if a new source is added to a case activity history, then that new source can be incorporated using the exiting formats, extending the implementation of the service without changing the interface contract.

2.5.3 Modeling Data and Data Management

While the services themselves may appear central to the implementation of SOA, they represent only the visible face of SOA. At the heart of any SOA implementation must be a data model. Furthermore, the data model driving SOA must be an integrated data model that integrates all underlying data models and business processes. This brings focus back to the data model itself and how it implements the business functions through organization

and access to business information. To be fully successful, CWS-NS SOA must have a fully documented and realized data model supporting the application.

2.5.3.1 Integrate the Data Model

While the services themselves may appear central to the implementation of SOA, they represent only the visible face of SOA. At the heart of any SOA implementation must be a data model. Furthermore, the data model driving SOA must be an integrated data model that integrates all underlying data models and business processes.

In order to fully exploit service-oriented business applications any SOA development should start by focusing on integrating the processes and underlying data models, rather than on integrating individual application components. The integrated data model is the source of all data definitions and interface definitions needed by services, but it is also the basis for resolving model-to-model mappings in the data access layer.

Crucial to a successful SOA data model implementation are the following points:

- The language of process descriptions can be anything that is rich enough for the task (e.g. UML), but the expression of the data model for the services layer must be in XML Schema.
- The integrated data model should be treated as an active master for ongoing maintenance and development, rather than a passive reflection.

2.5.3.2 XML and the Data Model

Within CWS-NS, XML schema is the appropriate expression of the integrated data model for SOA services where the services are web services. This means a common approach to SOA based on XML and Web services;

- Using Web Service Definition Language (WSDL) to describe the service interface and marking up the document payload in XML.
- The XML document payload is one part of the service that is described by an XML schema, either implicitly or explicitly.
- The XML schema is the metadata upon which the service is based as far as the data is concerned, and the WSDL is the metadata that controls the service as far as the technical implementation of a process is concerned.
- All other protocols in a SOA for security, transport, handshaking, and so on are XML-based.

It is therefore highly recommended that metadata in a SOA is captured and made accessible at a high level in XML Schema format.

For collaborative development on the basis of a fully integrated data model, there must be:

- A software 'build' mechanism around the parts of the integrated data model that are expressed in schemas.
- There should be no management of metadata at the schema level.
- There must be a user administration framework with roles, groups, permissions, and security.
- There must be conflict resolution, transaction support, and automated generation of schema releases and associated files from identifiable versions of the integrated data model.
- There must not be any management metadata by editing schemas and transformations.

This means that CWS-NS should have a model-driven architecture for managing the integrated data model, in which the XML parts are managed in a true single source object model. Only then can metadata take on the active role that will enable CWS-NS SOA to deliver the benefits of flexibility promised at the outset.

2.5.3.3 Data Management

CWS-NS has no expectations about which database or data management technology is chosen except that it must support both the business and technical requirements of the CWS-NS Application.

3 Information Management

Information Management (IM) is the collection and management of information from one or more sources and the distribution of that information to one or more audiences. This sometimes involves those who have a stake in, or a right to that information. In short, information management entails organizing, retrieving, acquiring and maintaining information. It is closely related to and overlapping with the practice of Data Management. CWS-NS needs strong Information Management capabilities in order to give each social worker and their supervisors the ability to process the immense amounts of information gathered by the CWS-NS system and to make the best decisions using that information.

3.1 Business Intelligence

Business intelligence usually refers to the information that is available for the enterprise to make decisions on. A data warehousing (or data mart) system is the backend, or the infrastructural, component for achieving business intelligence. Business intelligence also

includes the insight gained from doing data mining analysis, as well as unstructured data. For CWS-NS, the context for discussing business intelligence will be in using a data warehouse infrastructure and data mining.

3.1.1 Business Intelligence Categories

Business intelligence usage can be categorized into the following categories:

- **CWS-NS Operations Reporting –** The most common form of business intelligence is business operations reporting. This type of business intelligence often manifests itself in the standard weekly or monthly reports that need to be produced.

- **Forecasting –** There will be some need to extrapolate from historical data and try to identify trends and possible future problems.

- **CWS-NS Dashboards –** The primary purpose of a dashboard is to convey the information at a glance where there is little, if any, need for drilling down on the data. At the same time, presentation and ease of use are very important for a dashboard to be useful.

- **Multidimensional Analysis –** Multidimensional analysis is the "slicing and dicing" of the data. It offers good insight into the data at a more granular level. This requires a solid data warehousing / data mart backend and solid analytic and search or “mining” tools.

- **Finding Correlation Among Different Factors –** This is diving very deep into business intelligence. Questions asked are like, "How do different cases correlate to one another?" and "Are there significant trends that can be leveraged/anticipated?"

CWS-NS would envision being able to operate in all 5 of these categories in order for CWS-NS Users to monitor, plan and perform their duties.

3.1.2 Data Warehouse

CWS-NS sees a data warehouse as a subject-oriented, integrated, time-variant and non-volatile collection of data in support of management's decision making process.

- **Subject-Oriented –** A data warehouse can be used to analyze a particular subject area. For example, "adoption" can be a particular subject.

- **Integrated –** A data warehouse integrates data from multiple data sources. For example, Department of Mental Health (DMH) and Department of Justice (DOJ) may have different ways of identifying an address, but in the CWS-NS data warehouse, there will be only a single way of identifying an address.

- **Time-Variant –** Historical data is kept in a data warehouse. For example, one can retrieve data from 3 months, 6 months, 12 months, or even older data from a data warehouse. This means the data warehouse can hold all addresses associated with a case.

- **Non-volatile –** Once data is in the data warehouse, it will not change. So, historical data in a data warehouse should never be altered.

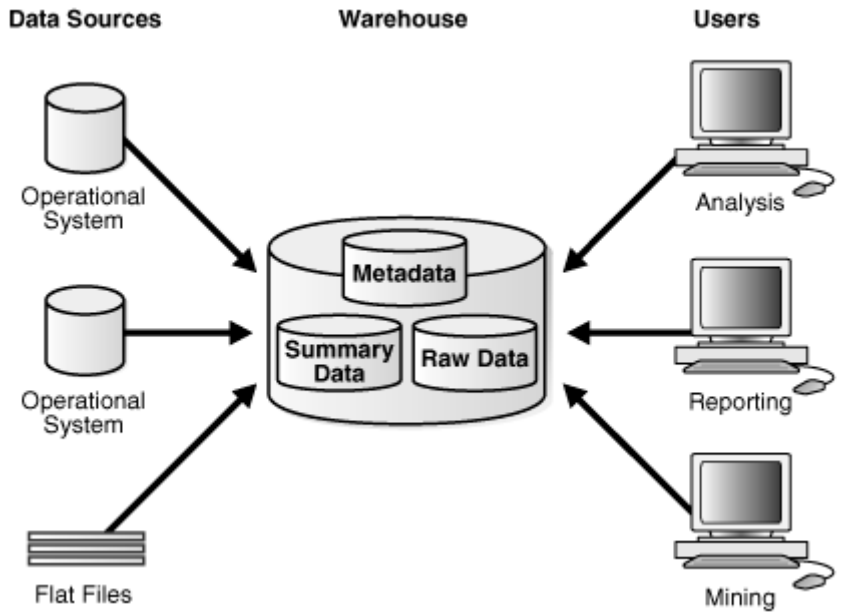

Figure 11 Data Warehouse Interfaces

3.1.2.1 Data Warehouse Architecture

Data warehousing architecture is a conceptualization of how the data warehouse is built. CWS-NS sees the data warehouse architecture consisting of the following interconnected layers:

- **Operational Database Layer –** The source data for the data warehouse. This would be several sources including the CWS-NS operational database, and possibly CHP, DMH, DOJ and other agency information.
- **Data Access Layer –** The interface between the operational and informational access layer — Tools to extract, transform, load data into the warehouse fall into this layer.
- **Metadata Layer –** The data directory — This is should be more detailed than the operational system data directory.
- **Informational Access Layer –** The data accessed for reporting and analyzing and the tools for reporting and analyzing data — Business intelligence tools fall into this layer.

3.1.2.2 Data Warehouse Design

There are 3 main approaches to designing a data warehouse:

Bottom-up Design – In the bottom-up approach data marts are first created to provide reporting and analytical capabilities for specific business processes. The bottom-up process is the result of an initial business oriented Top-down analysis of the relevant business processes to be modeled.

Top-down Design – In the top-down approach, the data warehouse is designed using a normalized enterprise data model. "Atomic" data, that is, data at the lowest level of detail, are stored in the data warehouse. Dimensional data marts containing data needed for specific business processes or specific departments are created from the data warehouse.

Hybrid Design –Both the top-down and bottom-up methodologies have benefits and risks. Hybrid methodologies have evolved to take advantage of the fast turn-around time of bottom-up design and the enterprise-wide data consistency of top-down design.

CWS-NS envisions a Hybrid Design approach taking the best from both the top-down and bottom-up approaches to achieve the best possible results in the data warehouse, and to allow for the best possible flexibility in the ongoing use of the data warehouse.

3.1.2.3 Data Warehouse Project Life Cycle

CWS-NS envisions building the CWS Data Warehouse will be a project within the CWS-NS project itself with its own life cycle. The following are the steps involved in the data warehouse project cycle that CWS-NS would envision:

- Requirement Gathering
- Physical Environment Setup
- Data Modeling
- ETL
- OLAP Cube Design
- Front End Development
- Report Development
- Performance Tuning
- Query Optimization
- Quality Assurance
- Rolling out to Production
- Production Maintenance
- Incremental Enhancements

As a project, CWS-NS would envisions a project plan and vision to revolve around the above steps.

3.1.3 Data Mining of the Data Warehouse

Data mining is the process of extracting patterns from data. Since data mining can only uncover patterns already present in the data, the target dataset must be large enough to contain these patterns while remaining concise enough to be mined in an acceptable timeframe. A data warehouse is used as the repository for the data to be mined.

3.1.3.1 Data Mining Major Elements

Data mining consists of five major elements:

- Extract, transform, and load (ETL) transaction data onto the data warehouse system.
- Store and manage the data in a multidimensional database system.
- Provide data access to business analysts and information technology professionals.
- Analyze the data by application software.
- Present the data in a useful format, such as a graph or table.

Data mining for CWS-NS should provide the above elements in a clear and sustainable manner which will allow for on-going operations of the data warehouse for CWS-NS.

3.1.3.2 Data Mining Analysis Levels

In order to fully utilize the contents of the data warehouse, different levels of analysis must be available to CWS-NS:

- **Artificial Neural Networks -** Non-linear predictive models that learn through training and resemble biological neural networks in structure.
- **Decision Trees -** Tree-shaped structures that represent sets of decisions. These decisions generate rules for the classification of a dataset. Specific decision tree methods include Classification and Regression Trees (CART) and Chi Square Automatic Interaction Detection (CHAID).
- **Rule induction –** The extraction of useful if-then rules from data based on statistical significance.
- **Data visualization –** The visual interpretation of complex relationships in multidimensional data. Graphics tools are used to illustrate data relationships.

3.1.4 Summary

There are many benefits of a data warehouse, data mining capability for CWS-NS, including:

- A data warehouse provides a common data model for all data of interest regardless of the data's source. This makes it easier to report and analyze information than it would be if multiple data models were used to retrieve information.
- Data inconsistencies are identified and resolved prior to loading data into the data warehouse. This greatly simplifies reporting and analysis.
- Information in the data warehouse is under the control of data warehouse users so that, even if the source system data are purged over time, the information in the warehouse can be stored safely for extended periods of time.
- Because it is separate from operational system, the data warehouses will provide retrieval of data without slowing down operational systems.
- The data warehouse can work in conjunction with and enhance the value of operational business applications.

For these reasons, CWS-NS envisions a robust Business Intelligence capability for the CWS-NS user community.

3.2 System Archiving

System or data archiving is the process of moving data that is no longer actively used to a separate data storage device for long-term retention. CWS-NS has a number of business requirements which demand the accessibility of “old” or archived data. All data must be kept indefinitely in a retrievable state (no deletions of data will be done). The business analysis of CWS-NS archiving needs will determine which data is kept and for how long.

3.2.1 Data Archives

CWS-NS Data archives should consist of older data that is still important and necessary for future reference, as well as data that must be retained for regulatory compliance. These data archives must be indexed and have search capabilities so that files and parts of files can be easily located and retrieved.

Data archives are often confused with data backups, which are copies of data. Data backups are used to restore data in case it is corrupted or destroyed. In contrast, data archives protect older information that is not needed for everyday operations but may occasionally need to be accessed. CWS-NS has a need for both, but is particularly sensitive to the need for accessible archived data.

3.2.2 Archiving Best Practices

CWS-NS envisions archiving as part of the information management plan for CWS-NS with a fully realized life cycle for the archived information. Towards that end, there are several points which make up a set of best practices for managing and archiving data, including:

- Set a data retention policy that is tailored to each type of data based on business rules that can be defined by the data administrators for CWS-NS.
- Integrate data retention policies for each type of data into one archiving system
- Enforce data retention based on a published central retention document
- Store data in classes appropriate to the age of data and its access requirements
- Identify inactive business transactions in the database
- Separate data into transaction categories, each with their own predefined archiving constraints
- Relocate inactive data to the archive
- Retain application transparency for users regardless of where the data resides
- Document the archiving methodology and publish as a guideline to what will and will not be archived.
- Run the archive database as a separate instance within one database system, if possible, to reduce costs.

3.2.3 Summary

CWS-NS envisions that all CDSS policy decisions regarding record retention will be followed as well as any State of CA or Federal policy decisions or regulations regarding record retention.

Considering information archiving at all stages of the information management life cycle must be emphasized as an importance best practice for the CWS-NS project. This includes all phases of the information management life cycle: creation, acquisition, cataloging/identification, storage, preservation and access.

4 Infrastructure

Infrastructure covers several subjects within the CWS-NS project including development, testing, acceptance and production environments, methodologies for using those environments, and the network setup and management along with how certain processes are used to support the environments such as access, sign-on and authentication structures (not to be confused with policies which are covered in other sections).

4.1 Environments

In hosted software development project such as CWS-NS, an environment refers to a server tier designated to a specific stage in a release process.

Development, staging, and production is commonly referred to as a high level standard arrangement of tiers. A more comprehensive list of tiers would include:

- **Local –** Developer's desktop/workstation
- **Virtual Machine –** VM hosted on developers desktop or possibly development server
- **Development –** Development server aka a sandbox
- **Integration –** SI build target, or for developer testing of side effects
- **Test/QA –** For functional, performance testing, Quality Assurance etc.
- **UAT –** User acceptance testing
- **Stage/Pre-production –** Mirror of production environment
- **Training –** Mirror of production environment
- **Production/Live –** Serves end-users/clients

There are many names and possibly more tiers that could be included in a test plan, but these would be the minimum envisioned by CWS-NS. Each tier should have its own environment with its own structure and rules for management, getting tighter as the application moves up from the local environment to production. Any given tier might need to have more than one environment to fulfill its defined goals in the software development life cycle.

A List of development to production (testing) environments would include:

DEV, Development Environment
DTE, Development Testing Environment
QA, Quality Assurance (Testing Environment)
DIT, Development Integration Testing
DST, Development System Testing
SIT, System Integration Testing
UAT, User Acceptance Testing
OAT, Operations Acceptance Testing
PROD, Production Environment
TRAIN, Mirror of Production for end user training purposes

A comprehensive development and test plan as part of the CWS-NS project would define the software life cycle and the environments needed to support the plans. CWS-NS has some expectations in regards to certain of those testing stages and environments.

4.1.1 The Development Environment

The basic development environment for CWS-NS should include an integrated development environment for the language / framework chosen for CWS-NS. An integrated development

environment (IDE) is a software application that provides comprehensive facilities to computer programmers for software development. An IDE normally consists of:

- A source code editor
- A compiler and/or an interpreter
- Build automation tools
- A debugger
- A version control system such as CVS or SVN or similar.
- An auto-documentation tool (Javadocs, PHPdocs, Ndocs as examples)
- A unit testing framework tool allowing “red light / green light” unit testing of each process (Junit, PHPunit, Nunit as examples).

Some IDEs also have a class browser, an object inspector, and a class hierarchy diagram, for use with object-oriented software development. These are a plus but not a required feature of any IDE. All of the output from an IDE will and must carry forward throughout the CWS-NS software life cycle as part of keeping the application secure and stable.

4.1.1.1 Unit Test

The goal of unit testing is to isolate each part of the program and show that the individual parts are correct. A unit test provides a strict, written contract that the piece of code must satisfy. As a result, it affords several benefits including that Unit tests find problems early in the development cycle instead of later.

A unit testing framework is envisioned by CWS-NS because even though Unit testing is commonly automated, but may still be performed manually. While the IEEE does not favor one over the other, if not planned carefully, a careless manual unit test case may execute as an integration test case that involves many software components, which will preclude the achievement of most if not all of the goals established for unit testing.

Under the automated approach, to fully realize the effect of isolation, the unit or code body subjected to the unit test is executed within a framework outside of its natural environment, outside of the product or calling context for which it was originally created. Testing in an isolated manner has the benefit of revealing unnecessary dependencies between the code being tested and other units or data spaces in the product. These dependencies can then be eliminated.

By using an automation framework:

- The developer codes criteria into the test to verify the correctness of the unit.
- During execution of the test cases, the framework logs those that fail any criterion.
- Many frameworks will also automatically flag and report in a summary these failed test cases.
- Depending upon the severity of a failure, the framework may halt subsequent testing, allowing for quick identification and correction of any problem.

In creating a continuous unit testing environments for CWS-NS and through the inherent practice of sustained maintenance, unit tests will continue to accurately reflect the intended use of the executable and code in the face of any change. Using established development practices and unit test coverage, up-to-the-second accuracy can be maintained.

4.1.1.2 Version Control

Version control is the task of tracking and controlling changes in the software including revision control and the establishment of baselines. Just as important, version control software such as CVS or SVN allows multiple simultaneous development efforts to go on and keeps those efforts under control using a tree, trunk and branch approach to segregating active version. They allow for control of the documents (whether they are code, design, charts or plans) and access or update by many people without complex ownership schemes. This will be critical to the development and maintenance of the CWS-NS Application.

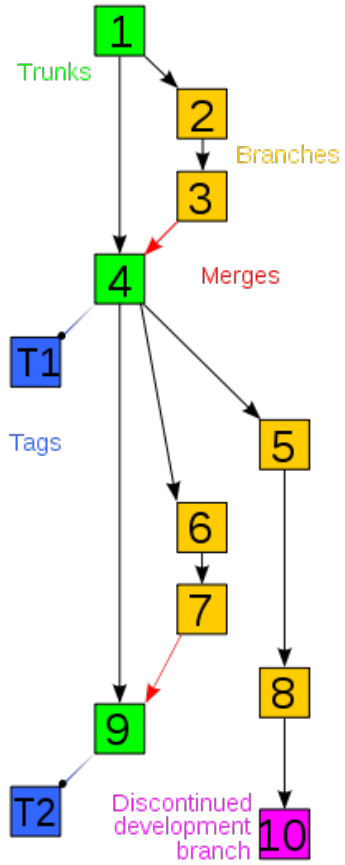

Figure 12 Version Control Tree

Systems to automate some or all of the revision control process should be part of the CWS-NS development environment.

Version control may also track changes to:

- Configuration files, parameter files, initialization files. This gives system administrators another way to easily track changes made and a way to roll back to earlier versions should the need arise.
- Documentation, giving the project and its administrators a single source for information about the application.
- Design documents, which will grow and change as the application is built out.
- Any other information or documents that the project needs to track as part of the software development life cycle.

4.1.1.3 Documentation

CWS-NS envisions that some form of auto-documentation will be provided from the application development process. Tools can be used to auto-generate the code documents—that is, they extract the comments and software contracts, where available, from the source code and create reference manuals in either text or HTML files. Code documents are often organized into a reference guide style, allowing a programmer to quickly look up an arbitrary function or class.

The idea of auto-generating documentation is attractive to CWS-NS for various reasons. For example, because it is extracted from the source code itself (for example, through comments), the programmer can write it while referring to the code, and use the same tools used to create the source code to make the documentation. This makes it much easier to keep the documentation up-to-date.

4.1.2 User Acceptance Testing Environment

User Acceptance Testing (UAT) is a process to obtain confirmation by a CWS-NS Subject Matter Expert (SME), preferably the owner or client of the object under test, through trial or review, that a system meets mutually agreed-upon requirements. UAT is one of the final stages of a project and occurs before CWS-NS accepts the new system.

Users of the system perform these user acceptance tests, which will be derived from the CWS-NS contract and/or the user requirements specification.

The UAT will act as a final verification of the required business function and proper functioning of the system, emulating real-world usage conditions on behalf of the end users. If the software works as intended and without issues during normal use, one can reasonably infer the same level of stability in production. These tests are not focused on identifying simple problems such as spelling errors and cosmetic problems, nor show stopper defects which testers and developers must have previously identified and fixed during previous testing phases.

The results of these tests must be the confidence of the SMEs as to how the system will perform in production.

To fulfill this, CWS-NS would envision that the UAT environment must be an exact mirror of the production environment including network, interfaces, data available, architecture, and software version. The UAT process will include the ability to “turn over” the UAT approved software directly into the Production environment without any changes.

4.1.3 The Training Environment

CWS-NS would envision that the Training and Knowledge Management environment must be configured the same way as of the production environment including network, data available, architecture, and software version, without modification for the environment and with the following features:

- A specific data set built for training purposes must be available at all times to the training environment. This is a specially compiled set of data that allows the various users, offices, and resources to train personnel to use the CWS-NS application.

- The ability to refresh, alter and remove personally identifiable data in the training dataset to make it relevant to the training to be accomplished.
- The ability to manage the system date and time to emulate different time periods.
- The capability to manage and track the various training databases and versions.
- Limit the administration of the training environment to authorized users.
- The ability to release functionality to the training environment prior to release in the production environment and retain the old version.

5 Interfaces

The CWS-NS Service Solution envisions interfaces with State, Local, Federal and other Interface partner systems for delivering Child Welfare Services. This ensures that the information that already exists in other systems is utilized and minimizes redevelopment, redundant work, duplicate data entry, and development of new search functionalities within the CWS-NS Application.

5.1 Global Interfaces

The CWS-NS External Interfaces – Organizations and Systems diagram shown below provides a roadmap for identifying and developing system interfaces. It furnishes a comprehensive view of CWS-NS Interface partner organizations, systems, and the key information exchanged with the CWS-NS System. These interfaces should consider use of relevant data exchange models (e.g. NIST, NEIM, etc.) when creating and maintaining data definitions and configurations for appropriate information exchanges.

5.2 Interface Implementation Considerations

All CWS-NS interfaces should use some form of message exchange pattern (MEP). The MEP describes the pattern of messages required by a communications protocol to establish or use a communication channel. There are two major message exchange patterns — a request-response pattern, and a one-way pattern. For example, the TCP is a request-response pattern protocol, and the UDP has a one-way pattern. For the CWS-NS Application, it is envisioned that the request-response pattern will be used.

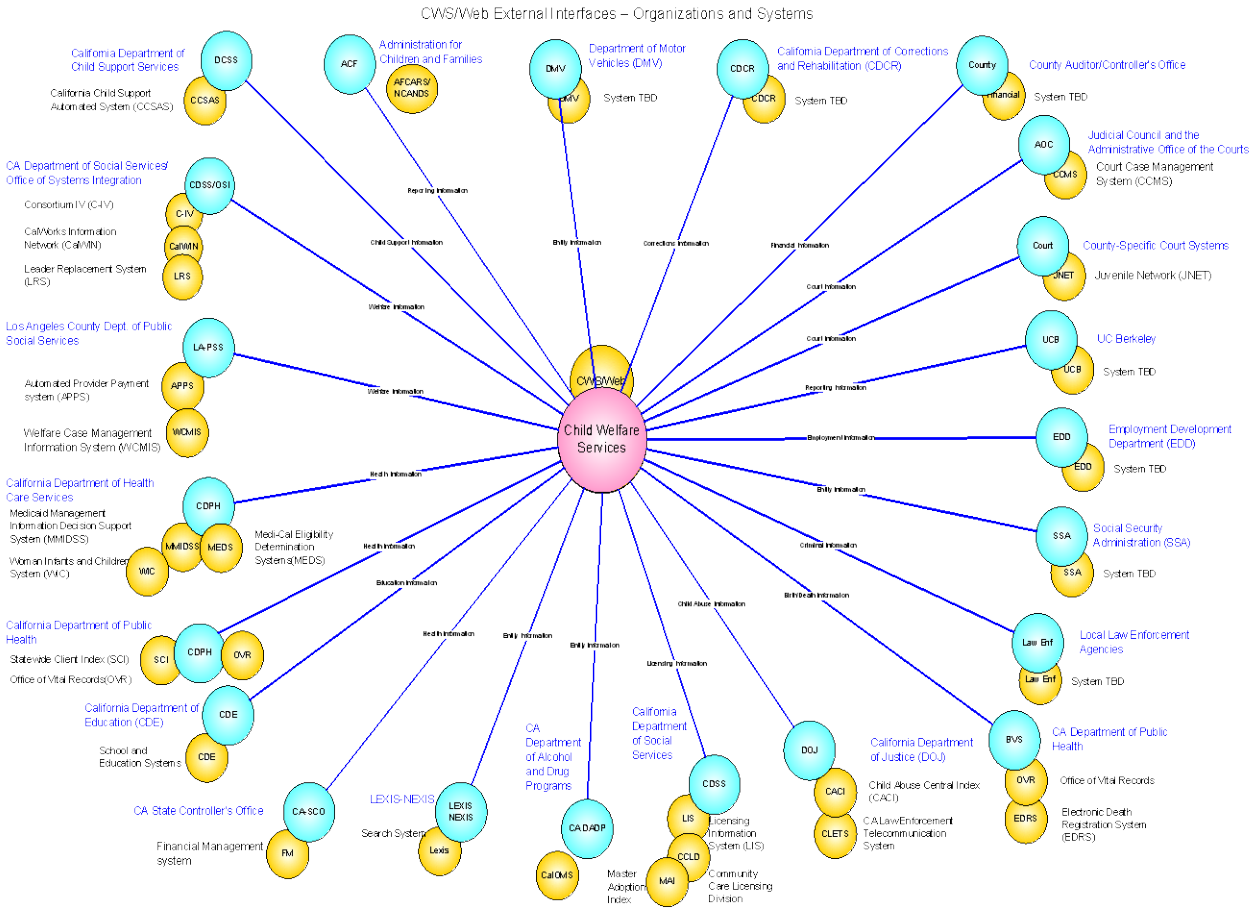

Figure 13 CWS-NS External Interfaces - Organizations and Systems.

5.3 Interfaces as Adaptors

For all interfaces with the CWS-NS application, it is envisioned that a Web Services Adaptor architecture will be used. The Web service adapter has to be developed for each interface to enable them for services access. The Web service adapter may call one single backend application per service request. It is also possible to generate complex Web services where one request leads to multiple requests. The combined results of the backend requests are composed into one response, which is then passed back to the service requestor.

The Web service adapter hides the complexity of calling any external function, and requires only the specification of the subset of parameters absolutely necessary to execute a service.

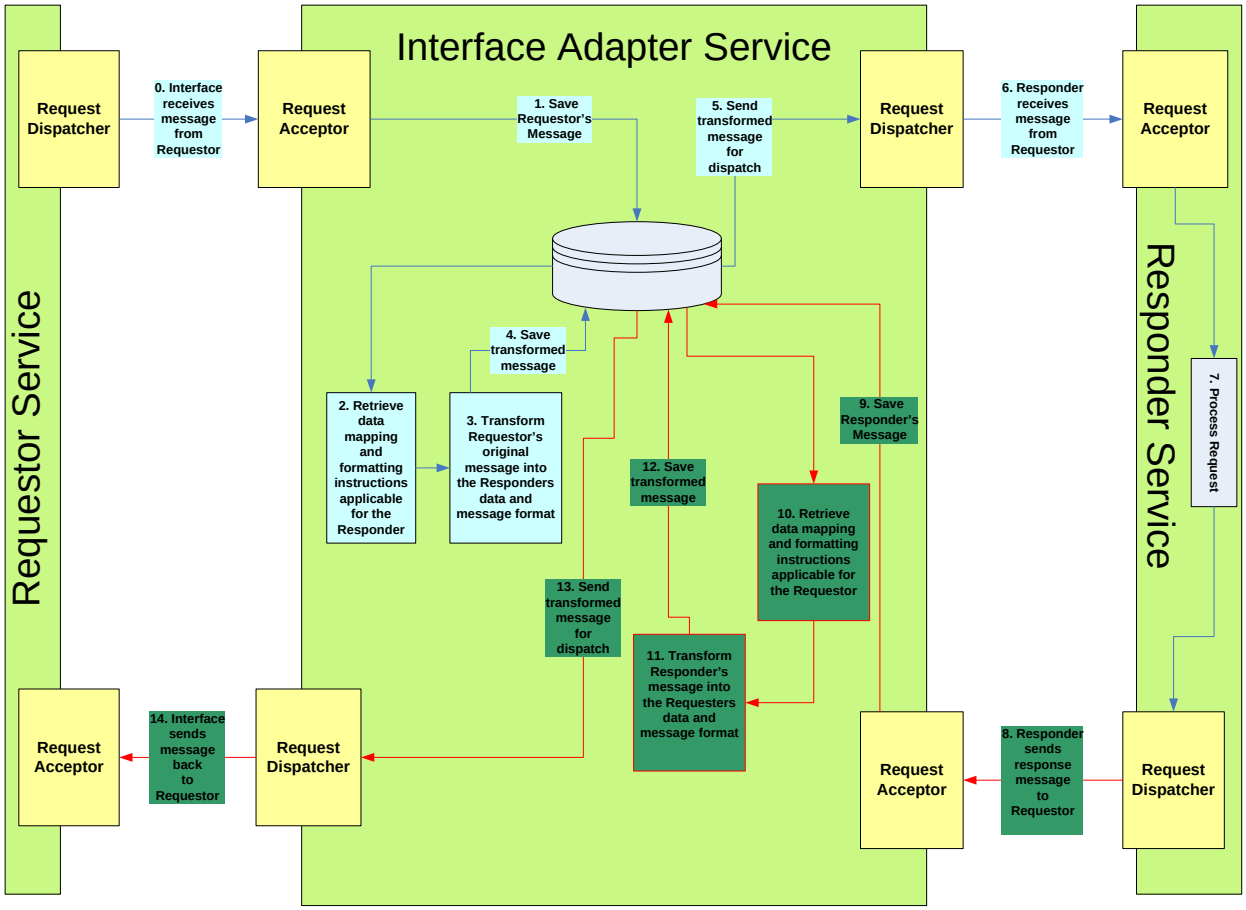

Figure 14 CWS-NS Adapter Architecture Model

All interface service adapters should provide the following capabilities:

- All messages will be housed in a secure archive with retrieval and analysis capabilities.
- Interfaces will not require human intervention.
- Each adaptor will handle all routing, security, error handling and translations for the service and will do so in a way that conforms to CWS-NS, state and federal security requirements.
- The adaptors will use a single-sign-on capability.
- An ability for administrators to access the messages in the archive will be provided.
- An ability for administrators to configure, or change configurations of the CWS-NS interfaces.
- Automated notification and alert functionality will be provided for triggering events based on rules.

More specific information on how CWS-NS services will be built and managed can be found in Section 2.3 in this document.

5.4 Interfaces Using NEIM

The National Information Exchange Model (NIEM) is an XML-based information exchange framework developed by the US federal government. NIEM represents a collaborative partnership of agencies and organizations across all levels of government (federal, state, tribal, and local) and with private industry. The purpose of this partnership is to effectively and efficiently share critical information at key decision points. NIEM is designed to develop, disseminate, and support enterprise-wide information exchange standards and processes that will enable jurisdictions to automate information sharing. The NIEM exchange development methodology results in a common semantic understanding among participating organizations and data formatted in a semantically consistent manner. NIEM will standardize content (actual data exchange standards), provide tools, and managed processes. The State of California and the Federal Government (in the form of ACF) envision NEIM as the de-facto exchange standard for CWS-NS and its partners.

NIEM is designed to facilitate the creation of automated enterprise-wide information exchanges which can be uniformly developed, centrally maintained, quickly identified and discovered, and efficiently reused. The result is more efficient and expansive information sharing between agencies and jurisdictions; more cost-effective development and deployment of information systems; improved operations; better quality decision making as a result of more timely, accurate, and complete information; and, as a consequence, enhanced public safety and homeland security.

The inaugural content for the Family Services Domain—part of NIEM 2.1's release in September 2009—was extracted from extension schema specifying national reference models for six data exchanges between courts and child-support enforcement agencies and between courts and child welfare agencies. The purpose of this domain is to support timely, complete, accurate, and efficient information sharing among the partners that can help improve outcomes for children whose circumstances make them particularly vulnerable.

The National Judicial-Child Support Task Force, sponsored by the Department of Health and Human Services' Administration for Children and Families' Office of Child Support Enforcement (OCSE), developed two IEPDs using NIEM's predecessor, the Global Justice XML Data Model. The task force included representatives from state and tribal CSE agencies and courts, staff from OCSE's regional and central offices, and the National Center for State Courts (NCSC). The Initial Request for Remedy IEPD describes the agency's case-initiation message to the court; the Child Support Order describes the court's findings and judgment concerning the financial responsibilities of a child's noncustodial parent.

The Court/Child Welfare National Exchange Template (NET) Project has developed several IEPDs to describe the exchange of information between a state or local child welfare agency and a court with jurisdiction over child abuse, neglect, and dependency cases. The NET team includes representatives from HHS ACF Children's Bureau's Division of State Systems, two of the Children's Bureau's National Resource Centers (Child Welfare Data and Technology, and Legal and Judicial Issues), representatives from state and local child welfare agencies and courts, and NCSC.

Using NEIM as the standard for exchanging information between CWS-NS and other agencies will facilitate the long term goal of inter-operability and cost savings envisioned by CWS-NS and its sponsors.

6 Performance Management

Performance management refers to the monitoring and measurement of relevant metrics to assess the performance of CWS-NS resources. To be successful, CWS-NS performance management must provide the following benefits:

- Improved management control,
- Understand the direct business value of each IT project or operation,
- Help audit / comply with legislative requirements,
- Allow reallocation of IT resources to projects of most importance to CWS-NS,
- Outage Prevention / Remediation,
- Alerts as to which components may be failing,
- Isolate failing components,
- Provide details to incident management process to speed repair or remediation process,
- Provide real time and historical data to determine whether or not a Service Level Agreement is being met,
- Provide historical data on component usage and workload to help CWS-NS determine appropriate costs and charges (internal and external),
- Provides historical data on IT component workloads and usage to help information technology planning staff increase or consolidate / reduce resources in the future.

6.1 Availability

Availability refers to the ability of the CWS-NS user community to access the system, whether to submit new work, update or alter existing work, or collect the results of previous work. If a CWS-NS user cannot access the system, it is unavailable.

CWS-NS envisions the ability to maintain high availability to its users including:

- **Scheduled Uptime -** CWS-NS envisions 99.5% uptime during all scheduled uptime and that scheduled downtime will be at a minimum.
- **Recovery –** all data loss will be kept to zero and any system recovery will take no more than 72 hours to accomplish.
- **Maintenance –** all maintenance will be scheduled ahead of time and CWS-NS users notified.

- **Fault-Tolerance –** Fault tolerance will be built into the CWS-NS infrastructure and application including any supporting technologies needed to produce the uptime needed.

CWS-NS envisions that industry best practices will be used on the following processes or functions to avoid unavailability:

- Change control
- Monitoring of the relevant components
- Operations
- Avoidance of network failures
- Avoidance of internal application failures
- Avoidance of external services that fail
- Physical environment
- Network redundancy
- Technical solution of backup
- Process solution of backup
- Infrastructure redundancy
- Storage architecture redundancy

6.2 Capacity

Capacity or Capacity Planning has as a primary goal to ensure that CWS-NS system and infrastructure capacity meets current and future business requirements in a cost-effective manner. ITIL version 3 views capacity planning or capacity management as comprising three sub-processes: business capacity management, service capacity management, and component capacity management.

As the use of CWS-NS changes and functionality evolves, the amount of processing power, memory, through put, etc also changes. It is possible to understand the demands being made at any given point in time, and how those demands will change over time. For example, if there are spikes in processing power at a particular time of the day, capacity planning proposes analyzing what is happening at that time and to make changes to maximize the existing infrastructure, such as tuning the application, or moving a business cycle to a quieter period.

These activities are intended to optimize performance and efficiency, and to plan for and justify additional investments. Capacity management is concerned with:

- Monitoring the performance and throughput or load on a server, server farm, or property

- Performance analysis of measurement data, including analysis of the impact of new releases on capacity
- Performance tuning of activities to ensure the most efficient use of existing infrastructure
- Understanding the demands on the Service and future plans for workload growth (or shrinkage)
- Influences on demand for computing resources
- Capacity planning – developing a plan for the Service

Capacity management is important, both during the requirements and design activities of building a system, and when using performance monitoring as an input for managing capacity of deployed systems.

6.3 Monitoring and Reporting

To ensure that there is proper feedback validating that the system meets the CWS-NS contract specified performance metrics, the CWS-NS system will need a monitoring subsystem. The planning, design, installation, configuration, and control of the monitoring subsystem is specified by an appropriately defined Performance Plan.

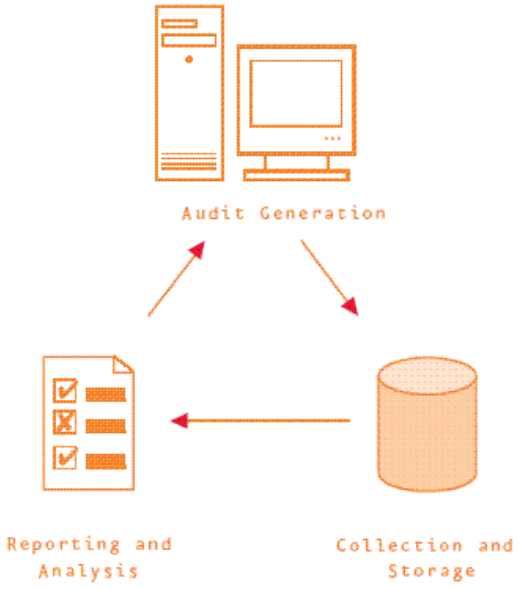

Figure 15 CWS-NS Monitoring and Reporting Model

Monitoring and reporting of performance should provide the following:

- Established service level agreements at the use case level.
- The ability to turn on and turn off monitoring at periodic points or to support problem resolution.

- The generation of regular reports.
- The ability to track trends over time – such as the impact of increasing user loads and growing data sets on use case level performance.

The trend analysis component of this cannot be undervalued. This functionality, properly implemented, will enable predicting when a given application undergoing gradually increasing user loads and growing data sets will exceed the specified non functional performance requirements for a given use case. This permits proper management budgeting, acquisition of, and deployment of the required resources to keep CWS-NS running within the parameters of the non functional performance requirements.

6.4 Service Desk and Services

The service desk for CWS-NS should provide a Single Point of Contact ("SPOC") to meet the communications needs of both Users and IT and to satisfy both CWS-NS User and IT objectives.

The Service Desk differs from a Call center, Contact center or a Help desk by offering a broader more user-centric approach, which seeks to provide a user with an informed single point of contact for all of their CWS-NS requirements. A Service Desk seeks to facilitate the integration of business processes into the Service Management infrastructure. In addition to actively monitoring and owning Incidents and user questions, and providing the communications channel for other Service Management disciplines with the user community, a Service Desk also provides an interface for other activities such as customer Change requests, third parties (e.g. maintenance contracts), and software licensing.

6.4.1 Services

Various support services are provided by the service desk and must meet certain service levels including:

- Rapid turnaround of all application maintenance, enhancements and upgrades.
- Multiple levels of support for triage purposes.
- Tracking, managing and reporting of the level of service provided by the service desk.
- Response objectives for each type or level of service.

6.4.2 Service Desk Types

The Service Desk types are based on the skill level and resolution rates for service calls. The different service desk types include:

- Call center

- Contact center
- Help desk

The Service Desk handles incidents and service requests, as well as providing an interface to users for other IT activities such as:

- Incident Management
- Problem Management
- Configuration Management
- Change Management
- Release Management
- Service Level Management
- Availability Management
- Capacity Management
- Financial Management
- IT Service Continuity Management
- Security Management

6.4.3 The ITIL Approach

The ITIL approach considers the Service Desk to be the central point of contact between service providers and users/customers on a day-to-day basis. It is also a focal point for reporting Incidents (disruptions or potential disruptions in service availability or quality) and for users making Service Requests (routine requests for services). CWS-NS should have such and approach to the service desk.

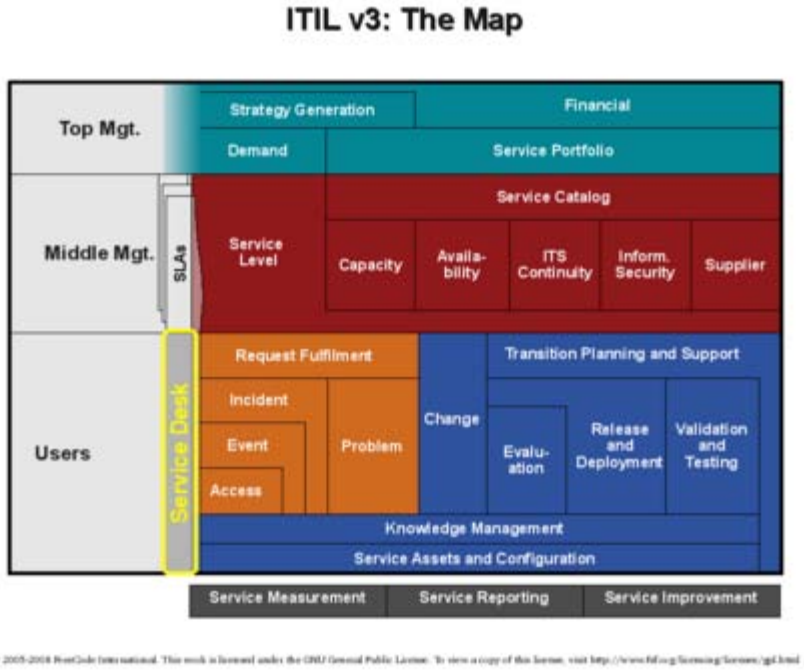

Figure 16 CWS-NS - ITIL model

7 System Security

As CWS-NS moves to an online, shared services environment it is imperative that it implement a security system that ensures only authorized users get access to services that contain sensitive information. For the state of California, this includes SOA security and a federated identity management system. Federated identity has emerged as the rarest of things - a scalable, security solution that does not detract from usability. Establishing federation between policy decision points within the service requester and service provider enables the request to carry the highest degree of security.

Many existing standards (OASIS, NIST, OCIO-CA, etc) were used as source documents for this vision of CWS-NS security and are listed in Appendix C in this document.

SOA allows different ways to develop applications by combining services. The main premise of SOA is to erase application boundaries and technology differences. As the CWS-NS application is opened up, how we can combine these services securely becomes an issue. Traditionally, security models have been hardcoded into applications and when capabilities of an application are opened up for use by other applications, the security models built into each application may not be good enough.

Several emerging technologies and standards address different aspects of the problem of security in SOA. Standards that focus on the security and identity management aspects of SOA implementations that use Web Services are:

- WS-Security,
- SAML,
- WS-Trust,
- WS-SecureConversation,
- WS-SecurityPolicy.

Technologies addressing the problem of SOA security in the larger context are:

- Virtual Organization in Grid Computing,
- Application-oriented networking (AON),
- XML Gateways are.

XML Gateways are hardware or software based solutions for enforcing identity and security for SOAP, XML, and REST based web services, usually at the network perimeter. An XML gateway is a dedicated application which allows for a more centralized approach to security and identity enforcement, similar to how a protocol firewall is deployed at the perimeter of a network for centralized access control at the connection and port level.

XML Gateway SOA Security features include:

- PKI,
- Digital Signature,
- Encryption,
- XML Schema Validation,
- Antivirus,
- Pattern Recognition.

Regulatory certification for XML gateway security features are provided by FIPS and DoD.

7.1.1 Federal Guide to Web Services Security

The Federal government has released the Federal Guide to Web Services Security (NIST 800-95). This is a detailed document that explains the many parts of federated identity management. The CWS-NS identity management model should be compliant with this Federal guide. Included is this chart that shows the major standards grouped by function.

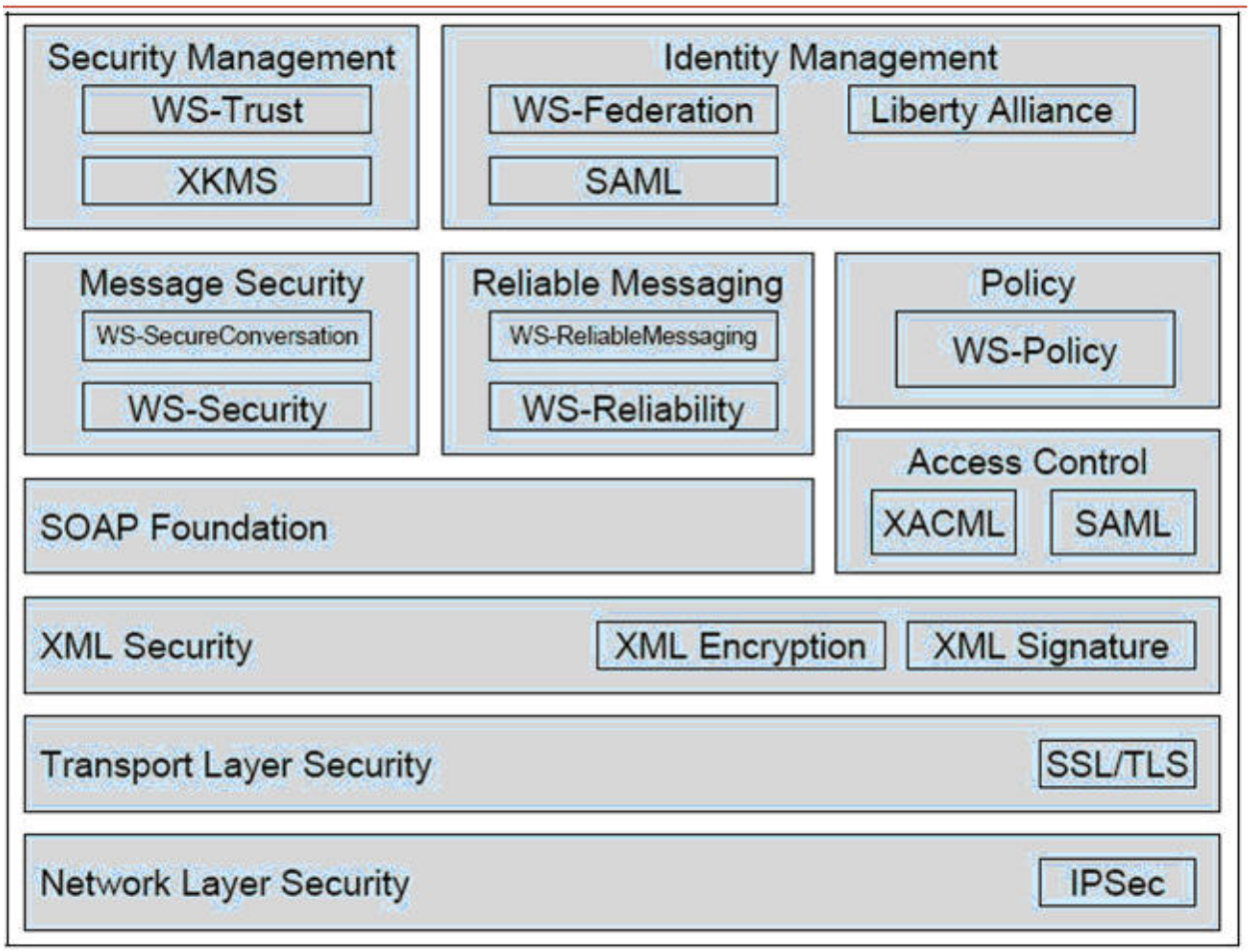

Figure 17 Security Standards Model

There are three main security elements to the Federal model:

- XML Encryption (W3C standard) is used to achieve Web service message confidentiality. This standard can be implemented using either SAML or X.509 certificates.
- XML Signature (W3C standard) is used to achieve Web service message integrity. This ensures that the message came from where you think it came from and was not hijacked (or altered) along the way. Again, either SAML or X.509 certificates can be used.
- WS-Security, WS-Federation, SAML, WS-Trust, and WS-Policy (all OASIS standards) are the primary standards for managing authentication. Web Services Security (WS-Security) ensures end-to-end security instead of point-to-point (like SSL).

CWS-NS envisions that these elements will be included in the CWS-NS Identity Management functions.

7.1.2 CWS-NS Identity Management Key Points

There are several key factors or points that must be met to achieve the type of identity management that CWS-NS envisions. Such an Identity Management system must:

- Be consistent with Federal standards and guidelines.
- Be designed to accommodate all stakeholders (as identified in the RFP).
- Support information sharing both public and private.
- Be subject to data sharing policies.
- Manage users in a consistent way with authentication at the level specified by the services they are accessing.
- Have extensive auditing capability of both user access details as well as the data they accessed.
- Have interoperability standards that are defined; in most cases, communications will be via SOAP (v1.2+) messaging, data will be formatted in XML, and services will have Web service interfaces.
- Allow for a SOA environment that is designed to handle online interactions via voice or Web channels using the same services and interoperability processes.
- Have SAML as the preferred mechanism for formatting identity information. Stakeholders may use either WS*, SAML, or CardSpace to share the identity information (subject to sharing policies).

7.2 Authentication and Authorization

Authentication is the process of establishing who a person is. Authorization is the process of determining a set of permissions that will be granted to a specific trusted identity. Authorization follows authentication. Once an identity is known, the CWS-NS system can determine what is appropriate for any user to be able to see or do.

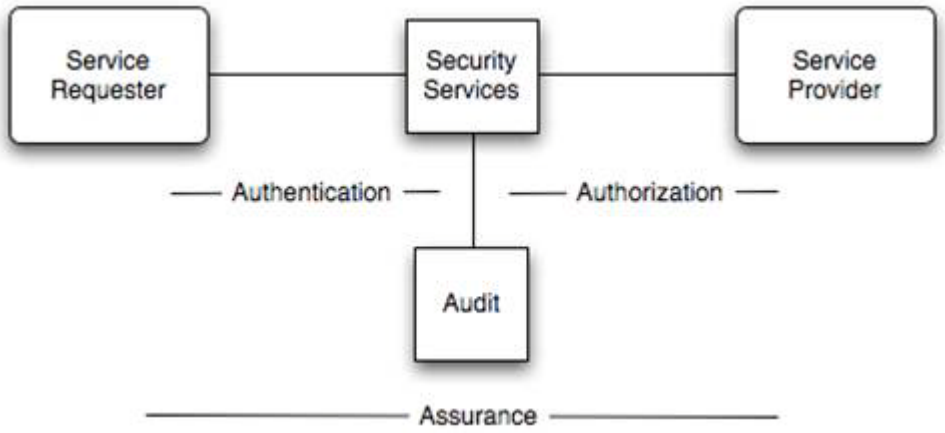

Figure 18 CWS-NS Authorization Model

7.2.1 CWS-NS Authentication

There are a number of methods for providing authentication. The most common process is a two way matching process between a public identifier (i.e. a user name or userid) and a private identifier (i.e. a password). For CWS-NS, the userid/password combination is the most practical to avoid the pitfalls of managing physical devices (such as a device that would maintain a certificate or a key to identify a user). The whole goal of the authorization process is to enable any person to come to CWS-NS and establish a set of credentials which could be used to identify themselves - without waiting for the access or sign on to be mailed to them. This method is also hardware independent and portable - with a userid/password, CWS-NS can be access regardless of the machine being used or carrying a device with the certificate.

The purpose of authentication is to establish a trust relationship between a provider of services and a consumer of services. Since CWS-NS may never physically meet the user, some mechanism is needed to certify that the person on the other end of the internet is who they claim to be. Without that trust, it is very difficult to enable access to restricted resources, information or processes.

The requirements for establishing an authenticated identity are standard and straight forward. It is possible to define a process for creating "an online account". In doing so, no special data is needed to establish the right to access any specific functionality. This creates enough uniformity that it should be easy (but not simple) to extract the user credentials into a central repository, specifically for CWS-NS.

Authentication also comes with a specific set of processes that should be universally available to CWS-NS users:

- Requesting an ID
- Validating an associated e-mail address
- Creating a password
- Applying a policy for passwords
- Forgot User ID
- Forgot Password
- Resetting passwords
- Changing passwords (depending on policy)

7.2.1.1 Authentication Levels

The Federal Electronic Authentication Guide (NIST 800-63) defines four levels of authentication as well as a risk assessment guide for mapping services to the appropriate authentication level:

- **Level One – Basic**. User ID and Password via a simple password challenge-response protocol is the normal implementation at level one.

- **Level Two – Single Factor**. Shared secrets (PIN, mother's maiden name, driver license number, etc.) are used to further verify a user's identity. Authentication is conducted by an Identity Service Provider via a secure authentication protocol, as defined in WS-Security (such as SAML), and a security credential ("token") are required.
- **Level Three – Multi-factor**. Authentication (via an Identity Service Provider) requires that the claimant prove through a secure authentication protocol that he or she controls the token (usually by a digital signature), and must first unlock the token with a password or biometric, or must also use a password in a secure authentication protocol to establish two factor authentication. Tokens must be one of three types: "soft " cryptographic, "hard" cryptographic, or one-time password devices.
- **Level Four – Only "hard" (physical hardware) cryptographic tokens are allowed**. These are often "smart cards" that contain biometric information.

CWS-NS envisions a data classification process will be done where an initial security level will be set. The security level will be verified by a final risk assessment performed by the State.

7.2.2 Authorization

Authorization is the process of determining a set of permissions that will be granted to a specific trusted identity.

- Granting permissions may happen automatically once authentication is established.
- In the case of CWS-NS, an authenticated user may first need to establish a valid business reason for obtaining specific permissions.
- Additional data may be required to determine the basis of the permissions - things like the existence of a contract, connection to a specific case or process, or an involvement with a case or client of the CWS-NS application.

As CWS-NS envisions the use of SAML as a standard in the authorization process, this can then build upon authentication standards such as XACML (a policy language that can use SAML assertions). In XACML, a policy enforcement point (PEP) intercepts a service request, gathers all relevant information and credentials about the request, and then passes them to a policy decision point (PDP) to render a decision on granting access. The basis of the decision is a three part rule where the resource that is attempting to be accessed is mapped to a condition and an action for a subject. This works very well with what CWS-NS envisions that most if not all decision points should be changeable and extensible as part of a rules based system.

When a CWS-NS resource like a web page is mapped to a condition for access based on the action (like "read only") the access is granted or denied to the subject (like a user or group). XACML enables this authorization logic to be widely reused in CWS-NS such as anywhere security policy logic is touched (directory, operating systems, databases, firewalls, routers, and so on).

Before granting or denying access, the data must always be validated. CWS-NS services will be loosely coupled, which is great for interoperability and scalability but also great for attackers to inject nefarious information that targets the host, data and other resources. CWS-NS security should provide cover against the SANS 25 top errors, and a whole array of other attacks as part of the authorization process.

7.3 Identity Management

Identity management (IdM) is an area that deals with identifying individuals in a system and controlling access to the resources in that system by placing restrictions on the established identities of the individuals. This will involve the following processes as part of CWS-NS:

- Management of identities
    - Provisioning/De-provisioning of accounts
    - Workflow automation
    - Delegated administration
    - Password management
    - Self-service password reset
- Access Management
    - Policy-based access control
    - Enterprise/Legacy single sign-on (SSO)
    - Web single sign-on (SeoS)
    - Reduced sign-on
    - Role-based access control (RBAC)
- Directory services
    - Identity repository (directory services for the administration of user account attributes)
    - Metadata replication/Synchronization
    - Directory virtualization (Virtual directory)

7.3.1 Management of Identities

The CWS-NS application will manage identity data about two broad kinds of users:

- **Internal**: including state and county employees and suppliers. These people will spend most of their working hours engaged with CWS-NS. They often access multiple internal functions and their identity profiles are relatively complex.
- **External**: including the reporting public, mandated reporters and other partners and suppliers. There may be more outsiders than insiders. Outsiders generally access only a few restricted systems (e.g. mandated reporting) and access these systems infrequently. Identity profiles about outsiders tend to be less detailed and less accurate than about insiders.

In CWS-NS, the managing identities process will do the following:

- Establishes an identity:
    - Links a name (or number) with the subject.
    - Re-establishes the identity (i.e. links a new or additional name, or number, with the subject).
- Describes the identity:
    - Optionally assigns one or more attributes applicable to the particular subject to the identity.
    - Re-describes the identity (i.e. changes one or more attributes applicable to the particular subject).
- Follows identity activity:
    - Record and/or provide access to logs of identity activity
    - Optionally auto-analyze behavior patterns of the identity
- Destroys the identity.

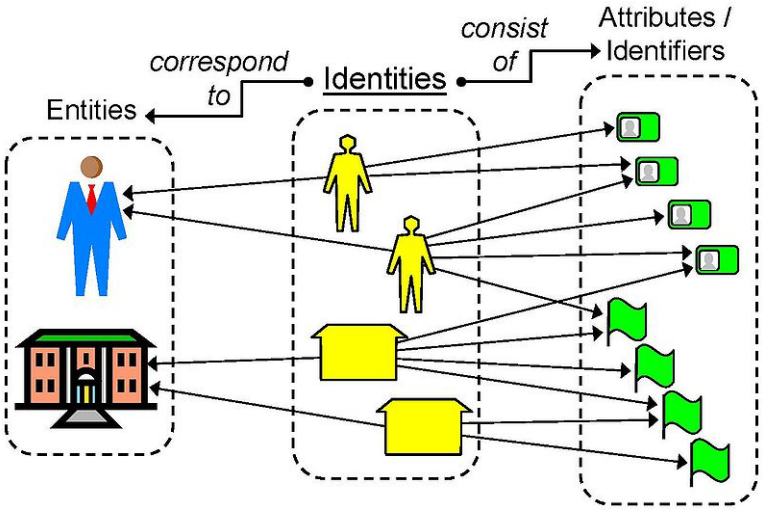

Figure 19 CWS-NS Identity Management Model

7.3.2 Access Management

Access management refers to the process of controlling and granting access to satisfy requests. This process is completed through a sequence of authentication, authorization, and auditing actions. Together, authentication, authorization, and auditing are also commonly known as the gold standards of security.

There are three key technical issues to be handled in the CWS-NS security design for integrating authentication, authorization, and auditing mechanisms into the application architecture:

- Single Sign-On (SSO)
- Trust and Federation
- Auditing

7.3.2.1 Single Sign-On

A CWS-NS user should not have to login multiple times in order to gain access to the various business applications and processes that they use in their jobs. Because of the intractable problems that multiple identities present, the concept of single sign-on (SSO) is envisioned for CWS-NS identity management.

7.3.2.1.1 Web SSO - Web Access Management / Web Single Sign On

For CWS-NS, a Web Access Management (WebAM) / Web Single Signon (WebSSO) system is envisioned as being used to manage authentication and authorization of users accessing the web-enabled application and its processes.

In this context, a WebSSO system intercepts initial contact by the user's web browser to the CWS-NS application and either verifies that the user had already been authenticated or else redirects the user to an authentication page, where the user may use a password, token, PKI certificate or other method to be designed to authenticate himself.

Once a user is authenticated, the WebAM component of CWS-NS controls the user's access to application functions and data. This is done either by filtering what content the user can access (e.g., URL filtering) and by exposing an API that the application can use to make run-time decisions about whether to display certain forms, fields or data elements to the user.

WebSSO / WebAM typically use an LDAP directory as a back-end repository, to identify all users. They must be tightly integrated with the "identity and access management" application, which enables delegated and in some cases self-service administration of the contents of that single directory.

7.3.2.1.2 Federated Sign On

CWS-NS will interface with many other agencies, both inside and outside the state. To do this, CWS-NS envisions the use of a federated sign-on which requires the application authentication infrastructures to understand trust relationships and interoperate through standard protocols. Kerberos and the future Active Directory Federation Service are examples of federation technologies. Federated sign-on means that the authentication responsibility is delegated to a trusted party, in this case CWS-NS application itself. Application users need not be prompted to sign-on again as long as the user has been authenticated by a federated (i.e. trusted) authentication infrastructure component.

7.3.2.2 Trust and Federation

As mentioned in the single sign-on section, federation offers a form of single sign-on solution and is envisioned as part of the CWS-NS application. However, federation is more than just single sign-on. Federation implies delegation of responsibilities honored through trust relationships between federated parties. There are three technology elements that are crucial to the concept of federation:

- A federation protocol that enables parties to communicate.
- A flexible trust infrastructure that supports a variety of trust models.
- An extensible policy management framework that supports differing governance requirements.

A basic policy management framework must allow policies to be created, deleted, modified and discovered. In order to promote federated systems that enable new business connections and partnerships to be quickly integrated, the policy management framework must also be extensible to reflect the dynamicity of the environment it aims to support. Some examples of application policies that are relevant to federation are:

- Trusted issuer of identity-related capabilities.
- The types of capabilities required to invoke an application's operation.
- The kinds of identity information that the application expects in capabilities.
- The kinds of privileges that an identity must demonstrate in order to invoke a service.

All of these are envisioned as being dealt with as part of a federated CWS-NS security solution and must follow California OCIO guidelines so that the CWS-NS solution works within the context of the identity management of the state.

7.3.2.3 Auditing

Auditing in this context, is about keeping records of 'who did what, when' within the CWS-NS infrastructure. Federal and state regulations are key drivers of the identity-related auditing requirements. This topic will be discussed in more depth in section 7.6.

7.4 Mobility

Secure mobility is a must for CWS-NS. All the security that is implemented for CWS-NS is envisioned as also being present for the mobile solutions, with some additions:

- The device must store data securely in the event any mobile device is lost or stolen. Anyone finding such a device must not be able to access CWS-NS data.

- Administrators must have a method to setup and manage profiles for mobile users which will allow for the pre-authentication of mobile devices.

- All mobile devices will connect to CWS-NS using a secure VPN.

7.5 Secure Connectivity

CWS-NS must operate with secure connections at all times. To ensure this, CWS-NS envisions the following will be implemented:

- SSL –with a minimum of 256 bit encryption or higher if available.
- Secure channels will be used.
- There will be a configuration facility to allow the configuring of all security levels, controls, settings, environments, etc.
- Communications from the Web servers in the DMZ to the internal application servers will use WS-Security and Kerberos tokens.
- All data will be encrypted whether at rest or in motion.
- CAPTCHAs (Completely Automated Public Turing test to tell Computers and Humans Apart) will be used as part of the authentication process where ever registration is being done, where any sort of attack may occur or where bots will not be allowed.
- Secure standards will be implemented for all VPN activity within CWS-NS.

7.6 System Auditing

A security audit is a systematic measurable technical assessment of a system or application. Manual assessments include interviewing staff, performing security vulnerability scans, reviewing application and operating system access controls, and analyzing physical access to the systems. Automated assessments, include system generated audit reports or using software to monitor and report changes to files and settings on a system. Federal and state regulations are key drivers of the identity-related auditing requirements. The IT audit process typically involves the following phases:

- Audit generation
- Data collection and storage
- Analysis and feedback

It is envisioned that CWS-NS audit trails must be generated each time there is an access of the system by any entity and must log all activity within the system including:

- Logins, attempted logins.
- Accesses, successful or unsuccessful, to any screen, page, report, service or other interface to CWS-NS.
- All data accesses, successful or unsuccessful.
- Any access to any element of CWS-NS.

After the audit data has been produced, it needs to be collected and stored within a central collection and data storage facility.

Once the data is collected, they may be processed and analyzed automatically or manually. The audit analysis must be designed to lead to conclusions on what corrective actions, if any, are needed to improve the CWS-NS systems and processes.

7.6.1 Audit Systems Design Considerations

Given the auditing process described in the previous section, there are several considerations that are important to the design of a CWS-NS auditing system:

- Locality of audit generation and storage.
- Separation of auditor's role.
- Flow of audited events.

Once an audit trail is generated, the audit data must be stored within a secure CWS-NS auditing database.

Role separation is a common best practice to help minimize the occurrence of illegal activities resulting from actions that might circumvent accountability checks. For example, supervisory social workers should be able to approve case resolution requests. In the CWS-NS audit process, the system administrator role must be removed from the auditor's role. Doing so prevents the system administrator who usually has control on computers to cover up audit trails of unauthorized activities.

In addition, the CWS-NS identity auditing infrastructures are also envisioned to be:

- Efficient (means a message-based asynchronous communication channel).
- Available (means distributed, clustered and fault tolerant).
- Accurate (keeps accurate records and traces).
- Non-repudiated (can be admitted into the courts of law as evidence, typically means the records need to be digitally signed).

7.7 Vulnerability Management

Vulnerability Management is the routine practice of identifying, classifying, remediating, and mitigating vulnerabilities in a computer system. CWS-NS envisions capabilities within the CWS-NS system that will allow vulnerabilities within the system to be dealt with.

The four main categories of Vulnerability Management are:

- Vulnerability assessment
- Security configuration management and policy compliance
- IT security risk management

7.7.1 Vulnerability Assessment

Vulnerability assessment provides baseline and discovery in support of vulnerability management and must attempt to determine vulnerable conditions based on known vulnerabilities. Vulnerability assessment provides for:

- Determining open ports.
- Determining running services and protocols,
- Documents running applications, and operating system processes.
- Determining the weakness of the network and host infrastructure.

The ability to determine the state of vulnerability within the CWS-NS infrastructure at any given time is envisioned as being available at all times. Both manual views and automated assessments must be available at all times to prevent any potential attack and limit the impact of a security incident.

7.7.1.1 Security Configuration Management and Policy Compliance

Security configuration management and policy compliance tools are envisioned for CWS-NS to manage the configurations of the various infrastructure components.

7.7.1.2 IT Security Risk Management

CWS-NS envisions a way to manage the risks that must necessarily be allowed when giving access to the broad range of users that CWS-NS must support. The primary focus of CWS-NS security risk management is to quantify CWS-NS security risk and prioritize/support remediation activities. To support aggregated risk analysis and vulnerability mitigation for CWS-NS, risk management must combine:

- Asset classification data,
- Embedded security policy functions,
- Current external threat data,
- The results of third-party VA scans.

For CWS-NS, there should be security risk management tools to provide embedded support for asset classification and security configuration policy management. The analysis produced by these tools should quantify the IT security risk for groups that are aligned to the

various CWS-NS functions. The products must also provide workflow for mitigation, as well as validation that vulnerability has been eliminated.

7.7.1.3 Security Information and Event Management (SEIM)

The monitoring step of the CWS-NS vulnerability management process should be automated by vulnerability assessment and security configuration management technologies and through the use of SIEM technology. SIEM technology would provide to CWS-NS real-time event management and historical analysis of security data from a wide set of sources. This technology is used to filter incident information into data that can be acted on for the purposes of incident response and forensic analysis.

7.8 Service Oriented Architecture (SOA) Security Checklist

The following is a partial security checklist for what the security environment for CWS-NS production environment should contain:

Area	Control
Deployment and administrative	• Debugging and tracing status on production system—Off
	• Web services should be running with least privileged mode if possible
	• Protocol hardening—supporting only allowed protocol
WSDL hardening	• No unnecessary services or method exposed to external world
	• Auto generation of WSDL can be disabled if needed
	• WSDL file can be in protected area with authentication
Exception handling	• Exception management for Web services routines
	• No information leakage from <fault> element
	• Logging exception details for tracking breach
	• Application-level SOAP handling with exception
“In transit” management	• SSL for end-to-end connection
	• Digitally signed message if going through multiple nodes
Validating inputs	• XML input checking with schema

	• Input filtering before consuming untrusted variable
	• Input check on range, size, length, etc.
Authentication and authorization	• SSL and Basic authentication
	• WS-Security authentication mechanism in SOAP header
	• Application-level authentication and ACLs
	• Authorization design and ACLs
	• Methods-based authorization with respect to WSDL

Appendix A. Detailed information for Offline Processing

a. Local storage and sync

Offline web applications have two major components:

- **Local storage**. Storage should be enabled on a per-user basis, accepting the restricted rights and access on the local machine.
- **Synchronization with the data cloud**. In the past, synchronization was a tricky problem full of mid-air collisions and conflict resolution. By making a few smart decisions can mitigate this instead of overwhelming the user. A local web proxy can handle synchronization and graceful fall over with online web services.

An offline user sees the exact same user interface and functionality of the web application while offline, yet the browser is talking to a small local server instead of the datacenter. The proxy queues up requests for the remote server, polling for connectivity and replaying any actions when the remote server becomes available.

Offline frameworks abstract the differences between browsers and configurations in much the same way as an AJAX toolkit must handle asynchronous request methods.

b. Performance Increases

Placing frequently accessed data on a user's local machine leads to new performance gains and application capabilities.

- Just as a network proxy might cache frequently accessed web pages for fast access, the local web application proxy already has the most used data available on the local machine.
- The local server can make batched server requests, submitting 10 actions at a time and persisting its connection until synchronization is complete.
- The local server can also handle “check in” and “check out” requests where the data is marked on the master data container as “view only” until such time as the user connects back with the network and a “check in” request is made. Many shared data management system work in this manner including CVS, and SVN that developers are familiar with.

Taken to the fullest extent, a web application with offline access capabilities could also enjoy faster performance even if they never disconnect from the network.

c. Current Offline Products

There is no need to create a custom offline capability for CWS-NS. There are many existing open source products out there that already have solved the problems and will also work across most of the major browsers. Here's a quick list of options which is certainly not a complete list:

- Adobe Apollo
- Adobe AIR
- Zimbra Desktop (MPL)
- Dojo Offline Toolkit (BSD)
- Firefox 3 Offline
- DjangoKit
- Joyent Slingshot
- Google Gears

Offline access creates an additional layer of reliability, extends the reach of web applications, and improves application performance by moving important data closer to its users.

Appendix B. Detailed information on Presentation Layer Best Practices

a. Minimize HTTP Requests

Because 80% of the end-user response time is spent on the front-end, reducing the number of components in turn reduces the number of HTTP requests required to render the page. This is the key to faster pages.

Here are some guidelines for reducing the number of HTTP requests, while still supporting rich page designs.

- Combined files are a way to reduce the number of HTTP requests by combining all scripts into a single script, and similarly combining all CSS into a single stylesheet. Combining files is more challenging when the scripts and stylesheets vary from page to page, but making this part of the release process improves response times.
- CSS Sprites are the preferred method for reducing the number of image requests. Combine the background images into a single image and use the CSS background-image and background-position properties to display the desired image segment.
- Image maps combine multiple images into a single image. The overall size is about the same, but reducing the number of HTTP requests speeds up the page. Image maps only work if the images are contiguous in the page, such as a navigation bar. Defining the coordinates of image maps can be tedious and error prone. Using image maps for navigation is not accessible too, so it's not recommended.
- Reducing the number of HTTP requests in the page is the place to start. This is the most important guideline for improving performance for first time visitors. Because 40-60% of daily visitors to a site come in with an empty cache. Making the page fast for these first time visitors is key to a better user experience.

b. Use a Content Delivery Network

A content delivery network (CDN) is a collection of web servers distributed across multiple locations to deliver content more efficiently to users. The server selected for delivering content to a specific user is typically based on a measure of network proximity. For example, the server with the fewest network hops or the server with the quickest response time is chosen.

A CDN is necessary to achieve fast response times. Applications that moved static content off their application web servers to a CDN improved end-user response times by 20% or more. Using a CDN is relatively easy and will dramatically improve the speed of the CWS-NS application.

CWS-NS should have dispersed static content. This not only achieves a bigger reduction in response times, but it's easier thanks to content delivery networks.

c. Add an Expires or a Cache-Control Header

There are two aspects to this rule that CWS-NS is looking to implement:

- For static components: implement "Never expire" policy by setting far future Expires header.
- For dynamic components: use an appropriate Cache-Control header to help the browser with conditional requests.
  Use a version number embedded in the component's filename, for example, example_2.0.6.js.
- If the server is Apache, use the ExpiresDefault directive to set an expiration date relative to the current date.

The impact of this performance improvement depends on how often users hit the pages with a primed cache. (A "primed cache" already contains all of the components in the page.) By using a far future Expires header, this increases the number of components that are cached by the browser and re-used on subsequent page views without sending a single byte over the CWS-NS user's Internet connection.

d. Gzip Components

The time it takes to transfer an HTTP request and response across the network can be significantly reduced by decisions made by front-end engineers.

- Gzip Compression can reduce response times by reducing the size of the HTTP response.
- Starting with HTTP/1.1, web clients indicate support for compression with the Accept-Encoding header in the HTTP request. Always use “Accept-Encoding: gzip, deflate”.

Gzipping as many file types as possible is an easy way to reduce page weight and accelerate the CWS-NS user experience.

e. Put Stylesheets At The Top

The W3 HTML specification clearly states that stylesheets are to be included in the HEAD of the page: "Unlike A, [LINK] may only appear in the HEAD section of a document, although it may appear any number of times." The optimal solution is to follow the HTML specification and load all stylesheets in the document HEAD.

- Putting stylesheets in the HEAD allows the page to render progressively.
- The browser should display whatever content it has as soon as possible. This is especially important for pages with a lot of content and for users on slower Internet connections.
- When the browser loads the page progressively the header, the navigation bar, the logo at the top, etc. all serve as visual feedback for the user who is waiting for the page. This improves the overall user experience.

CWS-NS cares about performance and wants pages to load progressively.

f. Put Scripts at the Bottom

All scripts should be placed at the bottom of the HTML file. That will make CWS-NS pages load faster.

- In some situations it's not easy to move scripts to the bottom. If, for example, the script uses document.write to insert part of the page's content, it can't be moved lower in the page.
- There might also be scoping issues. In many cases, there are ways to work around or design around these situations.
- Do not use the DEFER attribute since not all browsers support this attribute. The DEFER attribute indicates that the script does not contain document.write, and is a clue to browsers that they can continue rendering. Unfortunately, Firefox doesn't support the DEFER attribute. In Internet Explorer, the script may be deferred, but not as much as desired.

CWS-NS envisions that all scripts be placed at the bottom of the HTML file.

g. Avoid CSS Expressions

CSS expressions are a powerful (and dangerous) way to set CSS properties dynamically.

- They were supported in Internet Explorer starting with version 5, but were deprecated starting with IE8.
- The expression method is ignored by browsers other than Internet Explorer, so it is useful for setting properties in Internet Explorer needed to create a consistent experience across browsers.

- The problem with expressions is that they are evaluated more frequently than most people expect. Not only are they evaluated when the page is rendered and resized, but also when the page is scrolled and even when the user moves the mouse over the page.

CWS-NS should not be built using CSS expressions as there are alternatives to this method to achieve the same result.

h. Make JavaScript and CSS External

The best practice, and the one preferred by CWS-NS is to deploy the JavaScript and CSS as external files. The only exception where inlining is preferable is with home pages, where the home pages have few (perhaps only one) page view per session. In that case inlining JavaScript and CSS results in faster end-user response times.

If there is a front page that is the first of many page views, there are techniques that leverage the reduction of HTTP requests that inlining provides, as well as the caching benefits achieved through using external files. In that case, inline JavaScript and CSS in the front page, but dynamically download the external files after the page has finished loading. Subsequent pages would reference the external files that should already be in the browser's cache.

i. Reduce DNS Lookups

DNS lookups have a cost. It typically takes 20-120 milliseconds for DNS to lookup the IP address for a given hostname. The browser can't download anything from this hostname until the DNS lookup is completed.

Reducing the number of unique hostnames reduces the number of DNS lookups. CWS-NS should be built with a minimum of DNS lookups on any page.

j. Shrinking JavaScript and CSS

Shrinking is the practice of removing unnecessary characters from code to reduce its size thereby improving load times. When code is Shrunk all comments are removed, as well as unneeded white space characters (space, newline, and tab). In the case of JavaScript, this improves response time performance because the size of the downloaded file is reduced.

Obfuscation is an alternative optimization that can be applied to source code. It's more complex than Shrinking and thus more likely to generate bugs as a result of the obfuscation step itself. CWS-NS envisions that obfuscation not be used.

In addition to Shrinking external scripts and styles, inlined <script> and <style> blocks can and should also be Shrunk. Even if scripts and styles are gzipped, Shrinking them will still reduce the size by 5% or more.

k. Avoid Redirects

Redirects are accomplished using the 301 and 302 status codes. The browser automatically takes the user to the URL specified in the Location field. All the information necessary for a redirect is in the headers. The body of the response is typically empty. Despite their names, neither a 301 nor a 302 response is cached in practice unless additional headers, such as Expires or Cache-Control, indicate it should be. The meta refresh tag and JavaScript are other ways to direct users to a different URL.

CWS-NS envisions using alternative methods to the re-direct method.

l. Remove Duplicate Scripts

It hurts performance to include the same script files twice in one page. Duplicate scripts hurt performance by creating unnecessary HTTP requests and wasted script execution.

One way to avoid accidentally including the same script twice is to implement a script management module or function in the application template system. In addition to preventing the same script from being inserted multiple times, this function could handle other issues with scripts, such as dependency checking and adding version numbers to script filenames to support far future Expires headers. CWS-NS would prefer to use this method to avoid duplicate script calls inside the application web pages.

m. Configure ETags or Avoid Them

Entity tags (ETags) are a mechanism that web servers and browsers use to determine whether the component in the browser's cache matches the one on the origin server. (An "entity" is another word for a "component": images, scripts, stylesheets, etc.) ETags were added to provide a mechanism for validating entities that is more flexible than the last-modified date. An ETag is a string that uniquely identifies a specific version of a component.

If the application is not designed to take advantage of the flexible validation model that ETags provide, it's better to just remove the ETag altogether. The Last-Modified header validates based on the component's timestamp. Removing the ETag reduces the size of the HTTP headers in both the response and subsequent requests.

n. Make Ajax Cacheable

To improve performance, it's important to optimize these Ajax responses. The most important way to improve the performance of Ajax is to make the responses cacheable, as discussed in Add an Expires or a Cache-Control Header. Some of the other rules also apply to Ajax:

- Gzip Components
- Reduce DNS Lookups
- Shrink JavaScript
- Avoid Redirects
- Configure ETags

Even though the Ajax responses are created dynamically, and might only be applicable to a single user, they can still be cached. Doing so will make CWS-NS faster.

o. Flush the Buffer Early

When users request a page, it can take anywhere from 200 to 500ms for the backend server to stitch together the HTML page. During this time, the browser is idle as it waits for the data to arrive. Use a flush function to allow the partially ready HTML response to be sent to the browser so that the browser can start fetching components while the backend is busy with the rest of the HTML page.

p. Use GET for AJAX Requests

When using XMLHttpRequest, POST is implemented in the browsers as a two-step process: sending the headers first, then sending data. So it's best to use GET, which only takes one TCP packet to send (unless there are a lot of cookies). The maximum URL length in IE is 2K, so if the page sends more than 2K data might not allow the use of GET.

An interesting side affect is that POST without actually posting any data behaves like GET. Based on the HTTP specs, GET is meant for retrieving information, so it makes sense (semantically) to use GET when only requesting data, as opposed to sending data to be stored server-side.

CWS-NS should be built using the correct command at the time the request is made.

q. Post-load Components

Work with the design of the CWS-NS application for splitting activities into before and after the onload event.

- Be sure to load the components that are needed in order to render the page first, then post-load any additional functions after the page is loaded.
- Other places to look for candidates for post-loading include hidden content (content that appears after a user action) and images below the fold.
- Most open source libraries provide easy capabilities to control the loading process.

r. Preload Components

Preload may look like the opposite of post-load, but it actually has a different goal. Preloading components takes advantage of the time the browser is idle and requests components (like images, styles and scripts) needed in the future. This way when the user visits the next page, most of the components are already in the cache and the page will load much faster for the user.

There are actually several types of preloading:

- **Unconditional preload** - as soon as onload fires, go ahead and fetch some extra components.
- **Conditional preload** - based on a user action the application makes an educated guess where the user is headed next and preload accordingly.
- **Anticipated preload** - preload in advance before launching a major upgrade or redesign of the site. This avoids the problem of the users visiting the old version with a full cache, but the new one is always an empty cache experience. This side effect can be mitigated by preloading components before deployment. The old version can use the time the browser is idle and request images and scripts that will be used by the new version.

s. Reduce the Number of DOM Elements

A complex page with many DOM elements means more bytes to download and it also means slower DOM access.

- It makes a difference if the page has to loop through either 500 or 5000 DOM elements on the page.
- A high number of DOM elements can be a symptom that there's something that should be improved with the markup of the page without necessarily removing content.
- Are there nested tables for layout purposes? Are there more s only to fix layout issues? Correct the semantics of the layout first.

Use the fewest elements possible to achieve the markup needed to render the page properly.

t. Split Components Across Domains

Splitting components allows for maximization of parallel downloads. Make sure that the page is not using more than 2-4 domains because of the DNS lookup penalty. For example dynamic content could be hosted on www.example.org and split static components between static1.example.org and static2.example.org

u. Minimize the Number of iframes

Iframes allow an HTML document to be inserted in the parent document. CWS-NS would prefer to not use Iframes since there are other methods to achieve anything that can be done with an Iframe.

v. No 404s

HTTP requests are expensive so making an HTTP request and getting a useless response (i.e. 404 Not Found) is totally unnecessary and will slow down the user experience without any benefit.

There is no reason to have 404s within a properly designed and tested application. CWS-NS will not allow 404s as a normal part of the application implementation.

w. Reduce Cookie Size

HTTP cookies are used for a variety of reasons such as authentication and personalization. Information about cookies is exchanged in the HTTP headers between web servers and

browsers. It's important to keep the size of cookies as low as possible to minimize the impact on the user's response time.

- Eliminate unnecessary cookies. Pass parameters and codes via Ajax instead.
- Keep cookie sizes as low as possible to minimize the impact on the user response time.
- Be mindful of setting cookies at the appropriate domain level so other sub-domains are not affected.
- Set an Expires date appropriately. An earlier Expires date or none removes the cookie sooner, improving the user response time.

x. Use Cookie-free Domains for Components

When the browser makes a request for a static image and sends cookies together with the request, the server doesn't have any use for those cookies. So they only create network traffic for no good reason. Make sure static components are requested with cookie-free requests. Create a subdomain and host all static components there.

y. Minimize DOM Access

Accessing DOM elements with JavaScript is slow so in order to have a more responsive page there are some rules to be followed:

- Cache references to accessed elements
- Update nodes "offline" and then add them to the tree
- Avoid fixing layout with JavaScript

z. Develop Smart Event Handlers

Sometimes pages feel less responsive because of too many event handlers attached to different elements of the DOM tree which are then executed too often. That's why using event delegation is a good approach.

- If there are 10 buttons inside a div, attach only one event handler to the div wrapper, instead of one handler for each button. Events bubble up so the event can be caught and figure out which button it originated from.
- There is no reason to wait for the onload event in order to start doing something with the DOM tree. Often all is needed is the element to be accessed to be available in the tree.

- Don't wait for all images to be downloaded. DOMContentLoaded is the event that should be used using instead of onload, but until it's available in all browsers, use one of the open source libraries that have “onAvailable” events.

aa. Use <link> over @import

In IE @import behaves the same as using <link> at the bottom of the page, so do not to use it.

bb. Avoid Filters

The IE-proprietary AlphaImageLoader filter aims to fix a problem with semi-transparent true color PNGs in IE versions < 7. The problem with this filter is that it blocks rendering and freezes the browser while the image is being downloaded. It also increases memory consumption and is applied per element, not per image, so the problem is multiplied.

The best approach is to avoid AlphaImageLoader completely and use gracefully degrading PNG8 instead, which are fine in IE.

cc. Optimize Images

All images should be optimized as much as possible including proper sizing and web-friendly formats. E.g. GIF and PNG.

dd. Optimize CSS Sprites

- Arranging the images in the sprite horizontally as opposed to vertically usually results in a smaller file size.
- Combining similar colors in a sprite helps keep the color count low, ideally under 256 colors so to fit in a PNG8.
- "Be mobile-friendly" and don't leave big gaps between the images in a sprite. This doesn't affect the file size so much but requires less memory for the user agent to decompress the image into a pixel map.

ee. Don't Scale Images in HTML

Don't use a bigger image than needed just by setting the width and height in HTML. If is needed then the image (mydog.jpg) should be 100x100px rather than a scaled down 500x500px image.

ff. Keep Components under 25K

This restriction is related to the fact that iPhone won't cache components bigger than 25K. Note that this is the uncompressed size. This is where Shrinking is important because gzip alone may not be sufficient.

gg. Pack Components into a Multipart Document

Packing components into a multipart document is like an email with attachments, it helps fetch several components with one HTTP request (remember: HTTP requests are expensive). When using this technique, first check if the user agent supports it (iPhone does not).

hh. Avoid Empty Image src

An image with empty string src attribute will cause the browser to make another request to the server.

- Internet Explorer makes a request to the directory in which the page is located.
- Safari and Chrome make a request to the actual page itself.
- Firefox 3 and earlier versions behave the same as Safari and Chrome, but version 3.5 addressed this issue[bug 444931] and no longer sends a request.
- Opera does not do anything when an empty image src is encountered.

HTML5 adds to the description of the tag's src attribute to instruct browsers not to make an additional request in section 4.8.2:

“The src attribute must be present, and must contain a valid URL referencing a non-interactive, optionally animated, image resource that is neither paged nor scripted. If the base URI of the element is the same as the document's address, then the src attribute's value must not be the empty string.”

Hopefully, browsers will not have this problem in the future. Unfortunately, there is no such clause for <script src=""> and <link href="">. Simply do not use empty img tags.

Appendix C. List of Document Sources

1. http://www.oasis-opencsa.org/sca
2. https://www.opengroup.org/projects/soa/doc.tpl?gdid=10632
3. http://www.w3.org/TR/offline-webapps/
4. http://www.oasis-open.org/committees/download.php/3406/oasis-sstc-saml-core-1.1.pdf
5. http://www.w3.org/TR/ws-policy/
6. http://docs.oasis-open.org/wsrf/wsrf-ws_resource-1.2-spec-os.pdf
7. http://docs.oasis-open.org/xacml/2.0/XACML-2.0-OS-NORMATIVE.zip
8. http://docs.oasis-open.org/ws-sx/ws-trust/v1.4/os/ws-trust-1.4-spec-os.html
9. http://www.oasis-opencsa.org/sdo
10. http://docs.oasis-open.org/soa-rm/soa-ra/v1.0/soa-ra-cd-02.pdf
11. http://www.w3.org/TR/html4/struct/links.html#h-12.3
12. http://www.w3.org/TR/html401/struct/objects.html#h-13.6
13. http://www.w3.org/TR/html401/
14. http://www.w3.org/TR/xhtml1/
15. http://www.w3.org/TR/xhtml2/
16. http://csrc.nist.gov/publications/fips/fips199/FIPS-PUB-199-final.pdf
17. http://www.itl.nist.gov/fipspubs/fip193.htm
18. http://www.itl.nist.gov/fipspubs/fip181.htm
19. http://www.itl.nist.gov/fipspubs/fip112.htm
20. http://docs.oasis-open.org/ws-sx/ws-securitypolicy/v1.3/os/ws-securitypolicy-1.3-spec-os.html

21. http://www.cio.ca.gov/wiki/TRM.ashx

22. http://www.w3.org/TR/2004/NOTE-ws-gloss-20040211/

23. http://www.oasis-open.org/specs/#xacmlv2.0

24. http://www.oasis-open.org/specs/#dssv1.0

25. http://www.oasis-open.org/specs/#dsmlv2

26. http://www.oasis-open.org/specs/#samlv2.0

27. http://www.oasis-open.org/specs/#wssv1.1

28. http://www.oasis-open.org/specs/#wssecconv1.4

29. http://www.oasis-open.org/specs/#wssecpolv1.3

30. http://www.w3.org/TR/2004/NOTE-ws-arch-20040211/#security

31. http://www.w3.org/TR/2004/NOTE-ws-gloss-20040211/

32. http://www.oasis-open.org/committees/download.php/16790/wss-v1.1-spec-os-SOAPMessageSecurity.pdf

33. http://docs.oasis-open.org/dss/v1.0/oasis-dss-core-spec-v1.0-os.html

34. http://csrc.nist.gov/publications/nistpubs/800-57/sp800-57-Part1-revised2_Mar08-2007.pdf

35. http://csrc.nist.gov/publications/nistpubs/800-57/SP800-57-Part2.pdf

36. http://csrc.nist.gov/publications/nistpubs/800-57/sp800-57_PART3_key-management_Dec2009.pdf

37. http://csrc.nist.gov/publications/nistpubs/800-56A/SP800-56A_Revision1_Mar08-2007.pdf

38. http://csrc.nist.gov/publications/nistpubs/800-56B/sp800-56B.pdf

39. http://tools.ietf.org/html/rfc4510

40. http://www.w3.org/TR/P3P11/

41. http://www.ietf.org/rfc/rfc4301.txt

42. http://csrc.nist.gov/publications/fips/fips46-3/fips46-3.pdf

43. http://www.owasp.org/index.php/Threat_Risk_Modeling

44. http://msdn.microsoft.com/en-us/security/aa570411.aspx

45. http://www.immagic.com/eLibrary/TECH/US_DOC/N060901S.pdf

46. http://csrc.nist.gov/publications/drafts/800-63-rev1/SP800-63-Rev1_Dec2008.pdf

47. http://www.sans.org/top25-software-errors/

48. http://www.niem.gov/files/NIEM_IEPD_Requirements_v2_1.pdf

CDSS
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Child Welfare Services New System Project

Evaluation Framework

September 2012

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1. Introduction

This section outlines the evaluation framework the CAST utilized to assess and select the best technical alternative to support CWS practice in a single statewide automated system.

2. Summary of Evaluation Process

The study evaluation process and methodology are based upon the CWS/CMS TAAA evaluation framework. The evaluation process and framework emphasized the degree to which each alternative compares to the specific evaluation factors and criteria. This approach provided greater sensitivity to how well or how poorly each alternative compared using each criterion. Evaluation was based on independent judgment, the understanding by the team of CWS critical needs and priorities, and expert opinion. The following table provides an overview of the evaluation process.

Table 1 – Evaluation Process

Process/Event	Description
Gather data	Data were gathered from prior research, historical shelf data, best practices, and subject matter experts from OTech, Tech Agency, CWDA, PIAC, TAC, OSC, and others.
Identify and analyze a range of technical alternative solutions	The CAST conducted extensive analysis of the alternatives, including development of alternative scenarios, schedules and a 10-year Total Cost of Ownership
Validated technical alternative solutions	Governance Structure committees reviewed and vetted the technical alternative solutions being considered by the CAST.
Identify criteria against which to measure the potential alternatives	The CAST identified factors and criteria similar to the TAAA. The criteria were validated by the Governance Structure committees.
Weight evaluation criteria to represent assessment priorities	The Governance Structure committees reached consensus on the weighting of the evaluation criteria.
Assess each alternative's ability to meet the defined criteria based on a rating scale	The CAST used expert opinion to assess the capability of each alternative to meet the individual criteria.
Conduct a separate cost evaluation using the ten (10) year total cost of ownership of each alternative to assign points based	The CAST conducted a separate cost evaluation, similar in respects to the methods used by the State to evaluate costs in a competitive bid.

Process/Event	Description
on a cost-variance formula	
Derive a score for each alternative	Following the allocation of cost and non-cost points (total of 1000 points available), the CAST selected the alternative with the highest score as the recommended solution for CWS.

3. Evaluation Factors and Criteria

The CAST developed and categorized the non-cost evaluation factors for the proposed technical alternatives in five major areas: CWS Business Needs, Technical Viability, SACWIS, Time, and Risks. The criteria defined the critical functional and technical considerations which differentiate the viability of the alternatives in meeting currently established business needs. The following table provides an overview of the non-cost evaluation factors and criteria.

Table 2 – Non-Cost Evaluation Factors and Criteria

CWS Business Needs	
Ability to meet missing critical functionality	The alternative's ability to support missing functionality critical to CWS operations.
Ability to improve existing functionality	The alternative's ability to support the enhancement and or modifications of the functionality currently available.
Ability to improve usability	The alternative's ability to improve the user interface. Usability is the measure of the effectiveness and efficiency of a user's experience using a system. Usability characteristics include: Ease of learning – how quickly can new users learn to accomplish basic tasks. Ease of system navigation – if a user has used the system before, can he or she remember "how" to do something, or do they have to relearn the task. Error frequency and severity – how often do users make mistakes and are they able to recover from those mistakes.

Technical Viability	
Ability to support new functionality	The alternative's ability to support the addition of the new functionality as needed due to CWS practice changes.
Manageability/simplicity	The alternative's ability to provide sets of information related to system health, performance, and usage, and the ability to be controlled and configured easily.
Architectural openness	The alternative's ability to support multiple vendors or products to prevent "lock-in" and encourage procurement competitiveness.
Scalability	The ease with which the alternative can be altered to effectively and efficiently service user and system demands.
Flexibility and extensibility	The alternative's ability to easily support augmentation without compromising the original architecture.
Ease of integration/interface standardization	The ability of the alternative to integrate or provide interfaces to other systems via common industry standard protocols and services.
SACWIS	
Ability to become SACWIS compliant	The alternative's ability to incorporate the SACWIS required functions including the required interfaces.
Ability to receive full FFP	The alternative's ability to implement the SACWIS requirements in a manner that ensures the continuance of FFP funding.
Time	
Ability to provide missing critical functionality and improve existing functionality in a timely manner	The alternative's ability to deliver new functionality in a timely fashion (irrespective of the time to obtain approvals for the changes).
Ability to deliver benefits incrementally over time	The ability of the alternative to deliver benefits incrementally over time.

Risks	
Financial Risk	The alternative's risk of deviation from the proposed budget.
Technical Risk	The alternative's risk related to the complexity of development and implementation.
Operational Risk	The alternative's risk associated with disruption to current operational processes and routines.
Program Risk	The alternative's risk associated with disruption to program processes and routines.
Competitive Procurement Risk	The alternative's ability to provide for market competitiveness.
Schedule Risk	The alternative's risk of deviation from the proposed schedule.
Implementation Risk	The alternative's ability to limit risk / complexity associated with implementation.

4. Rating Process

The CAST evaluated each alternative according to the evaluation factors and criteria. Then each alternative was assigned a rating for the evaluation criteria. Each rating was assigned a percentage of points to complete the scoring process. The following table illustrates the ratings utilized as part of the evaluation process.

Table 3 – Rating Scale

Rating	General Rating Framework	Percentage of points achieved
Excellent	The alternative's ability to meet the evaluation criteria exceeds the standards.	**100%**
Above Average	The alternative's ability to meet the evaluation criteria is above standards.	**75%**
Acceptable	The alternative's ability to meet the evaluation criteria meets standards.	**50%**
Marginally Acceptable	The alternative's ability to meet the evaluation criteria is below the standards.	**25%**
Unacceptable	The alternative does not meet the standards.	**0%**

5. Scoring Process

For the non-cost evaluation, the CAST assessed each of the alternatives according to the evaluation factors and criteria. The alternatives were assigned a rating for each non-cost criteria. The CAST assigned each rating a percentage of points to complete the scoring process. Total points available for the non-cost evaluation were 850 (out of 1000 total points). The following table illustrates the criteria and criteria weightings used for this analysis.

Table 4 – Non-Cost Criteria and Criteria Weightings (Available Points)

Evaluation Factors	Criteria	Available Points
CWS Business Needs	Ability to meet missing critical functionality	100
	Ability to improve existing functionality	100
	Ability to improve usability	100
	Sub-Total	**300**
Technical Viability	Ability to support new functionality	45
	Manageability/Simplicity	25
	Architectural openness	25
	Scalability	35
	Flexibility and extensibility	35
	Ease of integration/interface standardization	40
	Sub-Total	**205**
SACWIS	Ability to become SACWIS compliant	5
	Ability to receive full Federal Financial Participation	20
	Sub-Total	**25**
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125
	Ability to deliver benefits incrementally over time	125
	Sub-Total	**250**
Risks	Financial Risk	13
	Technical Risk	9
	Operational Risk	9
	Program Risk	12
	Competitive Procurement Risk	9
	Schedule Risk	9
	Implementation Risk	9
	Sub-Total	**70**
	Total	**850**

6. Cost Scoring Methodology

The CAST calculated the estimated cost score for each alternative using the following methodology. The score is based on the estimated cost (i.e., the lowest cost alternative divided by each alternative) and the maximum points. Each alternative cost score was calculated by multiplying the cost factor by the maximum number of points available to obtain the cost score. The cost factors were carried out three decimal places for the calculations, and the points were rounded up or down to the closest whole number.

The following table illustrates the computation process[1], assuming the example "Alternative 3" is the alternative with the lowest cost estimate.

Table 5 – Example of Cost-Scoring Methodology

Alternative	Proposed Cost	Cost Factor	Maximum Points	Calculation	Cost Score
1	$71,250	$\frac{\$59,750}{\$71,250}$ = .832	150	.832 X 150	125
2	$67,500	$\frac{\$59,750}{\$67,500}$ = .885	150	.885 X 150	133
3	$59,750	$\frac{\$59,750}{\$59,750}$ = 1.000	150	1000 X 150	150

Scores for each of the five major areas: CWS Business Needs, Technical Viability, SACWIS, Time, and Risks were combined with the cost score to calculate final scores with the maximum of 1,000 points.

7. Scoring Results

The New System— Buy/Build alternative was determined to be the best alternative to support California CWS practice in a single statewide automated system. The following table illustrates the total scores for each alternative.

Table 6 – Total Scores for all Alternatives

Alternatives	CWS/CMS Upgrade	Restart CWS/Web	New System Custom	New System Buy/Build
Total Score	474.7	742.7	847.9	904.8

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

[1] Figures in the example explain the computations and have no other significance.

8. Non-Cost Scoring Results

For the non-cost evaluation, the alternatives were compared using each criterion and rated in terms of how well each alternative met the specific criteria. The following table provides a visual representation of this process. The New System – Buy/Build alternative performed the best against the criteria. Visual representation is used to indicate what percentage of points each alternative achieved for each category in Table 8 – Non-Cost Scoring Results of All Alternatives.

Table 7 – Visual Representation of Non-Cost Scoring Evaluation Ratings

Rating	Percent of Points Achieved	Visual
Excellent	100%	●
Above Average	75%	◕
Acceptable	50%	◑
Marginally Acceptable	25%	◔
Unacceptable	0%	○

Table 8 – Non-Cost Scoring Results of All Alternatives

Factors	Criteria	CWS/CMS Upgrade	Restart CWS/Web	New System Custom	New System Buy/Build
CWS Business Needs	Ability to meet missing critical functionality	◑	●	●	◕
	Ability to improve existing functionality	◑	●	●	◕
	Ability to improve usability	◑	●	●	◕
Technical Viability	Ability to support new functionality	◑	●	●	●
	Manageability/Simplicity	◑	◕	◕	●

Factors	Criteria	CWS/CMS Upgrade	Restart CWS/Web	New System Custom	New System Buy/Build
	Architectural openness	◔	●	●	◕
	Scalability	◔	●	●	●
	Flexibility and extensibility	◔	●	●	◕
	Ease of integration /interface standardization	◔	◑	◕	●
SACWIS	Ability to become SACWIS compliant	◑	●	●	●
	Ability to receive full Federal Financial Participation	◑	◕	●	●
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	◑	◑	◕	●
	Ability to deliver benefits incrementally over time	◑	◑	◕	●
Risks	Financial Risk	◑	◑	◕	●
	Technical Risk	◑	◑	◕	●
	Operational Risk	◔	◔	◕	●
	Program Risk	◔	◔	◕	◕
	Competitive Procurement Risk	◑	◑	◕	◕
	Schedule Risk	◑	◑	◕	●
	Implementation Risk	◑	◔	◕	●

The tables below provide the detailed assessment of each alternative against the specified criteria using the rating scale.

Table 9 – Alternative 1 – CWS/CMS Upgrade – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Acceptable	50%	50.0
	Ability to improve existing functionality	100	Acceptable	50%	50.0
	Ability to improve usability	100	Acceptable	50%	50.0
	Sub-Total	300			150.0
Technical Viability	Ability to support new functionality	45	Acceptable	50%	22.5
	Manageability/Simplicity	25	Acceptable	50%	12.5
	Architectural openness	25	Marginally Acceptable	25%	6.3
	Scalability	35	Marginally Acceptable	25%	8.8
	Flexibility and extensibility	35	Marginally Acceptable	25%	8.8
	Ease of integration/interface standardization	40	Marginally Acceptable	25%	10.0
	Sub-Total	205			68.8
SACWIS	Ability to become SACWIS compliant	5	Acceptable	50%	2.5
	Ability to receive full Federal Financial Participation	20	Acceptable	50%	10.0
	Sub-Total	25			12.5
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Acceptable	50%	62.5
	Ability to deliver benefits incrementally over time	125	Acceptable	50%	62.5
	Sub-Total	250			125.0
Risks	Financial Risk	13	Acceptable	50%	6.5
	Technical Risk	9	Acceptable	50%	4.5
	Operational Risk	9	Marginally Acceptable	25%	2.3
	Program Risk	12	Marginally Acceptable	25%	3.0
	Competitive Procurement Risk	9	Acceptable	50%	4.5
	Schedule Risk	9	Acceptable	50%	4.5
	Implementation Risk	9	Acceptable	50%	4.5

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
	Sub-Total	70			29.8
	Total	850			386.1

Table 10 – Alternative 2 – Restart CWS/Web – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Excellent	100%	100.0
	Ability to improve existing functionality	100	Excellent	100%	100.0
	Ability to improve usability	100	Excellent	100%	100.0
	Sub-Total	300			300.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Above Average	75%	18.8
	Architectural openness	25	Excellent	100%	25.0
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Excellent	100%	35.0
	Ease of integration/interface standardization	40	Acceptable	50%	20.0
	Sub-Total	205			178.8
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0
	Ability to receive full Federal Financial Participation	20	Above Average	75%	15.0
	Sub-Total	25			20.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Acceptable	50%	62.5
	Ability to deliver benefits incrementally over time	125	Acceptable	50%	62.5
	Sub-Total	250			125.0
Risks	Financial Risk	13	Acceptable	50%	6.5
	Technical Risk	9	Acceptable	50%	4.5
	Operational Risk	9	Marginally Acceptable	25%	2.3

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
	Program Risk	12	Marginally Acceptable	25%	3.0
	Competitive Procurement Risk	9	Acceptable	50%	4.5
	Schedule Risk	9	Acceptable	50%	4.5
	Implementation Risk	9	Marginally Acceptable	25%	2.3
	Sub-Total	70			27.5
	Total	850			651.3

Table 11 – Alternative 3, Option 1 – CWS New System – Custom – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Excellent	100%	100.0
	Ability to improve existing functionality	100	Excellent	100%	100.0
	Ability to improve usability	100	Excellent	100%	100.0
	Sub-Total	300			300.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Above Average	75%	18.8
	Architectural openness	25	Excellent	100%	25.0
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Excellent	100%	35.0
	Ease of integration/interface standardization	40	Above Average	75%	30.0
	Sub-Total	205			188.8
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0
	Ability to receive full Federal Financial Participation	20	Excellent	100%	20.0
	Sub-Total	25			25.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Above Average	75%	93.8

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
	Ability to deliver benefits incrementally over time	125	Above Average	75%	93.8
	Sub-Total	250			187.5
Risks	Financial Risk	13	Above Average	75%	9.8
	Technical Risk	9	Above Average	75%	6.8
	Operational Risk	9	Above Average	75%	6.8
	Program Risk	12	Above Average	75%	9.0
	Competitive Procurement Risk	9	Above Average	75%	6.8
	Schedule Risk	9	Above Average	75%	6.8
	Implementation Risk	9	Above Average	75%	6.8
	Sub-Total	70			52.5
	Total	850			753.8

Table 12 – Alternative 3, Option 2 – CWS New System – Buy/Build – Non-Cost Scoring Evaluation

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
CWS Business Needs	Ability to meet missing critical functionality	100	Above Average	75%	75.0
	Ability to improve existing functionality	100	Above Average	75%	75.0
	Ability to improve usability	100	Above Average	75%	75.0
	Sub-Total	300			225.0
Technical Viability	Ability to support new functionality	45	Excellent	100%	45.0
	Manageability/simplicity	25	Excellent	100%	25.0
	Architectural openness	25	Above Average	75%	18.8
	Scalability	35	Excellent	100%	35.0
	Flexibility and extensibility	35	Above Average	75%	26.3
	Ease of integration/interface standardization	40	Excellent	100%	40.0
	Sub-Total	205			190.0
SACWIS	Ability to become SACWIS compliant	5	Excellent	100%	5.0

Evaluation Factors	Criteria	Available Points	Rating	Percentage	Awarded Points
	Ability to receive full Federal Financial Participation	20	Excellent	100%	20.0
	Sub-Total	25			25.0
Time	Ability to provide missing critical functionality and improve existing functionality in a timely manner	125	Excellent	100%	125.0
	Ability to deliver benefits incrementally over time	125	Excellent	100%	125.0
	Sub-Total	250			250.0
Risks	Financial Risk	13	Excellent	100%	13.0
	Technical Risk	9	Excellent	100%	9.0
	Operational Risk	9	Excellent	100%	9.0
	Program Risk	12	Above Average	75%	9.0
	Competitive Procurement Risk	9	Above Average	75%	6.8
	Schedule Risk	9	Excellent	100%	9.0
	Implementation Risk	9	Excellent	100%	9.0
	Sub-Total	70			64.8
Total		850			754.8

The following table illustrates the cost-scoring methodology for each alternative.

Table 13 – Cost Criteria and Calculation

Alternative	Estimated Cost	Calculation	Maximum Points	Cost Score
CWS/CMS Upgrade	$828,603,307	0.590	150	88.6
Restart CWS/Web	$803,095,671	0.609	150	91.4
New System Custom	$778,969,417	0.627	150	94.1
New System Buy/Build	$488,729,844	1.000	150	150.0

As a result of both the non-cost and cost evaluation of the technical alternatives being considered in the CWS Automation Study, the New System Buy/Build alternative was confirmed as the best overall solution. The following table summarizes the result of this evaluation:

Table 14 – Evaluation Summary

Alternative	Non-Cost Points	Cost Points	Total Score
CWS/CMS Upgrade	386.1	88.6	474.7
Restart CWS/Web	651.3	91.4	742.7
New System Custom	753.8	94.1	847.9
New System Buy/Build	754.8	150.0	904.8

Scorecards provide visual representation of how well each alternative met the six major areas: CWS Business Needs, Technical Viability, SACWIS, Time, Cost and Risks, plus an overall score.

The following table shows the different rating levels of the evaluation framework in visual form, based on their scoring percentage. The scorecard below is an example of how a particular alternative might be scored, using the visual to display each rating.

Table 15 – Scorecard Ratings Visual Representation and Scorecard Example

Rating	Percent of Points Achieved	Visual
Excellent	81 - 100%	●
Above Average	61 - 80%	◕
Acceptable	41 - 60%	◑
Marginally Acceptable	21 - 40%	◔
Unacceptable	0 – 20 %	○

Visual Representation Scorecard Example Scorecard	
Business	◔
Technical	◔
SACWIS	◔
Time	◔
Cost	◑
Risk	◔
34% **overall score**	

State of California

California Technology Agency

Questionnaire for Information Security and Privacy Components in Feasibility Study Reports and Project-Related Documents

SIMM 20D

January 2012

Questionnaire for Information Security and Privacy Components in Feasibility Study Reports and Project-Related Documents

The following Questionnaire provides state agencies guidance and direction for including information security and privacy components in Feasibility Study Reports and other project-related documents. The Office of Information Security and Privacy Protection reviews these documents to ensure information security and privacy components are addressed by the state agency and then provides recommendations to the Office of the Chief Information Officer and the applicable super Agency.

This Questionnaire provides state agencies the opportunity to describe the information security and privacy components associated with an IT project.

If any of the answers could be considered sensitive in nature, the agency should address them in a separate addendum marked "Confidential" and included as an attachment to the document.

Information Security Officer (ISO) Role and Responsibilities

1. What is the role and responsibilities of the Department ISO in relationship to this project?

   The Department ISO provides state oversight of the project as it pertains to information security.

2. Will the ISO be involved in developing and reviewing the security requirements?

   The ISO will review data security and Disaster Recovery Planning (DRP) requirements and related contract deliverables.

3. Will the ISO be involved in developing and reviewing the security testing efforts?

   In collaboration with the State, technical consultant, and selected vendor staff, the ISO will be involved in developing and reviewing the data security and DRP testing efforts.

4. Has the ISO participated in the response to these questions and signed off on the project-related document(s)?

   The ISO has provided information and reviewed these responses. The ISO does not have sign-off authority, but will be included in the internal oversight reviews related to data security and DRP.

Proposed System

1. Who will be the designated owner of the proposed system (system)?

   The California Department of Social Services will own the hardware and any custom code, but will license rights to use various proprietary software required for the proposed system.

2. Who will be the custodians and users of the system?

   The custodian of the system will be California's County Child Welfare Services Programs and the contractor retained to provide maintenance and operation of the new system.

   The system users will be State of California, County Child Welfare Services, Juvenile, Probate, and Family Courts, County Probation Departments, selected vendor, federal agencies, and other government and non-government entities directly involved with the administration and provision of child welfare services.

3. Has the data for the system been classified by the owner? Explain.

   The Child Welfare Services Program-CWS/CMS "Draft Recommendations of Information Security Best Practices document" provides the best practices and recommendations for the security and handling of confidential/sensitive data, such as the Child Welfare Service Program-CWS/CMS data. This document also includes Security recommendations as determined by the California ISO, the Information Security Program Guide for State Agencies (April 2008), State Administrative Manual (SAM) 5300, Statewide Information Management Manual (SIMM), National Institute of Standards and Technology (NIST) and Welfare and Institutions Code, Section 10850. Based upon SAM Section 5320.5, Classification of Information, this document also contains Personal Information, including Notice-Triggering Personal Information.

4. Does the project require development of new application code or modification of existing code? Explain.

   The proposed solution will deliver a fully-operational product purchased from the vendor selected during the procurement process. Custom-developed services will be built to extend the purchased product to fit gaps required to support business practice, law and/or policy.

5. Will your agency share the data for the system with other entities? If so, who?

   a. Federal partners

      U.S. Department of Health and Human Services, Administration for Children and Families; Centers for Medicaid and Medicare Services

   b. Local city/county partners

      County welfare divisions; county public health departments; county mental health departments; county alcohol and drug treatment program departments; Child Support, Juvenile Court, County Counsel (Legal),

Ombudsman; Probation; school districts; community colleges; local government operated job training programs.

c. State agency partners

California Department of Social Services; California Department of Health Services; California Department of Mental Health; California Department of Alcohol and Drug Programs; Department of Developmental Services; Department of Justice; Department of Education; Office of Criminal Justice Planning; Department of Corrections; and California Technology Agency. *

d. Judicial branch

California State Department of Justice; Federal District Courts; County Juvenile Court; County Family Court; County Probate Court; State Judicial Council and Administrative Office of the Courts.

e. Universities

U.C. Berkeley and other public and private universities engaged in research and program/outcome monitoring under contract with the State.

f. Researchers

Organizations conducting program and pilot project evaluation and monitoring under contract with the State, county or federal government.

g. Others

Child Advocates, Court Appointed Special Advocates, Catholic Charities, First Five, CWS service providers.

6. If data for the system is to be shared with other entities, will your agency implement data exchange agreements with the entities? Explain.

Data exchange agreements will be implemented between all entities. These agreements will follow all federal and state statutes and policies associated with data being exchanged, including confidentiality and security protocols for protecting the data.

7. Are there checkpoints throughout the software development life cycle (SDLC) verifying and certifying that the security requirements are being met?

Security checkpoints and project deliverables will verify security requirements are being met including, but not limited to: System Development Lifecycle Orientation and Materials, System Requirements Document, Requirements Traceability Matrix and Report, Technical Infrastructure Design Document,

Information Systems Security Plan, Network Design Plan, Technical Infrastructure Review and Acceptance Document, Application Software SDLC Standards, Interface Control Documents, Integration Test Results Report, System Test Results Report, User Acceptance Test Certification of Successful Completion, Certification of Operational Readiness, and Final Acceptance Certification.

8. At what points will risk assessments be performed throughout the SDLC?

   Risk assessments will be performed at least monthly throughout the SDLC.

9. At what point will vulnerability assessments be performed once the system is put into production (e.g., ongoing risk management after implementation)?

   Once the new system is in production, real-time security monitoring and ongoing security vulnerability and threat analyses will be performed throughout the life of the system.

10. Will this system collect federal data? If so, have you yet determined the National Institute for Standards and Technology 800-53 rating (i.e., high / medium / low)?

    Yes, the system will collect federal data. The system will comply with the security controls specified in NIST Special Publication 800-53 (Recommended Security Controls for Federal Information Systems and Organizations) with at least the medium rating baseline security controls as a starting point. During development, implementation and maintenance stages, the system security control baseline will be tailored based on risk assessments and resulting security plan enhancements.

    The recommended Child Welfare Services Program-CWS/CMS data classification regarding Confidentiality, Integrity and Availability is the medium security category (NIST 800-60, Guide to for Mapping Types of Information and Information Systems to Security Categories and NIST 800-53, Recommended Security Controls or Federal Information Systems and Organizations).

11. Does your state agency's Five Year IT Capital Plan address information security and privacy as related to this system?

    Yes, the California Department of Social Services is included in the HHS Agency Five Year IT Capital Plan.

CDSS
CALIFORNIA DEPARTMENT OF SOCIAL SERVICES

Child Welfare Services
New System Project

Appendix K – Validation of the Buy/Build Feasibility

July 2012

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1. RFI #2 Results 5

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Validation of Buy/Build Feasibility

In parallel with the development of the Legislative Report, the Child Welfare Services Automation Study Team (CAST) released two Request for Information (RFI)s. The result of the initial assessment of the two RFIs was provided in the Legislative Report. The vendor responses to RFI #2 and further analysis of the Child Welfare Service/Case Management System (CWS/CMS) has validated the feasibility of the buy/build approach as the delivery model for the CWS/CMS replacement.

1. **RFI** #2 Results

In RFI # 2, each vendor was provided a "CWS Capabilities Matrix", that established a framework of services and operational capabilities that are required for the CWS/CMS replacement. Each vendor was asked to identify which capabilities their product could provide out-of-the-box, which ones would require custom service development and which could not be provided at all. Using the vendor responses from the CWS Capabilities Matrix as the baseline, a detailed analysis of the responses was executed. Table 1 provides a summary of the responses by vendor. Responses were analyzed by absolute and relative numbers as they pertained to total capabilities, out-of-the-box capabilities, and custom service (gap) requirement development. Some vendors provided "no response" to certain capabilities, and these were assessed as well.

Of the 1,120 total capabilities, the capabilities that the vendors could provide straight out-of-the-box ranged from 70 to 84 percent. The missing capabilities or gaps that require the development of custom services ranged from 13 to 30 percent. Except for one vendor, the no responses were very low, essentially ranging from one to two percent.

The capabilities, which vendors indicated required custom service development or provided no response, were determined to be critical to CWS practice and were also needed to comply with SACWIS requirements. Consequently, the State will need to develop some custom services to provide these capabilities in the future.

The CAST established a minimum threshold of 65 percent for the amount of capabilities vendor solutions must provide straight out-of-the-box. Based on vendor responses to RFI #2, all six vendors exceeded the State's threshold and confirmed that the Buy/Build alternative is a viable approach.

Table 1 - Vendor Capabilities Analysis Summary

Vendor	Total Capabilities	Out-of-the-Box	Custom Services	No Response	% Out-of-the-Box	% Custom Service	% No Response
1	1,120	869	234	17	78%	21%	2%
2	1,120	944	164	12	84%	13%	1%
3	1,120	785	338	7	70%	30%	1%
4	1,120	824	278	22	74%	24%	2%
5	1,120	910	80	130	81%	7%	12%

6	**1,120**	**973**	**149**	**12**	**87%**	**13%**	**1%**

Table 2 provides a detailed summary of the responses by business segment that were provided by the vendors. Note that most of the vendors have at least one or more business segments identified that require less than ten percent custom service development.

Each vendor has reported at least one business segment that requires more than 50 percent of the functionality to be created with custom services. The nature of the software services (based on regulation and policy) supporting the Intake, Court Processing, Additional Functionality and Quality Assurance business segments are expected to require more custom service development. The areas of Case Management, Eligibility, Financial Management and Resource Management are expected to be more globally standardized (across CWS business practice from State to State) and therefore require less custom service development. These business segments also support the majority of the work that is executed by CWS Workers in their day-to-day activities. The ability to deliver the required functional capabilities (services) in these business segments is critical for rapid delivery of business value and control of cost expenditures.

Table 2 - Vendor Capabilities by Business Segment

Vendor/Business Segment	Core	Custom	Total Capabilities	% Core	% Custom
1	**869**	**251**	**1120**		
Additional Functionality	90	27	117	77%	23%
Administration	48	9	57	84%	16%
Case Management	428	98	526	81%	19%
Court Processing	36	14	50	72%	28%
Eligibility	81	54	135	60%	40%
Financial Management	53	6	59	90%	10%
Intake	95	24	119	80%	20%
Quality Assurance	2	15	17	12%	88%
Resource Management	36	4	40	90%	10%
2	**944**	**176**	**1120**		
Additional Functionality	78	39	117	67%	33%
Administration	48	9	57	84%	16%
Case Management	504	22	526	96%	4%
Court Processing	47	3	50	94%	6%
Eligibility	113	22	135	84%	16%
Financial Management	55	4	59	93%	7%
Intake	59	60	119	50%	50%
Quality Assurance	0	17	17	0%	100%
Resource Management	40	0	40	100%	0%

Vendor/Business Segment	Core	Custom	Total Capabilities	% Core	% Custom
3	**785**	**335**	**1120**		
Additional Functionality	49	68	117	42%	58%
Administration	46	11	57	81%	19%
Case Management	398	128	526	76%	24%
Court Processing	20	30	50	40%	60%
Eligibility	96	39	135	71%	29%
Financial Management	29	30	59	49%	51%
Intake	98	21	119	82%	18%
Quality Assurance	16	1	17	94%	6%
Resource Management	33	7	40	83%	18%
4	**824**	**296**	**1120**		
Additional Functionality	86	31	117	74%	26%
Administration	37	20	57	65%	35%
Case Management	388	138	526	74%	26%
Court Processing	31	19	50	62%	38%
Eligibility	114	21	135	84%	16%
Financial Management	43	16	59	73%	27%
Intake	90	29	119	76%	24%
Quality Assurance	0	17	17	0%	100%
Resource Management	35	5	40	88%	13%
5	**918**	**202**	**1120**		
Additional Functionality	41	76	117	35%	65%
Administration	57	0	57	100%	0%
Case Management	489	37	526	93%	7%
Court Processing	44	6	50	88%	12%
Eligibility	95	40	135	70%	30%
Financial Management	51	8	59	86%	14%
Intake	84	35	119	71%	29%
Quality Assurance	17	0	17	100%	0%
Resource Management	40	0	40	100%	0%
6	**973**	**147**	**1120**		
Additional Functionality	108	9	117	92%	8%
Administration	55	2	57	96%	4%
Case Management	437	89	526	83%	17%
Court Processing	46	4	50	92%	8%
Eligibility	99	36	135	73%	27%
Financial Management	55	4	59	93%	7%
Intake	116	3	119	97%	3%
Quality Assurance	17	0	17	100%	0%
Resource Management	40	0	40	100%	0%

Child Welfare Services/Case Management System

CWS/CMS GOVERNANCE STRUCTURE

Version 1.0

March 7, 2011

CWS/CMS Office

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Introduction
The Child Welfare Services/Case Management System (CWS/CMS) is a statewide application whose primary purpose is to enhance and support the effectiveness of California's Child Welfare Services (CWS) program. The CWS/CMS provides county CWS social work staff with access to child, family and case specific information so they are able to make sound and timely case decisions, and to perform effective case management. The CWS/CMS consolidates the collection and reporting of case information into a central statewide database.

1.0 This Document

This document is intended to describe the governance processes that are currently in place to focus state and county resources upon the program, policy, resource, budget, oversight and scheduling issues that support the viability of a vital statewide system.

This document will function as reference point for the CWS/CMS Communication Management Plan that guides the exchange of information amongst the CWS/CMS Office, customers and stakeholders.

2.0 CWS/CMS Management Structure

The Children and Family Services Division (CFSD) of the California Department of Social Services (CDSS) sponsors the Child Welfare Services Case Management System. While the program office has the responsibility to ensure that the automated Case Management System addresses the department's business and programmatic requirements and meets federal and state regulatory and funding requirements, it has contracted with the Office of Systems Integration (OSI) through an Inter Agency Agreement to deliver services in support of the CWS/CMS. The CWS/CMS Office assumes these responsibilities.

The CFSD Program management structure is comprised of a Program Sponsor supported by the Program Support Manager. The CWS/CMS Office management structure is comprised of the CWS Division Deputy Director supported by a Maintenance and Operations (M&O) Manager.

2.1 Program Sponsor

The Children and Family Services Division of the California Department of Social Services sponsor the Child Welfare Services/Case Management System. The Deputy Director of CFSD acts as the Program Sponsor and is responsible for defining the business needs and requirements, including legal and legislative requirements that must be included in a system

throughout its life cycle. Approval and funding of the scope, schedule and budgeting of the CWS/CMS Office activities are established by the Program Sponsor.

While the CWS Division Deputy Directorprovides assistance to ensure the CWS/CMS meets state and federal requirements according to established scope, schedule and budget, the Program Sponsor retains ownership and responsibility. Material changes to the CWS/CMS scope, schedule and budget must be reviewed and approved by the Program Sponsor. The Program Sponsor must also approve the CWS/CMS application update and change plans in response to the Strategic Plan and evolving program needs.

2.2 CFSD CWS/CMS Program Support Manager

The Program Support Manager acts on behalf of the Program Sponsor to ensure program requirements are incorporated into and supported by the CWS/CMS. The Program Support Manager also assists in identification of program-related change requirements and coordination of CDSS Program content experts for the development, review and validation of business requirements.

The Program Support Manager analyzes proposed and chaptered legislation for its impact on CWS/CMS; assessment and evaluation of potential changes in service requirements; communicate proposed technology changes and the impact on the program business practices. The Program Support Manager also assists the M&O Manager in providing technology briefings to the Program Sponsor.

2.3 CWS Division Deputy Director

The OSI appointed CWS Division Deputy Director is responsible for the day-to-day management and successful delivery of the CWS Division services in coordination with CDSS according to the requirements of an Interagency Agreement. Responsibilities include management of all resources assigned to the CWS Division; state staff, consultants, and vendors.

2.4 CWS/CMS Maintenance & Operations Manager

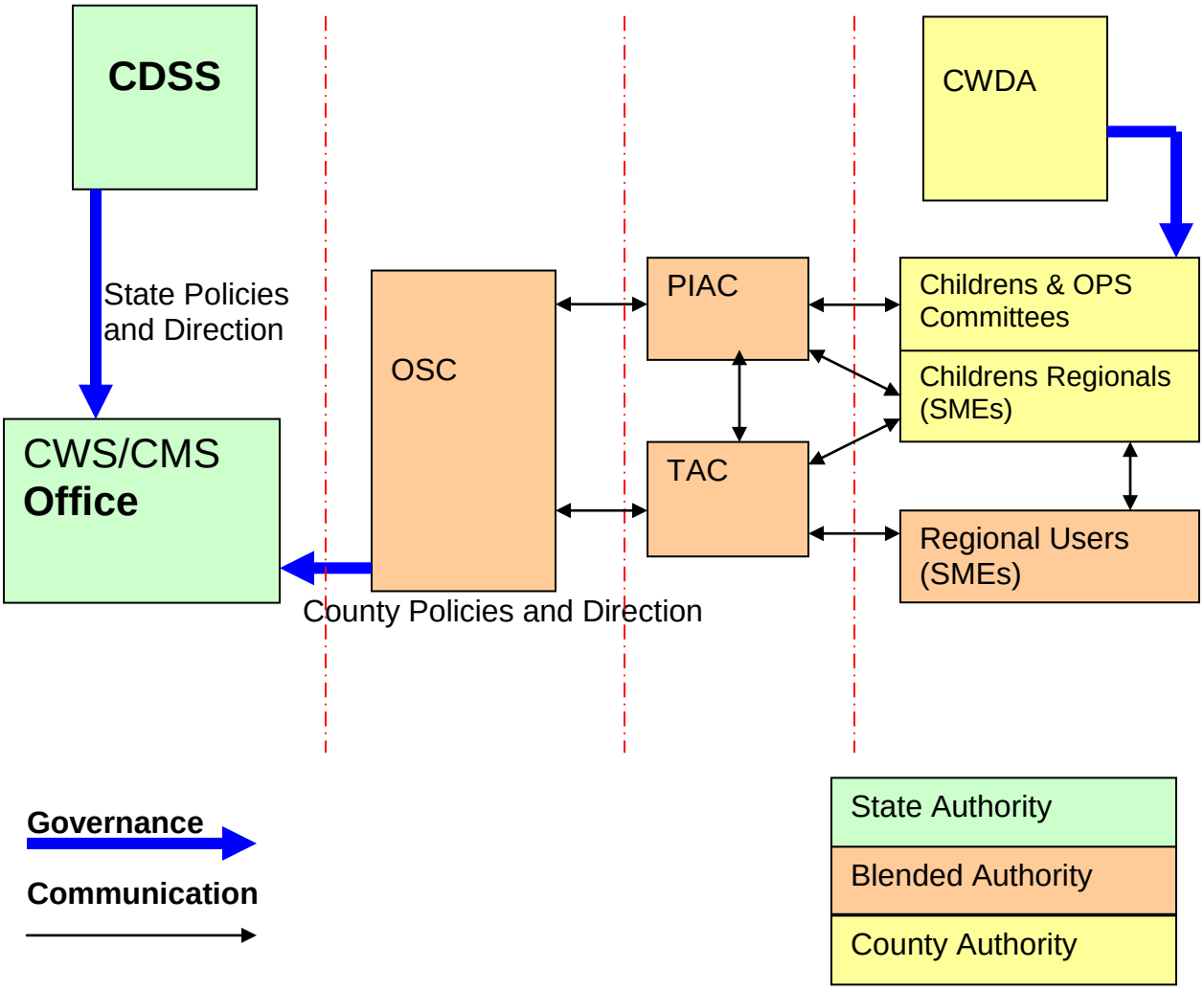
The CWS/CMS Maintenance and Operations (M&O) Manager supports the CWS Division Deputy Director by assuming responsibility for the maintenance and operation of the CWS/CMS system. The M&O Manager also assumes responsibility for CWS/CMS administration and is the program office’s primary contact for all tactical fiscal, administrative and technical activities in regards to that system.

3.0 CWS/CMS Governance Structure

The CWS/CMS Governance Structure provides the CWS/CMS Office with direction and oversight in the areas of resources, budget and schedule.

This diagram displays the essential elements of governance for the CWS/CMS , emphasizing the relationships amongst state, county and blended structures. Lines and arrows illustrate affinities and conduits for the exchange of information in support of the CWS/CMS.

Governance Flow and Authority



3.1 CWS/CMS Executive Steering Committee

The Executive Steering Committee consists of

- Health and Human Services Agency Information Officer (Chair)
- Governor's Special Advisor on Information Technology
- Chief Deputy Director, CDSS
- Director, Office of Systems Integration (OSI)
- CWS/CMS Executive Liaison, California Welfare Directors Association (CWDA)
- Budgets, Department of Finance
- California Technology Agency
- Procurement Division, Department of General Services
- Governor's Office Representative

The Executive Steering Committee is responsible for:

- Oversight of progress on state strategic goals and any strategy modifications
- Review executive level CWS/CMS status updates including issues and risks with statewide impact
- Monitoring achievement of major CWS/CMS Office milestones
- Directing state resources to accomplish strategic goals

The Executive Steering Committee meets when necessary.

3.2 CDSS Executive Committee

The CDSS Executive Committee consists of:

- Chief Deputy Director, CDSS
- Deputy Director, CDSS Legal Division
- Chief Deputy, Office of Systems Integration
- Deputy Director, Office of Systems Integration, CWS Division
- Deputy Director, CDSS Information Systems Division
- Deputy Director, CDSS Children and Family Services Division
- Deputy Director, CDSS Administration Division

The CDSS Executive Committee manages CDSS political and fiscal issues, and provides executive leadership support to the CWS/CMS Office. The Committee monitors progress of CWS/CMS program objectives and expedites the resolution of issues and mitigation of risks to the CWS/CMS and to program objectives.

The CDSS Executive Committee meets monthly.

3.3 CWS/CMS-CDSS Management Committee

The CWS/CMS – CDSS Management Committee consists of

- CDSS Management
- CWS/CMS Office Management
- CWS/CMS Executive Liaison, CWDA

The CWS/CMS – CDSS Management Committee authorizes and approves

- Implementation of CWS/CMS initiatives
- Deployment of resources
- Budget allocations

The CWS/CMS – CDSS Management Committee meets monthly.

4.0 CWS/CMS Blended Governance Structure

The governance structures described in section 4.0 consist of committees that differ in important characteristics from those described in sections 2.0, CWS/CMS Management Structure, and 3.0, CWS/CMS Governance Structure. They differ in constituency, focus and authority. Where state committees focus on resources, budget and schedule, the blended structures focus on program and policy. Where state structures consist of state executive managers, blended structures consist primarily of county representatives and are provided leadership by the sponsor. This configuration places the blended structures astride the division between state and county governance.

The blended structures promote communication amongst each other in a system of shared or overlapping membership, shared chairman responsibilities, and the coordinated participation of CDSS, Oversight Committee and county users in the broad range of oversight, technical and policy working groups.

4.1 CWS/CMS Oversight Committee (OSC)

The CWS/CMS Oversight Committee consists of the following voting members:

- A county representative selected by the County Welfare Directors' Association (CWDA)
- The California Department of Social Services (CDSS) Children and Family Services Division (CFSD) Assistant Deputy Director
- CWDA Children's Committee Representation:
    - Bay Area
    - Mountain Valley
    - Northern
    - Southern

    - Central Valley
    - Los Angeles County
    - 20-Small Counties
- Chief Probation Officers of California (CPOC) agency Chief
- CWDA Executive Liaison, CWS/CMS and CWS/Web
- CDSS Program Manager CWS/CMS
- CDSS Program Manager CWS/Web
- Office of Systems Integration (OSI) M&O Manager, CWS/CMS
- OSI Project Director, CWS/Web

Non-voting members are:

- University of California at Berkeley (UCB) Representative
- Program Impact Advisory Committee (PIAC) Co-Chairs
- Technical Advisory Committee (TAC) Co-Chairs
- CWS/CMS Office Staff
- CWS/Web Project staff
- CDSS Program Staff

The CWS/CMS Oversight Committee provides strategic direction for the CWS/CMS, based on the input of members of the Committee and the advice of both the Program Impact Advisory Committee and the Technical Advisory Committee. The Committee's purpose and processes are fully described in its Charter. In general, the committee:

- Develops and updates the CWS/CMS Strategic Plan and Annual Plan.
- The CWS/CMS Oversight Committee provides policy direction for the development and implementation of CWS/CMS so that the system supports the achievement of statutory Child Welfare Service (CWS) program goals.
- The CWS/CMS Oversight Committee is responsible for strategic policy decisions related to the system and its operation, including the annual application maintenance budget.
- Monitors the system and evaluates the consistency of the system with program goals communicated via the CWS Strategic Plan.
- Monitors CWS/CMS progress toward policy and program objectives;
- Sets priorities for the CWS/CMS change control process.
- Sponsors the Technical Advisory Committee.
- Sponsors the Program Advisory Committee.
- Communicates CWS/CMS strategic business direction to CWS/CMS customers, and other OSC participants.
- Defines communication processes for PIAC and TAC and for their interaction with Regional Committees.

The CWS/CMS Oversight Committee meets monthly except for July, October and December.

4.2 CWS/CMS Program Impact Advisory Committee (PIAC)

The CWS/CMS Program Impact Advisory Committee is an advisory body to the OSC with a primary purpose to aid in the analysis and prioritization of proposed changes to the automated case management system by providing statewide perspective and guidance where program, policy and practice issues arise. The committee membership consists of the following members:

- County Representatives:
  - Each of the five (5) CWDA regions shall be represented – whether by a Children's Committee representative, or by a User Group representative.
  - Los Angeles County Representative
  - 20 Small County Representative
  - Chief Probation Officers of California (CPOC) Representative
  - CWDA Executive Liaison, CWS/CMS & CWS/Web
- CDSS Representatives
  - Chiefs, Operations, Program and Policy Bureaus
  - Chief, CDSS CWS/CMS Support Bureau
  - Data Analysis Bureau
- Other members include:
  - CWS/CMS Program Manager
  - CWS/Web Program Manager
  - Other CWS/CMS Office staff
  - Other CWS/Web Project staff
  - Technical Advisory Committee (TAC) representative

Subject Matter Experts (SMEs) are to be included as appropriate.

The committee's purpose and processes are fully described in its Charter. In general, the committee will:

- Advise and consult, from a customer perspective, with OSC on systems issues related to program, policy and practice issues.
- Assist with the early identification of policy and practice issues as they relate to system change, and refer said issues to CDSS and the CWDA Children's Committee for clarification. Advise on outstanding policy and practice issues when appropriate.
- Advise on systems related program, policy and practice issues including those resulting from System Change Requests (SCR), release content, forms, and CWS/Web development. This includes the prioritization of SCRs to make recommendations to the Oversight Committee for releases.
- Facilitate communication amongst OSC and Regional User Groups on system issues impacting program, policy and practice.
- Serve as a working group on systems-related policy and program issues including those related to System Change Requests (SCR), training support, application maintenance, release content and forms.

- Recommend changes for inclusion in system change releases by initiating and promoting SCRs, based on committee findings and consensus.
- Provide subject-matter experts for the entire release process and for CWS/CMS development.
- Coordinate with Release Sponsors appointed by the Children's Operations Committee to act as point of contact for policy issues for each major release.
- Monitor system design changes in releases.
- Provide guidance on policy and practice for data entry to improve data consistency and quality. This includes, but is not limited to data entry workarounds identified pending releases.
- Review the solutions identified in All County Letters (ACL) and All County Information Notices (ACIN) drafted to address automation issues. Provide feedback prior to finalization of ACL and/or ACIN.
- Conduct annual review of legislation and all mandates, including federal and state, to identify potential impact on the CWS/CMS application

The CWS/CMS Program Impact Advisory Committee will meet bi-monthly and at the request of the CWS/CMS Oversight Committee.

Meetings are co-chaired by the CFSD Assistant Deputy Director and a county representative selected by CWDA.

4.3 CWS/CMS Technical Advisory Committee (TAC)

The primary purpose of the Technical Advisory Committee (TAC) is to provide statewide user perspective on CWS/CMS technical issues identified at the state or county level. OSC further charters the TAC to be a communication channel between the Oversight Committee and the CWS/CMS Regional User Groups, and is expected to add necessary statewide perspective and context to issues and processes stemming from both. The committee consists of voting members as follows:

- 2 representatives from each Regional Users Group; preferably one to be a manager or supervisor.
- 1 representative from Los Angeles County
- 1 representative for the 20 small counties
- 1 county probation representative
- CWDA Representative
- CWS/CMS Maintenance and Operations Manager
- CDSS technical representative
- Prime Vendor and State Data Center representatives

The committee's purpose and processes are fully described in its Charter. In general, the committee:

- Advises and consults with OSC on technical issues from a customer perspective.
- Facilitates communication amongst OSC and Regional User Groups on issues of technical direction as well as tactical and strategic technical solutions.
- Serves as a working group to assist planning, design and implementation of CWS/CMS technical solutions.
- Works with CWS/CMS Office staff to develop proposed technical policy.
- Provides a liaison to the Program Impact Advisory Committee (PIAC) to advise and consult on technical issues from a user perspective.
- Recommends changes for inclusion in system change releases by initiating and promoting SCRs, based on committee findings and consensus.
- Provides a working group of subject matter experts to provide a technical perspective for the entire release process, any CWS/CMS initiatives, and for CWS/Web development.

The CWS/CMS Technical Advisory Committee meets monthly and at the request of the CWS/CMS Oversight Committee.

The TAC is jointly chaired by:

- A county representative selected by CWDA, and
- The CWS/CMS Maintenance and Operations Manager

5.0 CWS/CMS County Governance Structure

The governance structure described in section 5.0 consists of five regional users groups that are distinguished by their county-only constituency.

5.1 CWS/CMS Regional User's Group

There are five CWS Regional User Groups that encompass all 58 of California's counties. These are:

- Bay Area Regional Committee
- Northern Regional Committee
- Mountain Valley Regional Committee
- Central Valley Regional Committee
- Southern Regional Committee

The Regional User Group meetings are attended by all classifications of users from clerical to child welfare administrators. The meetings generally include the county Single Points of Contact (SPOC) who are often the communication link between the counties and the CWS/CMS Office. The groups regularly invite status and informational updates from the CWS/CMS Office and the primary vendor.

The purpose of the meetings is to gain information about CWS/CMS to make it as effective and useful a tool as possible in the individual counties. Updates about the status of the CWS/CMS Office projects as well as technical and system-related policy issues related to CWS/CMS operations and CDSS program are expected. The regional meetings communicate their technical and program impact recommendations to OSC for their consideration.

The Regional User Groups meet monthly.

6.0 Communication Links Amongst Blended and County Governance Structures

All members of the CWS/CMS Oversight Committee, Technical Advisory Committee, Program Impact Advisory Committee, and the Regional Users Groups have responsibility for effective communication consistent with the CWS/CMS Strategic Plan Strategy 9*: "Improve communication with users, keeping them involved, informed, and prepared".* This communication is supplemental to formal communication from CDSS and the CWS/CMS Office staff.

6.1 CWS/CMS Oversight Committee

The CWS/CMS Oversight Committee will regularly seek input from the TAC, PIAC, and Regional Users Groups and communicate policy direction set by the committee.

6.1.1 Regional representatives to Oversight Committee will regularly communicate with the Regional Users Group to convey system direction set by OSC and to learn of issues that require OSC attention.

6.1.2 County representatives will serve as liaisons with the CWDA Childrens Operations Committee and the CWDA Childrens Committee by regularly updating these committees on key system direction and issues while seeking input on county needs.

6.1.3 The PIAC co-chair, serving on the OSC, will act as a liaison with the PIAC. The co-chair will regularly communicate system direction to the PIAC and obtain input on programmatic issues for consideration by OSC.

6.1.4 The TAC co-chair, serving on the OSC, will act as a liaison with the TAC. The co-chair will regularly communicate system direction to the TAC and obtain input on technical issues for consideration by OSC.

6.1.5 The 20 small county representative will act as liaison with the CWDA 20 Small Committee, communicate key system direction to them, and solicit input on CWS/CMS issues.

6.1.6 The Los Angeles County representative will act as a liaison with Los Angeles County management, program, and technical staff, communicating key system direction and soliciting input.

6.1.7 The County Welfare Director representative, supported by the CWDA Executive Liaison, CWS/CMS & CWS/Web, will act as liaison with the CWDA Information Technology Committee, CWDA Executive Committee, and CWDA Board of Directors.

6.1.8 The CDSS Deputy Director for Children and Family Services Division will take responsibility for communication with the CDSS management and program staff.

6.2 CWS/CMS Program Impact Advisory Committee

Members of the CWS/CMS Program Impact Advisory Committee will seek input from the CWS/CMS Regional Users Groups and CWDA Regional Childrens Committees.

6.3 CWS/CMS Technical Advisory Committee

Members of the CWS/CMS Technical Advisory Committee will seek input from the CWS/CMS Regional Users Groups and from counties whose technical staff are not directly represented on the TAC.

6.4 CWS/CMS Regional Users Groups

CWS/CMS Regional Users Groups chairs will establish a link with their corresponding CWDA Regional Childrens Committee. They will share system highlights, solicit input on needed system change, and seek endorsement of specific system change requests.

7.0 Escalation Process

This escalation process will be used to ensure critical issues are raised soon enough to prevent undesirable impacts to the CWS/CMS, the sponsor, or to stakeholders; and to ensure the appropriate parties are informed and involved in critical decision-making. The CWS/CMS Office, sponsor and stakeholders shall always strive to make decisions and address issues at the lowest possible level, using established processes.

The escalation process is invoked when a manager in one of the governance structures determines that an issue requires escalation for resolution. The disputed issue must be reported to the CWS/CMS M&O Manager. The M&O Manager will meet in person or electronically with the CDSS CWS/CMS Support Branch Bureau Chief and the CWDA Executive Liaison, CWS/CMS & CWS/Web, in order to resolve the issue.

In the event the CWS/CMS M&O Manager, CDSS CWS/CMS Support Branch Bureau Chief and the CWDA Executive Liaison are unable to resolve the issue, they will identify the appropriate escalation path and determine the urgency of the issue.

The following are appropriate to escalate to the Oversight Committee.

- Program Issues
- Policy Issues
- Release Issues

The following are appropriate to escalate to the CWS/CMS – CDSS Management Committee:

- Resource Issues
- Budget Issues
- Schedule Issues
- Control Agency Issues

If resolution can be delayed until the next scheduled Oversight Committee meeting without negative impact to the CWS/CMS or to state and county programs, and the associated schedule or budget, the OSC will be asked to address the issue. If timing is critical, the OSC co-chairs will coordinate with committee members to resolve the issue on an emergency basis.

Issues with anticipated negative impacts to CWS/CMS resource management, budgets or schedules will be referred to the following meeting of the CWS/CMS – CDSS Management Committee. If resolution cannot be delayed, the CWS/CMS M&O Manager, CDSS CWS/CMS Support Branch Bureau Chief and the CWDA Executive Liaison will ask the committee to convene on an emergency basis.

Whether the issue is presented to the Oversight Committee or to the CWS/CMS-CDSS Management Committee that body will:

- Review escalated issues and solution alternatives
- Approve or deny recommended resolutions
- Commit appropriate resources to support the resolution
- Provide expedited response and direction on issues, which may impact the scope or schedule of CWS/CMS activities.

Examples of Types of Escalation

- Escalation will occur if at any time the necessary activities either are not being completed or appear that they will not be completed timely, resulting in a risk to agreed upon target dates.
- Escalation will occur if at any time it appears either requirements are not being met or cannot be met or those requirements may be contrary to state or county expectations with regard to quality of the system and its subsequent impact on state programs.
- Escalation will occur if at any time an issue is raised for which a decision is needed in order to continue progress on the completion of the activities at issue.
- Escalation will occur if the escalating governance structures are not able to reach concurrence on an issue where concurrence is needed to proceed.

Examples of the types of issues that might be escalated include the following:

- Requirements
- Technical System/Automation
- Schedule
- Adverse Program Impacts
- Implementation/Testing
- Go/No-Go recommendations
- Workarounds
- Stakeholder Disagreements
- Governance
- Legal
- Funding

SIMM 20C30C, Rev. 08/2010

PROPOSED ALTERNATIVE: New System Buy/Build Approach

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	31.0	3,289,316	33.0	3,502,642	42.0	4,469,978	52.5	5,641,459	14.0	1,507,988	0.0	0	172.5	18,411,385
Hardware Purchase		0		0		1,209,000		744,000		186,000		0		2,139,000
Software Purchase/License		0		0		37,854,340		8,116,175		2,029,044		0		47,999,559
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		0		10,051,096		11,244,846		2,929,962		0		24,225,904
Project Management		0		0		0		0		0		0		0
Project Oversight		127,842		127,842		127,842		127,842		31,961		0		543,330
IV&V Services		317,520		425,376		788,256		788,256		52,416		0		2,371,824
Other Contract Services		4,260,996		5,569,504		10,305,929		14,710,731		7,563,165		0		42,410,325
TOTAL Contract Services		4,706,358		6,122,722		21,273,124		26,871,676		10,577,503		0		69,551,382
Data Center Services		247,955		247,955		734,360		734,360		183,590		0		2,148,220
Agency Facilities		392,000		1,171,930		348,140		343,140		85,785		0		2,340,995
Other		1,666,417		22,604,154		62,665,150		79,482,339		42,083,130		0		208,501,190
Total One-time IT Costs	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**14.0**	**56,653,040**	**0.0**	**0**	**172.5**	**351,091,731**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	30.0	3,388,470	40.0	4,517,960	70.0	7,906,431
Hardware Lease/Maintenance		0		0		0		0		558,000		744,000		1,302,000
Software Maintenance/Licenses		0		0		0		0		6,087,131		8,116,175		14,203,306
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		5,248,658		6,951,544		12,200,201
Data Center Services		0		0		0		0		559,770		746,360		1,306,130
Agency Facilities		0		0		0		0		257,355		343,140		600,495
Other		0		0		0		0		1,679,475		2,450,255		4,129,730
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**30.0**	**17,778,859**	**40.0**	**23,869,434**	**70.0**	**41,648,293**
Total Project Costs	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	47.5	4,423,339	38.5	3,324,207	26.5	1,811,219	5.6	452,805	0.0	0	167.6	14,677,523
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		19,643,219		0		325,314,638
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**47.5**	**80,410,256**	**38.5**	**80,143,957**	**26.5**	**79,493,470**	**5.6**	**20,096,024**	**0.0**	**0**	**167.6**	**339,992,161**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	15.3	1,416,593	16.0	1,501,241	83.3	7,568,432
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**15.3**	**85,862,662**	**16.0**	**85,947,310**	**83.3**	**514,244,846**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**60.5**	**166,018,975**	**51.5**	**165,752,676**	**39.5**	**165,102,189**	**20.9**	**105,958,686**	**16.0**	**85,947,310**	**250.9**	**854,237,006**
TOTAL ALTERNATIVE COSTS	**93.5**	**175,759,219**	**93.5**	**199,668,379**	**93.5**	**294,306,767**	**92.0**	**287,035,337**	**64.9**	**180,390,585**	**56.0**	**109,816,743**	**493.4**	**1,246,977,030**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information Technology Costs														
Staff (salaries & benefits)	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	**297.0**	**27,995,718**
Hardware Lease/Maintenance		1,442,880		1,442,880		1,442,880		1,442,880		1,442,880		1,442,880		**8,657,280**
Software Maintenance/Licenses		2,586,908		2,586,908		2,586,908		2,586,908		2,586,908		2,586,908		**15,521,448**
Contract Services		33,327,048		34,131,464		34,964,297		35,826,798		36,717,423		37,641,179		**212,608,209**
Data Center Services		35,986,634		35,986,634		35,986,634		35,986,634		35,986,634		35,986,634		**215,919,804**
Agency Facilities		0		0		0		0		0		0		**0**
Other		1,839,031		1,839,031		1,839,031		1,839,031		1,839,031		1,839,031		**11,034,186**
Total IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**49.5**	**83,238,829**	**49.5**	**84,162,585**	**297.0**	**491,736,645**
Continuing Program Costs:														
Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	**78.0**	**6,975,897**
Other		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		**506,676,414**
Total Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
TOTAL EXISTING SYSTEM COSTS	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**62.5**	**168,847,548**	**62.5**	**169,771,304**	**375.0**	**1,005,388,956**

SIMM 20C30C, Rev. 08/2010

EXISTING SYSTEM/BASELINE COST WORKSHEET

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	Subtotal		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information Technology Costs												
Staff (salaries & benefits)	297.0	27,995,718	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	**495.0**	**46,659,530**
Hardware Lease/Maintenance		8,657,280		1,442,880		1,442,880		1,442,880		1,442,880		**14,428,800**
Software Maintenance/Licenses		15,521,448		2,586,908		2,586,908		2,586,908		2,586,908		**25,869,080**
Contract Services		212,608,209		35,027,453		35,027,453		35,027,453		35,027,453		**352,718,021**
Data Center Services		215,919,804		35,986,634		35,986,634		35,986,634		35,986,634		**359,866,340**
Agency Facilities		0		0		0		0		0		**0**
Other		11,034,186		1,839,031		1,839,031		1,839,031		1,839,031		**18,390,310**
Total IT Costs	**297.0**	**491,736,645**	**49.5**	**81,548,859**	**49.5**	**81,548,859**	**49.5**	**81,548,859**	**49.5**	**81,548,859**	**495.0**	**817,932,081**
Continuing Program Costs:												
Staff	78.0	6,975,897	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	**130.0**	**11,626,496**
Other		506,676,414		84,446,069		84,446,069		84,446,069		84,446,069		**844,460,690**
Total Program Costs	**78.0**	**513,652,311**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**130.0**	**856,087,186**
TOTAL EXISTING SYSTEM COSTS	**375.0**	**1,005,388,956**	**62.5**	**167,157,578**	**62.5**	**167,157,578**	**62.5**	**167,157,578**	**62.5**	**167,157,578**	**625.0**	**1,674,019,267**

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PROPOSED ALTERNATIVE: **New System Buy/Build Approach**

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	Subtotal		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	172.5	18,411,385		0		0		0		0	172.5	18,411,385
Hardware Purchase		2,139,000		0		0		0		0		2,139,000
Software Purchase/License		47,999,559		0		0		0		0		47,999,559
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		24,225,904		0		0		0		0		24,225,904
Project Management		0		0		0		0		0		0
Project Oversight		543,330		0		0		0		0		543,330
IV&V Services		2,371,824		0		0		0		0		2,371,824
Other Contract Services		42,410,325		0		0		0		0		42,410,325
TOTAL Contract Services		69,551,382		0		0		0		0		69,551,382
Data Center Services		2,148,220		0		0		0		0		2,148,220
Agency Facilities		2,340,995		0		0		0		0		2,340,995
Other		208,501,190		0		0		0		0		208,501,190
Total One-time IT Costs	**172.5**	**351,091,731**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**172.5**	**351,091,731**
Continuing IT Project Costs												
Staff (Salaries & Benefits)	70.0	7,906,431	40.0	4,517,960	40.0	4,517,960	40.0	4,517,960	40.0	4,517,960	230.0	25,978,272
Hardware Lease/Maintenance		1,302,000		744,000		1,209,000		744,000		744,000		4,743,000
Software Maintenance/Licenses		14,203,306		8,116,175		8,141,675		8,116,175		8,116,175		46,693,506
Telecommunications		0		0		0		0		0		0
Contract Services		12,200,201		6,951,544		6,951,544		6,951,544		6,951,544		40,006,376
Data Center Services		1,306,130		746,360		746,360		746,360		746,360		4,291,570
Agency Facilities		600,495		343,140		343,140		343,140		343,140		1,973,055
Other		4,129,730		2,460,485		2,461,415		2,495,409		2,450,255		13,997,293
Total Continuing IT Costs	**70.0**	**41,648,293**	**40.0**	**23,879,664**	**40.0**	**24,371,094**	**40.0**	**23,914,588**	**40.0**	**23,869,434**	**230.0**	**137,683,072**
Total Project Costs	**242.5**	**392,740,024**	**40.0**	**23,879,664**	**40.0**	**24,371,094**	**40.0**	**23,914,588**	**40.0**	**23,869,434**	**402.5**	**488,774,803**
Continuing Existing Costs												
Information Technology Staff	167.6	14,677,523	0.0	0	0.0	0	0.0	0	0.0	0	167.6	14,677,523
Other IT Costs		325,314,638		0		0		0		0		325,314,638
Total Continuing Existing IT Costs	**167.6**	**339,992,161**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**167.6**	**339,992,161**
Program Staff	83.3	7,568,432	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	147.3	13,573,394
Other Program Costs		506,676,414		84,446,069		84,446,069		84,446,069		84,446,069		844,460,690
Total Continuing Existing Program Costs	**83.3**	**514,244,846**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**147.3**	**858,034,084**
Total Continuing Existing Costs	**250.9**	**854,237,006**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**314.9**	**1,198,026,245**
TOTAL ALTERNATIVE COSTS	**493.4**	**1,246,977,030**	**56.0**	**109,826,973**	**56.0**	**110,318,403**	**56.0**	**109,861,897**	**56.0**	**109,816,743**	**717.4**	**1,686,801,048**
INCREASED REVENUES		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ALTERNATIVE #1: CWS/CMS Upgrade

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	38.0	3,768,783	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	45.0	4,524,092	263.0	26,389,243
Hardware Purchase		25,600		54,400		0		0		25,600		25,600		131,200
Software Purchase/License		140,000		187,600		187,600		187,600		187,600		187,600		1,078,000
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		15,397,033		14,773,080		20,587,080		14,773,080		14,773,080		80,303,353
Project Management		582,912		582,912		582,912		582,912		582,912		582,912		3,497,472
Project Oversight		549,120		549,120		549,120		549,120		549,120		549,120		3,294,720
IV&V Services		329,472		768,768		658,944		658,944		658,944		658,944		3,734,016
Other Contract Services		6,669,714		6,204,989		5,544,545		19,814,474		5,049,434		5,049,434		48,332,588
TOTAL Contract Services		8,131,218		23,502,822		22,108,601		42,192,530		21,613,490		21,613,490		139,162,149
Data Center Services		52,308		52,308		52,308		802,308		52,308		52,308		1,063,848
Agency Facilities		0		0		0		0		0		0		0
Other		4,045,762		28,118,943		75,782,880		96,518,447		51,857,542		3,897,956		260,221,532
Total One-time IT Costs	**38.0**	**16,163,671**	**45.0**	**56,440,165**	**45.0**	**102,655,481**	**45.0**	**144,224,977**	**45.0**	**78,260,632**	**45.0**	**30,301,046**	**263.0**	**428,045,972**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	19.0	1,957,097	19.0	1,957,097	38.0	3,914,194
Hardware Lease/Maintenance		0		0		0		0		41,300		41,300		82,600
Software Maintenance/Licenses		0		0		0		0		165,200		165,200		330,400
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		49,988,989		49,988,989		99,977,978
Data Center Services		0		0		0		0		802,308		802,308		1,604,616
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		5,353,424		5,449,424		10,802,848
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**19.0**	**58,308,318**	**19.0**	**58,404,318**	**38.0**	**116,712,636**
Total Project Costs	**38.0**	**16,163,671**	**45.0**	**56,440,165**	**45.0**	**102,655,481**	**45.0**	**144,224,977**	**64.0**	**136,568,950**	**64.0**	**88,705,364**	**301.0**	**544,758,608**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	0.0	0	198.0	18,663,812
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		7,000,000		0		312,671,419
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**0.0**	**7,000,000**	**0.0**	**0**	**198.0**	**331,335,231**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	78.0	6,975,897
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**13.0**	**92,608,719**	**13.0**	**85,608,719**	**276.0**	**844,987,542**
TOTAL ALTERNATIVE COSTS	**100.5**	**181,620,843**	**107.5**	**222,701,754**	**107.5**	**269,749,902**	**107.5**	**312,181,899**	**77.0**	**229,177,668**	**77.0**	**174,314,083**	**577.0**	**1,389,746,150**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #1:** CWS/CMS Upgrade

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	263.0	26,389,243	45.0	4,524,092	0.0	0	0.0	0	0.0	0	308.0	30,913,335
Hardware Purchase		131,200		0		0		0		0		131,200
Software Purchase/License		1,078,000		187,600		0		0		0		1,265,600
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		80,303,353		14,773,080		0		0		0		95,076,433
Project Management		3,497,472		582,912		0		0		0		4,080,384
Project Oversight		3,294,720		549,120		0		0		0		3,843,840
IV&V Services		3,734,016		658,944		0		0		0		4,392,960
Other Contract Services		48,332,588		5,049,434		0		0		0		53,382,022
TOTAL Contract Services		139,162,149		21,613,490		0		0		0		160,775,639
Data Center Services		1,063,848		52,308		0		0		0		1,116,156
Agency Facilities		0		0		0		0		0		0
Other		260,221,532		3,897,956		0		0		0		264,119,488
Total One-time IT Costs	**263.0**	**428,045,972**	**45.0**	**30,275,446**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**308.0**	**458,321,418**
Continuing IT Project Costs												
Staff (Salaries & Benefits)	38.0	3,914,194	19.0	1,957,097	50.0	5,138,960	50.0	5,138,960	50.0	5,138,960	207.0	21,288,171
Hardware Lease/Maintenance		82,600		41,300		56,000		56,000		56,000		291,900
Software Maintenance/Licenses		330,400		165,200		224,000		224,000		224,000		1,167,600
Telecommunications		0		0		0		0		0		0
Contract Services		99,977,978		49,988,989		55,278,989		49,988,989		49,988,989		305,223,934
Data Center Services		1,604,616		802,308		802,308		802,308		802,308		4,813,848
Agency Facilities		0		0		0		0		0		0
Other		10,802,848		5,449,424		7,081,388		7,081,388		7,081,388		37,496,436
Total Continuing IT Costs	**38.0**	**116,712,636**	**19.0**	**58,404,318**	**50.0**	**68,581,645**	**50.0**	**63,291,645**	**50.0**	**63,291,645**	**207.0**	**370,281,889**
Total Project Costs	**301.0**	**544,758,608**	**64.0**	**88,679,764**	**50.0**	**68,581,645**	**50.0**	**63,291,645**	**50.0**	**63,291,645**	**515.0**	**828,603,307**
Continuing Existing Costs												
Information Technology Staff	198.0	18,663,812	0.0	0	0.0	0	0.0	0	0.0	0	198.0	18,663,812
Other IT Costs		312,671,419		0		0		0		0		312,671,419
Total Continuing Existing IT Costs	**198.0**	**331,335,231**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**198.0**	**331,335,231**
Program Staff	78.0	6,975,897	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	142.0	12,980,860
Other Program Costs		506,676,414		84,446,069		84,446,069		84,446,069		84,446,069		844,460,690
Total Continuing Existing Program Costs	**78.0**	**513,652,311**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**142.0**	**857,441,550**
Total Continuing Existing Costs	**276.0**	**844,987,542**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**340.0**	**1,188,776,781**
TOTAL ALTERNATIVE COSTS	**577.0**	**1,389,746,150**	**80.0**	**174,627,074**	**66.0**	**154,528,955**	**66.0**	**149,238,955**	**66.0**	**149,238,955**	**855.0**	**2,017,380,088**
INCREASED REVENUES		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ALTERNATIVE #2: Re-Start CWS/Web

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	48.0	4,893,257	288.0	29,359,542
Hardware Purchase		25,600		54,400		0		25,600		25,600		54,400		185,600
Software Purchase/License		190,400		190,400		190,400		190,400		190,400		190,400		1,142,400
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		23,670,193		23,005,183		23,005,183		28,819,183		23,005,183		121,504,925
Project Management		595,200		595,200		595,200		595,200		595,200		595,200		3,571,200
Project Oversight		549,120		549,120		549,120		549,120		549,120		549,120		3,294,720
IV&V Services		768,768		658,944		658,944		658,944		658,944		658,944		4,063,488
Other Contract Services		7,554,264		6,543,820		5,883,376		5,388,264		20,153,304		5,388,264		50,911,293
TOTAL Contract Services		9,467,352		32,017,277		30,691,823		30,196,711		50,775,751		30,196,711		183,345,626
Data Center Services		52,308		52,308		52,308		52,308		802,308		52,308		1,063,848
Agency Facilities		0		0		0		0		0		0		0
Other		4,663,574		33,296,028		79,509,021		109,381,839		60,433,104		4,239,772		291,523,339
Total One-time IT Costs	**48.0**	**19,292,492**	**48.0**	**70,503,670**	**48.0**	**115,336,809**	**48.0**	**144,740,116**	**48.0**	**117,120,421**	**48.0**	**39,626,848**	**288.0**	**506,620,355**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	15.0	1,582,176	15.0	1,582,176
Hardware Lease/Maintenance		0		0		0		0		0		38,500		38,500
Software Maintenance/Licenses		0		0		0		0		0		154,000		154,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		0		35,478,149		35,478,149
Data Center Services		0		0		0		0		0		802,308		802,308
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		0		0		5,238,848		5,238,848
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**15.0**	**43,293,981**	**15.0**	**43,293,981**
Total Project Costs	**48.0**	**19,292,492**	**48.0**	**70,503,670**	**48.0**	**115,336,809**	**48.0**	**144,740,116**	**48.0**	**117,120,421**	**63.0**	**82,920,829**	**303.0**	**549,914,336**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	247.5	23,329,765
Other IT Costs		75,182,501		75,986,917		76,819,750		77,682,251		78,572,876		15,000,000		399,244,295
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**49.5**	**82,348,204**	**49.5**	**83,238,829**	**0.0**	**15,000,000**	**247.5**	**422,574,060**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	78.0	6,975,897
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**78.0**	**513,652,311**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**62.5**	**167,956,923**	**62.5**	**168,847,548**	**13.0**	**100,608,719**	**325.5**	**936,226,371**
TOTAL ALTERNATIVE COSTS	**110.5**	**184,749,664**	**110.5**	**236,765,259**	**110.5**	**282,431,230**	**110.5**	**312,697,038**	**110.5**	**285,967,968**	**76.0**	**183,529,548**	**628.5**	**1,486,140,708**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #2:** Re-Start CWS/Web

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	288.0	29,359,542	48.0	4,893,257	48.0	4,893,257	0.0	0	0.0	0	384.0	39,146,056
Hardware Purchase		185,600		0		0		0		0		185,600
Software Purchase/License		1,142,400		190,400		190,400		0		0		1,523,200
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		121,504,925		23,005,183		5,577,146		0		0		150,087,254
Project Management		3,571,200		595,200		297,600		0		0		4,464,000
Project Oversight		3,294,720		549,120		274,560		0		0		4,118,400
IV&V Services		4,063,488		658,944		329,472		0		0		5,051,904
Other Contract Services		50,911,293		5,388,264		3,436,799		0		0		59,736,357
TOTAL Contract Services		183,345,626		30,196,711		9,915,577		0		0		223,457,915
Data Center Services		1,063,848		52,308		52,308		0		0		1,168,464
Agency Facilities		0		0		0		0		0		0
Other		291,523,339		4,239,772		4,239,772		0		0		300,002,883
Total One-time IT Costs	**288.0**	**506,620,355**	**48.0**	**39,572,448**	**48.0**	**19,291,314**	**0.0**	**0**	**0.0**	**0**	**384.0**	**565,484,118**
Continuing IT Project Costs												
Staff (Salaries & Benefits)	15.0	1,582,176	15.0	1,582,176	15.0	1,582,176	50.0	5,138,960	50.0	5,138,960	145.0	15,024,448
Hardware Lease/Maintenance		38,500		38,500		38,500		56,000		56,000		227,500
Software Maintenance/Licenses		154,000		154,000		154,000		224,000		224,000		910,000
Telecommunications		0		0		0		0		0		0
Contract Services		35,478,149		35,375,149		35,375,149		40,665,149		40,665,149		187,558,745
Data Center Services		802,308		802,308		802,308		802,308		802,308		4,011,540
Agency Facilities		0		0		0		0		0		0
Other		5,238,848		5,238,848		5,238,848		7,081,388		7,081,388		29,879,320
Total Continuing IT Costs	**15.0**	**43,293,981**	**15.0**	**43,190,981**	**15.0**	**43,190,981**	**50.0**	**53,967,805**	**50.0**	**53,967,805**	**145.0**	**237,611,553**
Total Project Costs	**303.0**	**549,914,336**	**63.0**	**82,763,429**	**63.0**	**62,482,295**	**50.0**	**53,967,805**	**50.0**	**53,967,805**	**529.0**	**803,095,671**
Continuing Existing Costs												
Information Technology Staff	247.5	23,329,765	0.0	0	0.0	0	0.0	0	0.0	0	247.5	23,329,765
Other IT Costs		399,244,295		0		0		0		0		399,244,295
Total Continuing Existing IT Costs	**247.5**	**422,574,060**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**247.5**	**422,574,060**
Program Staff	78.0	6,975,897	13.0	1,162,650	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	139.0	12,642,269
Other Program Costs		506,676,414		84,446,069		84,446,069		84,446,069		84,446,069		844,460,690
Total Continuing Existing Program Costs	**78.0**	**513,652,311**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**139.0**	**857,102,959**
Total Continuing Existing Costs	**325.5**	**936,226,371**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**386.5**	**1,279,677,019**
TOTAL ALTERNATIVE COSTS	**628.5**	**1,486,140,708**	**76.0**	**168,372,148**	**79.0**	**148,429,604**	**66.0**	**139,915,115**	**66.0**	**139,915,115**	**915.5**	**2,082,772,689**
INCREASED REVENUES		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ALTERNATIVE #3: New System Custom Approach

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	38.0	3,768,783	49.0	4,859,570	49.0	4,859,570	49.0	4,859,570	49.0	4,859,570	0.0	0	234.0	23,207,063
Hardware Purchase		25,600		32,000		0		25,600		25,600		0		108,800
Software Purchase/License		196,000		252,000		252,000		252,000		252,000		0		1,204,000
Telecommunications		0		0		0		0		0		0		0
Contract Services														
Software Customization		0		13,831,450		33,476,900		27,662,900		27,662,900		0		102,634,150
Project Management		582,912		582,912		582,912		582,912		582,912		0		2,914,560
Project Oversight		549,120		549,120		549,120		549,120		549,120		0		2,745,600
IV&V Services		329,472		768,768		658,944		658,944		658,944		0		3,075,072
Other Contract Services		4,648,761		5,144,584		20,204,089		4,649,473		4,649,473		0		39,296,380
TOTAL Contract Services		6,110,265		20,876,834		55,471,965		34,103,349		34,103,349		0		150,665,762
Data Center Services		52,308		52,308		802,308		52,308		52,308		0		1,011,540
Agency Facilities		0		0		0		0		0		0		0
Other		4,469,378		27,895,219		75,559,156		99,645,200		60,193,311		0		267,762,265
Total One-time IT Costs	**38.0**	**14,622,335**	**49.0**	**53,967,931**	**49.0**	**136,945,000**	**49.0**	**138,938,027**	**49.0**	**99,486,138**	**0.0**	**0**	**234.0**	**443,959,430**
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	15.0	1,582,176	15.0	1,582,176	50.0	5,138,960	80.0	8,303,312
Hardware Lease/Maintenance		0		0		0		38,500		38,500		56,000		133,000
Software Maintenance/Licenses		0		0		0		154,000		154,000		224,000		532,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		35,478,149		35,378,149		35,478,149		106,334,447
Data Center Services		0		0		0		802,308		802,308		802,308		2,406,924
Agency Facilities		0		0		0		0		0		0		0
Other		0		0		0		5,142,848		5,142,848		6,985,388		17,271,084
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**15.0**	**43,197,981**	**15.0**	**43,097,981**	**50.0**	**48,684,805**	**80.0**	**134,980,767**
Total Project Costs	**38.0**	**14,622,335**	**49.0**	**53,967,931**	**49.0**	**136,945,000**	**64.0**	**182,136,008**	**64.0**	**142,584,119**	**50.0**	**48,684,805**	**314.0**	**578,940,197**
Continuing Existing Costs														
Information Technology Staff	49.5	4,665,953	49.5	4,665,953	49.5	4,665,953	0.0	0	0.0	0	0.0	0	148.5	13,997,859
Other IT Costs		75,182,501		75,986,917		76,819,750		7,000,000		0		0		234,989,168
Total Continuing Existing IT Costs	**49.5**	**79,848,454**	**49.5**	**80,652,870**	**49.5**	**81,485,703**	**0.0**	**7,000,000**	**0.0**	**0**	**0.0**	**0**	**148.5**	**248,987,027**
Program Staff	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	13.0	1,162,650	16.0	1,501,241	81.0	7,314,488
Other Program Costs		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		84,446,069		506,676,414
Total Continuing Existing Program Costs	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**81.0**	**513,990,902**
Total Continuing Existing Costs	**62.5**	**165,457,173**	**62.5**	**166,261,589**	**62.5**	**167,094,422**	**13.0**	**92,608,719**	**13.0**	**85,608,719**	**16.0**	**85,947,310**	**229.5**	**762,977,929**
TOTAL ALTERNATIVE COSTS	**100.5**	**180,079,507**	**111.5**	**220,229,520**	**111.5**	**304,039,421**	**77.0**	**274,744,727**	**77.0**	**228,192,838**	**66.0**	**134,632,115**	**543.5**	**1,341,918,127**
INCREASED REVENUES		0		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010 **ALTERNATIVE #3:** New System Custom Approach

Date Prepared: 10/1/12

Department: California Department of Social Services

All Costs Should be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs												
Staff (Salaries & Benefits)	234.0	29,359,542	0.0	0	0.0	0	0.0	0	0.0	0	234.0	29,359,542
Hardware Purchase		108,800		0		0		0		0		108,800
Software Purchase/License		1,204,000		0		0		0		0		1,204,000
Telecommunications		0		0		0		0		0		0
Contract Services												
Software Customization		102,634,150		0		0		0		0		102,634,150
Project Management		2,914,560		0		0		0		0		2,914,560
Project Oversight		2,745,600		0		0		0		0		2,745,600
IV&V Services		3,075,072		0		0		0		0		3,075,072
Other Contract Services		39,296,380		0		0		0		0		39,296,380
TOTAL Contract Services		150,665,762		0		0		0		0		150,665,762
Data Center Services		1,011,540		0		0		0		0		1,011,540
Agency Facilities		0		0		0		0		0		0
Other		267,762,265		0		0		0		0		267,762,265
Total One-time IT Costs	**234.0**	**443,959,430**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**234.0**	**443,959,430**
Continuing IT Project Costs												
Staff (Salaries & Benefits)	80.0	8,303,312	50.0	5,138,960	50.0	5,138,960	50.0	5,138,960	50.0	5,138,960	280.0	28,859,152
Hardware Lease/Maintenance		133,000		56,000		56,000		56,000		56,000		357,000
Software Maintenance/Licenses		532,000		224,000		224,000		224,000		224,000		1,428,000
Telecommunications		0		0		0		0		0		0
Contract Services		106,334,447		40,768,149		35,478,149		35,478,149		35,478,149		253,537,043
Data Center Services		2,406,924		802,308		802,308		802,308		802,308		5,616,156
Agency Facilities		0		0		0		0		0		0
Other		17,271,084		6,985,388		6,985,388		6,985,388		6,985,388		45,212,636
Total Continuing IT Costs	**80.0**	**134,980,767**	**50.0**	**53,974,805**	**50.0**	**48,684,805**	**50.0**	**48,684,805**	**50.0**	**48,684,805**	**280.0**	**335,009,987**
Total Project Costs	**314.0**	**578,940,197**	**50.0**	**53,974,805**	**50.0**	**48,684,805**	**50.0**	**48,684,805**	**50.0**	**48,684,805**	**514.0**	**778,969,417**
Continuing Existing Costs												
Information Technology Staff	148.5	13,997,859	0.0	0	0.0	0	0.0	0	0.0	0	148.5	13,997,859
Other IT Costs		234,989,168		0		0		0		0		234,989,168
Total Continuing Existing IT Costs	**148.5**	**248,987,027**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**148.5**	**248,987,027**
Program Staff	81.0	7,314,488	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	16.0	1,501,241	145.0	13,319,451
Other Program Costs		506,676,414		84,446,069		84,446,069		84,446,069		84,446,069		844,460,690
Total Continuing Existing Program Costs	**81.0**	**513,990,902**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**145.0**	**857,780,141**
Total Continuing Existing Costs	**229.5**	**762,977,929**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**16.0**	**85,947,310**	**293.5**	**1,106,767,168**
TOTAL ALTERNATIVE COSTS	**543.5**	**1,341,918,127**	**66.0**	**139,922,115**	**66.0**	**134,632,115**	**66.0**	**134,632,115**	**66.0**	**134,632,115**	**807.5**	**1,885,736,585**
INCREASED REVENUES		0		0		0		0		0		**0**

SIMM 20C30C, Rev. 08/2010

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 10/1/12

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	49.5	79,848,454	49.5	80,652,870	49.5	81,485,703	49.5	82,348,204	49.5	83,238,829	49.5	84,162,585	297.0	491,736,645
Total Program Costs	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	78.0	513,652,311
Total Existing System Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	62.5	168,847,548	62.5	169,771,304	375.0	1,005,388,956
PROPOSED ALTERNATIVE	**New System Buy/Build Approach**													
Total Project Costs	31.0	10,302,046	33.0	33,649,404	42.0	128,554,092	52.5	121,933,149	44.0	74,431,899	40.0	23,869,434	242.5	392,740,024
Total Cont. Exist. Costs	62.5	165,457,173	60.5	166,018,975	51.5	165,752,676	39.5	165,102,189	20.9	105,958,686	16.0	85,947,310	250.9	854,237,006
Total Alternative Costs	93.5	175,759,219	93.5	199,668,379	93.5	294,306,767	92.0	287,035,337	64.9	180,390,585	56.0	109,816,743	493.4	1,246,977,030
COST SAVINGS/AVOIDANCES	(31.0)	(10,302,046)	(31.0)	(33,406,790)	(31.0)	(127,212,346)	(29.5)	(119,078,415)	(2.4)	(11,543,037)	6.5	59,954,560	(118.4)	(241,588,074)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(31.0)	(10,302,046)	(31.0)	(33,406,790)	(31.0)	(127,212,346)	(29.5)	(119,078,415)	(2.4)	(11,543,037)	6.5	59,954,560	(118.4)	(241,588,074)
Cum. Net (Cost) or Benefit	(31.0)	(10,302,046)	(62.0)	(43,708,836)	(93.0)	(170,921,182)	(122.5)	(289,999,597)	(124.9)	(301,542,634)	(118.4)	(241,588,074)		
ALTERNATIVE #1	**CWS/CMS Upgrade**													
Total Project Costs	38.0	16,163,671	45.0	56,440,165	45.0	102,655,481	45.0	144,224,977	64.0	136,568,950	64.0	88,705,364	301.0	544,758,608
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	13.0	92,608,719	13.0	85,608,719	276.0	844,987,542
Total Alternative Costs	100.5	181,620,843	107.5	222,701,754	107.5	269,749,902	107.5	312,181,899	77.0	229,177,668	77.0	174,314,083	577.0	1,389,746,150
COST SAVINGS/AVOIDANCES	(38.0)	(16,163,671)	(45.0)	(56,440,165)	(45.0)	(102,655,481)	(45.0)	(144,224,977)	(14.5)	(60,330,121)	(14.5)	(4,542,779)	(202.0)	(384,357,194)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(38.0)	(16,163,671)	(45.0)	(56,440,165)	(45.0)	(102,655,481)	(45.0)	(144,224,977)	(14.5)	(60,330,121)	(14.5)	(4,542,779)	(202.0)	(384,357,194)
Cum. Net (Cost) or Benefit	(38.0)	(16,163,671)	(83.0)	(72,603,836)	(128.0)	(175,259,317)	(173.0)	(319,484,294)	(187.5)	(379,814,415)	(202.0)	(384,357,194)		
ALTERNATIVE #2	**Re-Start CWS/Web**													
Total Project Costs	48.0	19,292,492	48.0	70,503,670	48.0	115,336,809	48.0	144,740,116	48.0	117,120,421	63.0	82,920,829	303.0	549,914,336
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	62.5	167,956,923	62.5	168,847,548	13.0	100,608,719	325.5	936,226,371
Total Alternative Costs	110.5	184,749,664	110.5	236,765,259	110.5	282,431,230	110.5	312,697,038	110.5	285,967,968	76.0	183,529,548	628.5	1,486,140,708
COST SAVINGS/AVOIDANCES	(48.0)	(19,292,492)	(48.0)	(70,503,670)	(48.0)	(115,336,809)	(48.0)	(144,740,116)	(48.0)	(117,120,421)	(13.5)	(13,758,244)	(253.5)	(480,751,751)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(48.0)	(19,292,492)	(48.0)	(70,503,670)	(48.0)	(115,336,809)	(48.0)	(144,740,116)	(48.0)	(117,120,421)	(13.5)	(13,758,244)	(253.5)	(480,751,751)
Cum. Net (Cost) or Benefit	(48.0)	(19,292,492)	(96.0)	(89,796,162)	(144.0)	(205,132,971)	(192.0)	(349,873,086)	(240.0)	(466,993,507)	(253.5)	(480,751,751)		
ALTERNATIVE #3	**New System Custom Approach**													
Total Project Costs	38.0	14,622,335	49.0	53,967,931	49.0	136,945,000	64.0	182,136,008	64.0	142,584,119	50.0	48,684,805	314.0	578,940,197
Total Cont. Exist. Costs	62.5	165,457,173	62.5	166,261,589	62.5	167,094,422	13.0	92,608,719	13.0	85,608,719	16.0	85,947,310	229.5	762,977,929
Total Alternative Costs	100.5	180,079,507	111.5	220,229,520	111.5	304,039,421	77.0	274,744,727	77.0	228,192,838	66.0	134,632,115	543.5	1,341,918,127
COST SAVINGS/AVOIDANCES	(38.0)	(14,622,335)	(49.0)	(53,967,931)	(49.0)	(136,945,000)	(14.5)	(106,787,804)	(14.5)	(59,345,290)	(3.5)	35,139,189	(168.5)	(336,529,170)
Increased Revenues		0		0		0		0		0		0		0
Net (Cost) or Benefit	(38.0)	(14,622,335)	(49.0)	(53,967,931)	(49.0)	(136,945,000)	(14.5)	(106,787,804)	(14.5)	(59,345,290)	(3.5)	35,139,189	(168.5)	(336,529,170)
Cum. Net (Cost) or Benefit	(38.0)	(14,622,335)	(87.0)	(68,590,266)	(136.0)	(205,535,265)	(150.5)	(312,323,069)	(165.0)	(371,668,359)	(168.5)	(336,529,170)		

SIMM 20C30C, Rev. 08/2010

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 10/1/12

Department: California Department of Social Services

All costs to be shown in whole (unrounded) dollars.

Project: Child Welfare Services New System

	SUBTOTAL		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM												
Total IT Costs	297.0	491,736,645	49.5	81,548,859	49.5	81,548,859	49.5	81,548,859	49.5	81,548,859	495.0	817,932,081
Total Program Costs	78.0	513,652,311	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	13.0	85,608,719	130.0	856,087,186
Total Existing System Costs	375.0	1,005,388,956	62.5	167,157,578	62.5	167,157,578	62.5	167,157,578	62.5	167,157,578	625.0	1,674,019,267
PROPOSED ALTERNATIVE	**New System Buy/Build Approach**											
Total Project Costs	242.5	392,740,024	40.0	23,879,664	40.0	24,371,094	40.0	23,914,588	40.0	23,869,434	402.5	488,774,803
Total Cont. Exist. Costs	250.9	854,237,006	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	314.9	1,198,026,245
Total Alternative Costs	493.4	1,246,977,030	56.0	109,826,973	56.0	110,318,403	56.0	109,861,897	56.0	109,816,743	717.4	1,686,801,048
COST SAVINGS/AVOIDANCES	(118.4)	(241,588,074)	6.5	57,330,604	6.5	56,839,174	6.5	57,295,680	6.5	57,340,834	(92.4)	(12,781,781)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(118.4)	(241,588,074)	6.5	57,330,604	6.5	56,839,174	6.5	57,295,680	6.5	57,340,834	(92.4)	(12,781,781)
Cum. Net (Cost) or Benefit	(118.4)	(241,588,074)	(111.9)	(184,257,470)	(105.4)	(127,418,295)	(98.9)	(70,122,615)	(92.4)	(12,781,781)	(92.4)	(12,781,781)
ALTERNATIVE #1	**CWS/CMS Upgrade**											
Total Project Costs	301.0	544,758,608	64.0	88,679,764	50.0	68,581,645	50.0	63,291,645	50.0	63,291,645	515.0	828,603,307
Total Cont. Exist. Costs	276.0	844,987,542	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	340.0	1,188,776,781
Total Alternative Costs	577.0	1,389,746,150	80.0	174,627,074	66.0	154,528,955	66.0	149,238,955	66.0	149,238,955	855.0	2,017,380,088
COST SAVINGS/AVOIDANCES	(202.0)	(384,357,194)	(17.5)	(7,469,496)	(3.5)	12,628,623	(3.5)	17,918,623	(3.5)	17,918,623	(230.0)	(343,360,821)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(202.0)	(384,357,194)	(17.5)	(7,469,496)	(3.5)	12,628,623	(3.5)	17,918,623	(3.5)	17,918,623	(230.0)	(343,360,821)
Cum. Net (Cost) or Benefit	(202.0)	(384,357,194)	(219.5)	(391,826,690)	(223.0)	(379,198,067)	(226.5)	(361,279,444)	(230.0)	(343,360,821)	(230.0)	(343,360,821)
ALTERNATIVE #2	**Re-Start CWS/Web**											
Total Project Costs	303.0	549,914,336	63.0	82,763,429	63.0	62,482,295	50.0	53,967,805	50.0	53,967,805	529.0	803,095,671
Total Cont. Exist. Costs	325.5	936,226,371	13.0	85,608,719	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	386.5	1,279,677,019
Total Alternative Costs	628.5	1,486,140,708	76.0	168,372,148	79.0	148,429,604	66.0	139,915,115	66.0	139,915,115	915.5	2,082,772,689
COST SAVINGS/AVOIDANCES	(253.5)	(480,751,751)	(13.5)	(1,214,570)	(16.5)	18,727,973	(3.5)	27,242,463	(3.5)	27,242,463	(290.5)	(408,753,423)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(253.5)	(480,751,751)	(13.5)	(1,214,570)	(16.5)	18,727,973	(3.5)	27,242,463	(3.5)	27,242,463	(290.5)	(408,753,423)
Cum. Net (Cost) or Benefit	(253.5)	(480,751,751)	(267.0)	(481,966,322)	(283.5)	(463,238,349)	(287.0)	(435,995,886)	(290.5)	(408,753,423)	(290.5)	(408,753,423)
ALTERNATIVE #3	**New System Custom Approach**											
Total Project Costs	314.0	578,940,197	50.0	53,974,805	50.0	48,684,805	50.0	48,684,805	50.0	48,684,805	514.0	778,969,417
Total Cont. Exist. Costs	229.5	762,977,929	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	16.0	85,947,310	293.5	1,106,767,168
Total Alternative Costs	543.5	1,341,918,127	66.0	139,922,115	66.0	134,632,115	66.0	134,632,115	66.0	134,632,115	807.5	1,885,736,585
COST SAVINGS/AVOIDANCES	(168.5)	(336,529,170)	(3.5)	27,235,463	(3.5)	32,525,463	(3.5)	32,525,463	(3.5)	32,525,463	(182.5)	(211,717,319)
Increased Revenues		0		0		0		0		0		0
Net (Cost) or Benefit	(168.5)	(336,529,170)	(3.5)	27,235,463	(3.5)	32,525,463	(3.5)	32,525,463	(3.5)	32,525,463	(182.5)	(211,717,319)
Cum. Net (Cost) or Benefit	(168.5)	(336,529,170)	(172.0)	(309,293,707)	(175.5)	(276,768,244)	(179.0)	(244,242,782)	(182.5)	(211,717,319)	(182.5)	(211,717,319)

SIMM 20C30C, Rev. 08/2010

PROJECT FUNDING PLAN

Department: California Department of Social Services

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
RESOURCES TO BE REDIRECTED														
Staff	13.0	1,557,153	13.0	1,557,153	13.0	1,557,153	13.0	1,557,153	3.3	389,288	0.0	0	**55.3**	**6,617,898**
Funds:														
Existing System		1,458,270		1,458,270		1,458,270		1,458,270		364,568		0		**6,197,649**
Other Fund Sources		0		0		0		0		0		0		**0**
TOTAL REDIRECTED RESOURCES	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**13.0**	**3,015,423**	**3.3**	**753,856**	**0.0**	**0**	**55.3**	**12,815,548**
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184	0.0	0	**117.3**	**338,276,183**
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859	40.0	23,869,434	**70.0**	**41,648,293**
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	**18.0**	**7,286,623**	**20.0**	**30,633,981**	**29.0**	**125,538,669**	**39.5**	**118,917,726**	**40.8**	**73,678,043**	**40.0**	**23,869,434**	**187.3**	**379,924,476**
TOTAL PROJECT FUNDING	**31.0**	**10,302,046**	**33.0**	**33,649,404**	**42.0**	**128,554,092**	**52.5**	**121,933,149**	**44.0**	**74,431,899**	**40.0**	**23,869,434**	**242.5**	**392,740,024**
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
Total Estimated Cost Savings	(31.0)	(10,302,046)	(33.0)	(33,649,404)	(42.0)	(128,554,092)	(52.5)	(121,933,149)	5.5	8,806,930	9.5	60,293,151	**(143.5)**	**(225,338,610)**

FUNDING SOURCE*														
General Fund	50%	5,151,023	50%	16,824,702	50%	64,277,046	50%	60,966,574	50%	37,215,949	50%	11,934,717	50%	196,370,012
Federal Fund	50%	5,151,023	50%	16,824,702	50%	64,277,046	50%	60,966,574	50%	37,215,949	50%	11,934,717	50%	196,370,012
Special Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	10,302,046	100%	33,649,404	100%	128,554,092	100%	121,933,149	100%	74,431,899	100%	23,869,434	100%	392,740,024

***Type:** If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

SIMM 20C30C, Rev. 08/2010

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

Department: California Department of Social Se

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19	
Annual Project Adjustments	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**
One-time Costs												
Previous Year's Baseline	0.0	0	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184
(A) Annual Augmentation /(Reduction)	**18.0**	**7,286,623**	**2.0**	**23,347,358**	**9.0**	**94,904,688**	**10.5**	**(6,620,943)**	**(28.8)**	**(63,018,542)**	**(10.8)**	**(55,899,184)**
(B) Total One-Time Budget Actions	18.0	7,286,623	20.0	30,633,981	29.0	125,538,669	39.5	118,917,726	10.8	55,899,184	0.0	0
Continuing Costs												
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859
(C) Annual Augmentation /(Reduction)	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**30.0**	**17,778,859**	**10.0**	**6,090,575**
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	0	30.0	17,778,859	40.0	23,869,434
Total Annual Project Budget Augmentation /(Reduction) [A + C]	**18.0**	**7,286,623**	**2.0**	**23,347,358**	**9.0**	**94,904,688**	**10.5**	**(6,620,943)**	**1.3**	**(45,239,683)**	**(0.8)**	**(49,808,609)**

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

Annual Savings/Revenue Adjustments

Cost Savings	(31.0)	(10,302,046)	(2.0)	(23,347,358)	(9.0)	(94,904,688)	(10.5)	6,620,943	58.0	130,740,079	4.0	51,486,221
Increased Program Revenues		0		0		0		0		0		0

SIMM 20C30C, Rev. 08/2010

PROJECT FUNDING PLAN

Department: California Department of Social Services

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/1/12

Project: Child Welfare Services New System

	SUBTOTALS		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	**242.5**	**392,740,024**	**40.0**	**23,879,664**	**40.0**	**24,371,094**	**40.0**	**23,914,588**	**40.0**	**23,869,434**	**402.5**	**488,774,803**
RESOURCES TO BE REDIRECTED												
Staff	55.3	6,617,898	0.0	0	0.0	0	0.0	0	0.0	0	**55.3**	**6,617,898**
Funds:												
Existing System		6,197,649		0		0		0		0		**6,197,649**
Other Fund Sources		0		0		0		0		0		**0**
TOTAL REDIRECTED RESOURCES	**55.3**	**12,815,548**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**55.3**	**12,815,548**
ADDITIONAL PROJECT FUNDING NEEDED												
One-Time Project Costs	117.3	338,276,183	0.0	0	0.0	0	0.0	0	0.0	0	**117.3**	**338,276,183**
Continuing Project Costs	70.0	41,648,293	40.0	23,879,664	40.0	24,371,094	40.0	23,914,588	40.0	23,869,434	**230.0**	**137,683,072**
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	**187.3**	**379,924,476**	**40.0**	**23,879,664**	**40.0**	**24,371,094**	**40.0**	**23,914,588**	**40.0**	**23,869,434**	**347.3**	**475,959,255**
TOTAL PROJECT FUNDING	**242.5**	**392,740,024**	**40.0**	**23,879,664**	**40.0**	**24,371,094**	**40.0**	**23,914,588**	**40.0**	**23,869,434**	**402.5**	**488,774,803**
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**
Total Estimated Cost Savings	(143.5)	(225,338,610)	9.5	57,669,195	9.5	57,177,765	9.5	57,634,271	9.5	57,679,425	**(105.5)**	**4,822,047**
FUNDING SOURCE*												
General Fund	50%	196,370,012	50%	11,939,832	50%	12,185,547	50%	11,957,294	50%	11,934,717	50%	244,387,401
Federal Fund	50%	196,370,012	50%	11,939,832	50%	12,185,547	50%	11,957,294	50%	11,934,717	50%	244,387,401
Special Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	392,740,024	100%	23,879,664	100%	24,371,094	100%	23,914,588	100%	23,869,434	100%	488,774,803

***Type**: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

SIMM 20C30C, Rev. 08/2010

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

Department: California Department of Social Se

Date Prepared: 10/1/12

Project: Child Welfare Services New System

		FY 2019/20		FY 2020/2021		FY 2021/22		FY 2022/23		Net Adjustments	
Annual Project Adjustments		**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**	**PYs**	**Amts**
One-time Costs											
Previous Year's Baseline		0.0	0	0.0	0	0.0	0	0.0	0		
(A) Annual Augmentation /(Reduction)		**0.0**	**0**	**0.0**	**0**	**0.0**	**0**	**0.0**	**0**		
(B) Total One-Time Budget Actions		0.0	0	0.0	0	0.0	0	0.0	0	**117.3**	**338,276,183**
Continuing Costs											
Previous Year's Baseline		40.0	23,869,434	40.0	23,869,434	40.0	24,360,864	40.0	23,904,358		
(C) Annual Augmentation /(Reduction)		**0.0**	**0**	**0.0**	**491,430**	**0.0**	**(456,506)**	**0.0**	**(45,154)**		
(D) Total Continuing Budget Actions		40.0	23,869,434	40.0	24,360,864	40.0	23,904,358	40.0	23,859,204	**230.0**	**137,631,922**
Total Annual Project Budget Augmentation /(Reduction) [A + C]		**0.0**	**0**	**0.0**	**491,430**	**0.0**	**(456,506)**	**0.0**	**(45,154)**		

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D] **347.3** **475,908,105**

Annual Savings/Revenue Adjustments

Cost Savings		0.0	(2,623,956)	0.0	(491,430)	0.0	456,506	0.0	45,154		
Increased Program Revenues			0		0		0		0		

Child Welfare Services New System Project

OSI and CDSS FY 2013/14 Workload Analysis

September 2012

Feasibility Study Report – CWS New System Project
Office of Systems Integration Workload Analysis
Appendix N

Attachment 1 provides the workload detail for the eight OSI, CWS-NS Project staff through FY 2018-19. The Percent (%) column displays the percent allocation per each task. The Hours column displays the total annual hours for each task. The Totals row displays the total annual hours associated with each position.

Position Title	Configuration Management Analyst (#39)		
State Classification	Staff Information Systems Analyst (SISA)		
Position Type	Permanent		
Position Start Date	July 2013	**Position End Date**	N/A
Position Description	The Configuration Management Analyst is responsible for providing guidance to the project team on system configuration management processes and issues. This role is also responsible for the configuration and management of all tools utilized during each phase of the project. The Configuration Management Analyst works with the System Integrator to help define and integrate system configuration management processes for use during design, development, testing, and implementation of the highly complex statewide Child Welfare Services New System (CWS-NS) solution, as well as M&O future releases.		

	P&P				DD&I						M&O			
Configuration Management Analyst Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Participates in joint requirements validation, work sessions, or review sessions as related to configuration management deliverables.	35%	618.8	35%	618.8	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Configuration Management Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists in the procurement activities by serving as a technical member on the Evaluation Team during the evaluations of draft and final proposals of the Systems Integrator.	0%	0	15%	265.2	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda.	25%	442	12%	212.16	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in issue management, including identifying and documenting issues, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution.	19%	335.92	15%	265.2	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4
Assists in risk management, mitigation planning and contingency planning.	5%	88.4	5%	88.4	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4
Provides configuration management training to CWS-NS project staff to provide common understanding of configuration management best practices and how they should be implemented in support of the project life cycle activities.	5%	88.4	5%	88.4	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Collaborates with Operations Team concerning configuration management requirements and practices as relates to their specific areas of responsibility for the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	15%	198.9	15%	265.2
Assists in the review and evaluation of the configuration management deliverables of the CWS-NS System Integrator and provide findings and recommendations to Operations Manager concerning acceptance.	0%	0	0%	0	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4

Configuration Management Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Monitors System Integrator's configuration management related issue and risk management activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication occurs.	0%	0	0%	0	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Advises the Operations Manager on configuration management issues and risks related to the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	25%	331.5	25%	442
Participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to configuration items are provided to the CWS-NS Project in accordance with the Configuration Management Plan	5%	88.4	5%	88.4	15%	265.2	15%	265.2	15%	66.3	19%	251.94	19%	335.92
Participates in confidential bidder discussions, and assists in the preparation of change requests related to configuration management requirements.	0%	0	1%	17.68	0%	0	0%	0	0%	0	0%	0	0%	0
Supports evaluation of vendor proposals by providing information in the area of configuration management.	0%	0	1%	17.68	0%	0	0%	0	0%	0	0%	0	0%	0
Monitors the vendor configuration management activities during ongoing maintenance and operation of the CWS-NS solution to ensure that configuration management of the CWS-NS solution is preserved to support operational effectiveness, disaster recovery, and continuity of operations.	0%	0	0%	0	0%	0	0%	0	0%	0	5%	66.3	5%	88.4
Monitor System Integrator's implementation of configuration management of hardware and software items and the license management required to support different environments such as Production, UAT, Development environments, and development of system operation manuals.	0%	0	0%	0	6%	106.08	6%	106.08	6%	26.52	0%	0	0%	0

Configuration Management Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Provides assistance in development of External interfaces agreements.	5%	88.4	5%	88.4	1%	17.68	1%	17.68	1%	4.42	0%	0	0%	0
Monitors and assesses effectiveness of configuration management processes implemented by the Infrastructure Service and Support and IT Service Management vendors during the maintenance and operations phase of the system lifecycle. Provides findings and advises CWS-NS staff of the implications to the CWS-NS service solution.	0%	0	0%	0	20%	353.6	20%	353.6	20%	88.4	20%	265.2	20%	353.6
Advises the Assistant Deputy Director on configuration management issues and risks related to the CWS-NS Solution.	1%	17.68	1%	17.68	3%	53.04	3%	53.04	3%	13.26	1%	13.26	1%	17.68
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	100%	1326	100%	1768

Position Title	Procurement & Contract Analyst (#15)		
State Classification	Staff Information Systems Analyst (SISA)		
Position Type	Permanent		
Position Start Date	July 2013	**Position End Date**	N/A
Position Description	The Procurement & Contract Analyst is responsible for performing a wide range of procurement and contract management related activities in support of the CWS-NS Project.		

	P&P				DD&I						M&O			
Configuration Management Analyst Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Participates in joint requirements validation, work sessions, or review sessions as related to configuration management deliverables.	35%	618.8	35%	618.8	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Assists in the procurement activities by serving as a technical member on the Evaluation Team during the evaluations of draft and final proposals of the Systems Integrator.	0%	0	15%	265.2	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda.	25%	442	12%	212.16	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in issue management, including identifying and documenting issues, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution.	19%	335.92	15%	265.2	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4
Assists in risk management, mitigation planning and contingency planning.	5%	88.4	5%	88.4	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4

Configuration Management Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Provides configuration management training to CWS-NS project staff to provide common understanding of configuration management best practices and how they should be implemented in support of the project life cycle activities.	5%	88.4	5%	88.4	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Collaborates with Operations Team concerning configuration management requirements and practices as relates to their specific areas of responsibility for the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	15%	198.9	15%	265.2
Assists in the review and evaluation of the configuration management deliverables of the CWS-NS System Integrator and provide findings and recommendations to Operations Manager concerning acceptance.	0%	0	0%	0	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4
Monitors System Integrator's configuration management related issue and risk management activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication occurs.	0%	0	0%	0	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Advises the Operations Manager on configuration management issues and risks related to the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	25%	331.5	25%	442
Participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to configuration items are provided to the CWS-NS Project in accordance with the Configuration Management Plan	5%	88.4	5%	88.4	15%	265.2	15%	265.2	15%	66.3	19%	251.94	19%	335.92
Participates in confidential bidder discussions, and assists in the preparation of change requests related to configuration management requirements.	0%	0	1%	17.68	0%	0	0%	0	0%	0	0%	0	0%	0
Supports evaluation of vendor proposals by providing information in the area of configuration management.	0%	0	1%	17.68	0%	0	0%	0	0%	0	0%	0	0%	0

Configuration Management Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Monitors the vendor configuration management activities during ongoing maintenance and operation of the CWS-NS solution to ensure that configuration management of the CWS-NS solution is preserved to support operational effectiveness, disaster recovery, and continuity of operations.	0%	0	0%	0	0%	0	0%	0	0%	0	5%	66.3	5%	88.4
Monitor System Integrator's implementation of configuration management of hardware and software items and the license management required to support different environments such as Production, UAT, Development environments, and development of system operation manuals.	0%	0	0%	0	6%	106.08	6%	106.08	6%	26.52	0%	0	0%	0
Provides assistance in development of External interfaces agreements.	5%	88.4	5%	88.4	1%	17.68	1%	17.68	1%	4.42	0%	0	0%	0
Monitors and assesses effectiveness of configuration management processes implemented by the Infrastructure Service and Support and IT Service Management vendors during the maintenance and operations phase of the system lifecycle. Provides findings and advises CWS-NS staff of the implications to the CWS-NS service solution.	0%	0	0%	0	20%	353.6	20%	353.6	20%	88.4	20%	265.2	20%	353.6
Advises the Assistant Deputy Director on configuration management issues and risks related to the CWS-NS Solution.	1%	17.68	1%	17.68	3%	53.04	3%	53.04	3%	13.26	1%	13.26	1%	17.68
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	100%	1326	100%	1768

Position Title	Senior PMO Analyst (#32)		
State Classification	Senior Information Systems Analyst (Sr. ISA)		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The PMO Analyst is responsible for performing project management support tasks for the project. The PMO Analyst supports the project management processes (including but not limited to) risk management, issue and action item management, schedule management, change management, cost management, and communications management and develops content for control agency documents. The PMO Analyst is responsible for ensuring the project management activities of the Project are conducted in accordance with project management plans, the Office of Systems Integration (OSI) best practices, and industry best practices for project management.		

	P&P				DD&I						M&O			
Senior PMO Analyst Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Implements project management best practices from federal, State and industry standards in order that the CWS-NS Project can effectively and efficiently meet project goals and objectives.	10%	176.8	10%	176.8	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Coordinates and participates in the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD).	10%	176.8	10%	176.8	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Senior PMO Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists project management on risks or issues of quality assurance, risk management, planning, issue management, schedule management, and other project management disciplines by providing both required information and recommendations for action by management.	11%	194.48	11%	194.48	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Analyzes all federal documents relative to the CWS-NS Project and develops the appropriate responses based on the analyst's knowledge of the project's strategic and tactical plans for future changes and their associated technical justifications.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Coordinates and leads schedule planning and update sessions for the project.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Maintains the CWS-NS Project Schedule and produces reports on scheduled activities.	20%	353.6	20%	353.6	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Serves as the liaison between the CWS-NS Project and OSI facilities to deal with space planning and staff management issues.	2%	35.36	2%	35.36	2%	35.36	2%	35.36	2%	8.84	0%	0	0%	0
Coordinates with OSI Human Resources to deal with issues regarding the hiring and housing of numerous staff additions (e.g. full complement of equipment, space, and furniture.)	5%	88.4	5%	88.4	3%	53.04	3%	53.04	3%	13.26	0%	0	0%	0
Serves as the liaison between Project and OSI IT support services for all issues regarding new and existing staff.	1%	17.68	1%	17.68	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Coordinates and leads process improvement sessions for improving internal project processes and for processes involving interactions with other organizations.	3%	53.04	3%	53.04	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Senior PMO Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Creates and maintains the CWS-NS Lessons Learned repository.	3%	53.04	3%	53.04	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Serves as a PMO member of the Evaluation Team for the evaluations of draft and final bids of the Systems Integrator related to project management components.	5%	88.4	5%	88.4	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda.	10%	176.8	10%	176.8	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in the preparation of reports and presentations on project activities and status for various stakeholders.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	QA Analyst (#42)		
State Classification	Staff Information Systems Analyst (SISA)		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The QA Analyst will provide guidance to the project team on quality processes and issues, and define and integrate quality processes into the CWS-NS Project.		

QA Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
In collaboration with the PMO analysts, develops the QA plan and associated processes and procedures.	30%	530.4	30%	530.4	0%	0	0%	0	0%	0	0%	0	0%	0
Monitors the implementation of quality processes defined in the QA Plan across all project deliverables.	25%	442	25%	442	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Works closely with the System Integrator quality management staff to ensure a mutual understanding of quality requirements and their incorporation into the System Integrator's processes.	0%	0	0%	0	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Monitor project and Systems Integrator quality processes and metrics and assists in the training of project staff on quality policies and processes throughout the project life cycle.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Assists project staff in the understanding CWS-NS Project quality policies, processes, and procedures.	10%	176.8	10%	176.8	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Participates in the review and acceptance of contract deliverables.	5%	88.4	5%	88.4	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0

QA Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Manages issues related to the quality, including identifying and documenting issues related to quality processes and procedures, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution.	10%	176.8	10%	176.8	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Identifies and monitors risks related to quality, develops and monitors mitigation plans and develops and maintains contingency plans.	5%	88.4	5%	88.4	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Advises the CWS-NS Project Management Chief on quality issues and risks related to the CWS-NS Solution.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Administrative Assistant (#13)		
State Classification	Office Technician (OT)		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The Administrative Assistant is responsible for performing administrative tasks in support of the CWS-NS. The Administrative Assistant also provides general administrative support to the project team for office supplies, equipment, and clerical support.		

	P&P				DD&I						M&O			
Administrative Assistant Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Provides general office support for the CWS-NS Project Office throughout all project phases.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides clerical support, including attendance reporting, processing travel claims, and processing training requests.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Establishes and helps maintain CWS-NS Project documentation and communications, county implementation status reports, field implementation planning guides, county implementation task plans, project documents, and maintenance and operations guides.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Prepares presentations and meeting packets.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Maintains conference room calendars and project distribution lists.	3%	53.04	3%	53.04	3%	53.04	3%	53.04	3%	13.26	0%	0	0%	0
Schedules and maintains project managers' calendars.	2%	35.36	2%	35.36	2%	35.36	2%	35.36	2%	8.84	0%	0	0%	0

Administrative Assistant Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Processes incoming / outgoing mail.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Answers and direct phone calls.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Makes travel arrangements.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Provides backup support for maintaining project libraries.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Prepares project reports, meeting agendas and minutes, project communications and letters, and project documents throughout all phases of the project.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Assists in administering business services, including: purchase / maintenance of copiers, pagers, printers, fax machines, projectors; update project floor plan; purchase supplies and furniture.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Maintains checkout / in of project equipment, laptops, cell phones, projectors, pagers, etc.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Supports emergency activity coordination.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Prepares correspondence and documentation for the CWS-NS Assistant Deputy Director's signature.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Maintains status reporting schedules to assure project reporting obligations are met.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Proofreads outgoing documents for quality assurance.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Security Administrator (#40)		
State Classification	Software Systems Specialist II (SSS II)		
Position ID	Permanent		
Position Start Date	July 2013	**Position End Date**	N/A
Position Description	The Security Administrator will provide guidance to the project team on system security policies and practices. The Security Administrator ensures that the Child Welfare Services New System (CWS-NS) Project solution is designed, developed, tested, and implemented to meet CWS-NS business needs for system security, protecting the use of sensitive data and privacy as prescribed by federal, State, and local mandates.		

	P&P				DD&I						M&O			
Security Administrator Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Defines and integrates system security policies and procedures into the highly complex statewide CWS-NS Solution. Works closely with the System Integrator security architecture and development staff to ensure a mutual understanding of security policy and requirements and their incorporation into the CWS-NS solution.	30%	530.4	30%	530.4	15%	265.2	15%	265.2	15%	66.3	10%	132.6	10%	176.8
Oversees the Systems Integrator on security architecture and security processes, evaluates deliverables for acceptance, and resolves security questions throughout the project life cycle.	0%	0	0%	0	20%	353.6	20%	353.6	20%	88.4	10%	132.6	10%	176.8

Security Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Provides project staff with training and an understanding of the Office of Systems Integration (OSI), California Department of Social Services (CDSS), federal, State, and county security policies and procedures.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	10%	132.6	10%	176.8
Oversees the vendor responsible for ongoing maintenance and operation of the CWS-NS to ensure that delivery of CWS-NS services is consistent with OSI, CDSS, State, and county security policies and best practices.	0%	0	0%	0	0%	0	0%	0	15%	66.3	10%	132.6	10%	176.8
Participates in the review and acceptance of contract deliverables related to CWS-NS security architecture and design.	0%	0	0%	0	15%	265.2	15%	265.2	5%	22.1	15%	198.9	15%	265.2
Oversees the System Integrator's security related issue and risk management activities to ensure timely and accurate identification, tracking, coordination, resolution/mitigation, documentation, and communication occurs. Advises the Operations Manager on security issues and risks related to the CWS-NS Solution.	0%	0	0%	0	15%	265.2	15%	265.2	10%	44.2	5%	66.3	5%	88.4
Participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to security configuration items are provided to the CWS-NS Project.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	15%	198.9	15%	265.2

Security Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Monitors changes to OSI, CDSS, federal, State, and county security policies along with evolution of industry best practices and standards during CWS-NS maintenance and operations phase of the system lifecycle to identify new security requirements. Advises CWS-NS staff of the implications to secure operation and delivery of CWS-NS support.	10%	176.8	10%	176.8	5%	88.4	5%	88.4	5%	22.1	5%	66.3	5%	88.4
Conducts periodic security reviews to assess threat, implementation of data security and privacy policies, vulnerability management, security of data, exchange of information internal and external to the system, availability/readiness of disaster recovery and continuity of operations. Provide findings and recommendations to the CWS-NS staff responsible for proper use, operation, and maintenance of the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	10%	132.6	10%	176.8
Participates in confidential bidder discussions, assists in the development of responses to the vendor and/or control agencies, and prepares change requests related to security requirements.	25%	442	25%	442	10%	176.8	10%	176.8	10%	44.2	5%	66.3	5%	88.4
Supports evaluation of vendor proposals by providing subject matter expertise in the area of security policies, industry security practices, security standards, and security products and services. Provides assessment of how well the proposed security architecture supports the overall needs of the CWS-NS Solution in terms based on threat assessment and implementation of vulnerability management.	20%	353.6	20%	353.6	0%	0	0%	0	0%	0	0%	0	0%	0

Security Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Advises the Operations Manager on security issues and risks related to the CWS-NS Solution.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	5%	66.3	5%	88.4
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	100%	1326	100%	1768

Position Title	Database Administrator (#38)		
State Classification	Systems Software Specialist II (SSS II)		
Position ID	Permanent		
Position Start Date	July 2013	**Position End Date**	N/A
Position Description	The Database Administrator is responsible for the database and data requirements for the statewide Child Welfare Services New System (CWS-NS) solution. The Database Administrator ensures the System Integrator (SI) properly addresses these requirements during design, development, testing and implementation of the database, data warehouse, and business intelligence capabilities as part of the overall CWS-NS Solution.		

	P&P				DD&I						M&O			
Database Administrator Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Develops and manages technical requirements for database administration areas, including standards, database system quality requirements, database performance factors, data management, database backups and recovery, and database security.	25%	442	15%	265.2	0%	0	0%	0	0%	0	0%	0	0%	0
Ensures a mutual understanding with the SI, Office of Technology (OTech), and CWS-NS Project Team to develop and interpret guidelines of data and database system requirements that will be used to formulate information technology (IT) strategy and policy for CWS-NS.	5%	88.4	5%	88.4	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0

Database Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assesses existing database systems and facilities, analyzes database capacity needs, and monitors database technology direction, and design principles to make key decisions regarding changes to database and data warehouse requirements.	40%	707.2	25%	442	25%	442	25%	442	25%	110.5	10%	132.6	10%	176.8
Leads the SI's activities to provide a database, data warehouse, and business intelligence capabilities by ensuring that these components are defined, planned, developed, tested, implemented, and maintained as defined by CWS-NS requirements, specifications and other documents.	0%	0	0%	0	25%	442	25%	442	25%	110.5	25%	331.5	25%	442
As technical advisor, participates in change management process in accordance with the CWS-NS Project Change Management Plan. Ensures that changes related to data configuration items are provided to the CWS-NS Project in accordance with the Configuration Management Plan.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	30%	397.8	30%	530.4
Provides mastery level expertise in the area of data, database administration, data warehousing, business intelligence, data analytics, when participating in the confidential bidder discussions and supporting the evaluation of vendor proposals.	0%	0	25%	442	0%	0	0%	0	0%	0	0%	0	0%	0
Develops responses to the vendor and/or control agencies, and prepares change requests related to data and information management requirements.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	10%	132.6	10%	176.8
Supports and manages the development of external interfaces agreements.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0

Database Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists in management oversight of the Technical Support Services vendor to ensure data and information management infrastructure capabilities are delivered consistent with contractual obligations.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Coordinates with OTech to ensure proper maintenance and operation of the CWS-NS system as it relates to data handling and database management services during normal periods of system operations as well as support of continuity of operations and disaster recovery.	0%	0	0%	0	0%	0	0%	0	0%	0	10%	132.6	10%	176.8
Advises the Operations Manager on database issues and risks related to the CWS-NS Solution.	0%	0	0%	0	0%	0	0%	0	0%	0	15%	198.9	15%	265.2
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	100%	1326	100%	1768

Position Title	Data Warehouse Administrator (#41)		
State Classification	System Software Specialist II (SSS II)		
Position ID	Permanent		
Position Start Date	July 2013	**Position End Date**	N/A
Position Description	The Data Warehouse Administrator is responsible for the data requirements for the statewide Child Welfare Services New System (CWS-NS) solution. The Database Administrator ensures the System Integrator (SI) properly addresses these requirements during design, development, testing and implementation of the data warehouse and business intelligence capabilities as part of the overall CWS-NS Solution.		

Data Warehouse Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Develops and manages technical requirements for data administration areas, including standards, system quality requirements, performance factors, data management, backups and recovery, and security.	45%	795.6	25%	442	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Assists in the procurement activities by serving as a technical member on the Evaluation Team during the evaluations of draft and final proposals of the Systems Integrator.	0%	0	25%	442	0%	0	0%	0	0%	0	0%	0	0%	0
Assists in developing and maintaining requirements, developing proposal evaluation criteria, develop responses to Bidder questions to the RFP, and maintain portions of RFP addenda.	25%	442	20%	353.6	0%	0	0%	0	0%	0	0%	0	0%	0

Data Warehouse Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists in issue management, including identifying and documenting issues, resolving issues, documenting issue resolution, and coordinating activities and communication for issue resolution.	15%	265.2	15%	265.2	5%	88.4	5%	88.4	5%	22.1	5%	66.3	5%	88.4
Ensures a mutual understanding with the SI, Office of Technology (OTech), and CWS-NS Project Team to develop and interpret guidelines of data and data requirements that will be used to formulate information technology (IT) strategy and policy for CWS-NS.	5%	88.4	5%	88.4	15%	265.2	15%	265.2	15%	66.3	5%	66.3	5%	88.4
Assesses existing database systems and facilities, analyzes database capacity needs, and monitors database technology direction, and design principles to make key decisions regarding changes to data warehouse requirements.	10%	176.8	10%	176.8	20%	353.6	20%	353.6	20%	88.4	15%	198.9	15%	265.2
Leads the SI's activities to provide a data warehouse and business intelligence capabilities by ensuring that these components are defined, planned, developed, tested, implemented, and maintained as defined by CWS-NS requirements, specifications and other documents.	0%	0	0%	0	20%	353.6	20%	353.6	20%	88.4	5%	66.3	5%	88.4
Provide a consolidated, flexible meaningful data repository to the end users for reporting and analysis.	0%	0	0%	0	10%	176.8	10%	176.8	10%	44.2	10%	132.6	10%	176.8
Perform Data Source Interaction by analyzing and processing data extracted from a variety of sources, e.g. OLTP databases, historical repositories and external data sources to achieve a constant and efficient connection to the data source.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	10%	132.6	10%	176.8

Data Warehouse Administrator Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Perform Data preparation and staging with the data extracted from diverse sources using efficient data cleaning and loading technologies, e.g. ETL (Extraction, Transformation and Loading) to the warehousing system.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	15%	198.9	15%	265.2
Partition, summarize and store the data for efficient query and analysis. Create subject oriented data marts, dimensional models of data and use of data mining technologies.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	15%	198.9	15%	265.2
Manage data presentation tools necessary for query, analysis and reporting on data to deliver a rich end user experience.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	20%	265.2	20%	353.6
Manage metadata rules applied while cleaning and transforming data before storage in a separate relational database.	0%	0	0%	0	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	100%	1326	100%	1768

Feasibility Study Report – CWS New System Project
Department of Social Services Workload Analysis
Appendix N

Attachment 1 provides the workload detail for the ten limited term CDSS, CWS-NS Project staff through FY 2017/18. The Percent (%) column displays the percent allocation per each task. The Hours column displays the total annual hours for each task. The Totals row displays the total annual hours associated with each position.

Position Title	Business Program Manager (#05)		
State Classification	Staff Services Manager I		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS Business Program Manager is responsible for coordinating and directing CDSS tasks related to the development of the CWS-NS system and for management of the multi-disciplinary tasks assigned to the members of this CDSS CWS-NS Planning and Development Unit.		

	P&P				DD&I						M&O			
Business Program Manager Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Supervises CDSS fiscal analyst, project support analyst, business analyst and CWS program social service consultant staff who are charged with responsibilities related to the planning, development and implementation of CWS-NS.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0

Business Program Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Develops and reviews current CDSS contract, fiscal, program policy and business needs and makes recommendations to ensure that the CWS-NS Project meets these requirements.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Provides expertise, reviews, and implements program policy requirements related to the method of data entry; and maintains and revises these requirements as program requirements, policy, and technology changes occur.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Briefs the CDSS Program Manager and engages the project governing bodies related to reporting CWS-NS Project status and issues, requesting assistance, receiving feedback, and introducing project requirements and needs.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides analysis and recommendations to the CWS-NS Program Manager on problems and issues as they arise; attends and participates in all state and county input sessions.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides regular feedback to state and county program staff on decisions and issue resolution.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Business Program Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Participates in requirements definition, requirements validation, and system design sessions.	10%	176.8	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.	0%	0	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Supports all procurement activities associated with the project.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Program Support Manager (#61)		
State Classification	Staff Services Manager I		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS CWS-NS Program Support Manager is responsible for ensure program information and program expertise is provided to support the development, design and delivery of the CWS-NS.		

	P&P				DD&I						M&O			
Program Support Manager Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Ensures that program-related decisions are made and communicated to OSI, CDSS, and ACF as needed.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Develops and maintains collaborative relationships with the OSI, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Monitors project activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0

Program Support Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Coordinates CDSS tasks, participates as part of the CWS-NS project management team meetings with the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Manages and resolves issues and the activities to develop, implement, operate, and maintain the system.	25%	442	25%	442	25%	442	25%	442	25%	110.5	0%	0	0%	0
Advises the project on program issues and risks related to the system.	20%	353.6	20%	353.6	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Coordinates with the CDSS Program Managers and OSI to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the system.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Project Support Manager (#33)		
State Classification	Staff Services Manager II		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS Project Support Manager is responsible for managing the Business and Program Support units, and coordinating all aspects of program input needed to support system development and implementation. Will also support all aspects of design, development and all CWS-NS Project activities and decision making. The Organizational Change Management Team (OCM) reports directly to the Project Support Manager.		

Project Support Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Supervises CDSS managers who manage staff and county contracted consultants charged with responsibilities related to the planning, development and implementation of CWS-NS	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements.	2%	35.36	2%	35.36	2%	35.36	2%	35.36	2%	8.84	0%	0	0%	0
Briefs the CDSS sponsor, as needed, and engages the Oversight Committee to report CWS-NS Project status and issues, request assistance, receive feedback, and orient them to project requirements and needs.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Project Support Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Provides analysis and recommendations to the CWS-NS Program Manager on problems and issues as they arise; attends and participates in all state and county input sessions.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Provides regular feedback to state and county program staff on decisions and issue resolution.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Participates in requirements definition, requirements validation, and system design sessions.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Coordinates all OCM interactions and supports OCM project related plans, contracting and administration.	25%	442	25%	442	25%	442	25%	442	25%	110.5	0%	0	0%	0
Provides decision making authority as needed related to OCM and project tasks.	8%	141.44	8%	141.44	8%	141.44	8%	141.44	8%	35.36	0%	0	0%	0
Conducts stakeholder communications sessions and responds to inquires from governance bodies.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0

Project Support Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists in the review and evaluation of the RFP requirements, change requests, deliverables, and findings and recommendations to project management.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Program Manager (#04)		
State Classification	Staff Services Manager III		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS CWS-NS Program Manager reports to the Project Sponsor; represents the Sponsor on project management, planning, tasks, and decision issues; and is part of the CWS-NS Project Management team. On an as needed basis, represents the Project Sponsor in communications with the federal government, counties, and other stakeholders. The Program Manager works with the CATS Division Deputy Director to plan, direct, and oversee the day-to-day activities of CDSS staff assigned to the CWS-NS Project. The Program Manager works directly with the other project managers to ensure project success. The Program Manager works with the Assistant Deputy Director to coordinate program-related efforts and to resolve inter-branch and inter-project issues and acts as a business liaison to the OSI CWS-NS Project.		

	P&P				DD&I						M&O			
Program Manager Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Ensures that program-related contract or funding decisions are made and communicated to OSI, CDSS, and ACF as needed.	10%	176.8	10%	176.8	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Develops and maintains collaborative relationships with the OSI CWS-NS Project Team, CDSS program Divisions, counties, and other governmental agencies as needed to ensure that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project.	20%	353.6	20%	353.6	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0

Program Manager Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Monitors project activities; participates in the development, review, and revision of documents for approval and funding; identifies and resolves issues; and assists in the mitigation and management of project risk.	25%	442	25%	442	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Coordinates CDSS tasks, participates as part of the CWS-NS project management team in briefings to the CDSS sponsor, CDSS Executive Steering Committee, the Oversight Steering Committee and with control agencies as needed.	25%	442	25%	442	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Manages the review and evaluation of the deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.	0%	0	0%	0	25%	442	25%	442	25%	110.5	0%	0	0%	0
Manages and resolves issues related to the CWS-NS Solution and the activities to develop, implement, operate, and maintain the CWS-NS system.	10%	176.8	10%	176.8	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Advises the Assistant Deputy Director on program issues and risks related to the CWS-NS Solution.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Coordinates with the CDSS CWS-NS Program Managers and the Systems Integrator to obtain county and state participation in activities to design, develop, test, implement, operate, and maintain the CWS-NS system.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Total	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Administrative Assistant (#17)		
State Classification	Office Technician		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS Administrative Assistant is responsible for performing administrative tasks in support of the CWS-NS Program Manager. The Administrative Assistant also provides general administrative support to the CDSS Program Support Team for office supplies, equipment, and clerical support.		

	P&P				DD&I						M&O			
Administrative Assistant Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Maintains internal CDSS Branch systems to screen, prioritize, and organize incoming correspondence and other sensitive documentation. This includes maintaining an automated correspondence control system.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Coordinates activities when other organizations are involved.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Prepares and proofreads documents for signature of the Director, Deputy Director, Assistant Deputy Director, Branch Chief, and other Branch staff.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Prepares original correspondence pertaining to CWS-NS inquiries, ensuring appropriate Department format and guidelines are followed.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Schedules meetings, and reserves locations for CWS-NS meetings	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0

Administrative Assistant Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Works with OSI to coordinate schedules and arrange meetings, transfer of documents, etc.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Makes travel arrangements and processes travel claim documents for the CDSS CWS-NS staff, including maintaining a file of travel documents and expenses.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Develops, processes, and maintains records related to the recruitment, hiring, attendance, and other personnel related processes for CDSS CWS-NS staff.	25%	442	25%	442	25%	442	25%	442	25%	110.5	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Program Specialist (#27)		
State Classification	Social Service Consultant III		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS CWS Programs Specialist is responsible for providing child welfare program information as needed to support design, development, and implementation of the system. The CDSS Program Analyst will work collaboratively with County Consultants and Program Team to support the development of the CWS-NS requirements through technical development.		

	P&P				DD&I						M&O			
Program Specialist Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Works collaboratively with County Consultants and Program Team to support the development of the CWS-NS requirements through technical development.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Supports the planning, development and implementation of CWS-NS.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides program policy requirements related to the method of data entry, as well as maintains and revises those requirements as program, policy, and technology changes occur.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Program Specialist Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies, as needed, to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions.	20%	353.6	20%	353.6	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Provides regular feedback to state and county program staff on decisions and issue resolution.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Participates in the development and review of Adoptions related requirements definition, requirements validation, and system design sessions.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Adoptions Specialist (#63)		
State Classification	Social Service Consultant III		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS Adoptions Specialist is responsible for providing adoption program input as needed to support technical developments.		

	P&P				DD&I						M&O			
Adoptions Specialist Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Works collaboratively with County Consultants and Program Team to support the development of the CWS-NS requirements through technical development.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Supports the planning, development and implementation of CWS-NS.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Reviews current program policy and business needs and makes recommendations to ensure that the CWS-NS system meets these requirements.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides program policy requirements related to the method of data entry, as well as maintains and revises those requirements as program, policy, and technology changes occur.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Adoptions Specialist Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Develops and maintains a collaborative relationship with OSI, CDSS Program Divisions, counties and other governmental agencies, as needed, to ensure that appropriate project management occurs and that sponsorship and programmatic input is obtained and utilized in the development of each phase of the project.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides regular feedback to state and county program staff on decisions and issue resolution.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Participates in the development and review of Adoptions related requirements definition, requirements validation, and system design sessions.	25%	442	25%	442	25%	442	25%	442	25%	110.5	0%	0	0%	0
Assists in the review and evaluation of the requirements and design deliverables of the CWS-NS Systems Integrator and provides findings and recommendations to project management on acceptance.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Business Analyst (#28)		
State Classification	Associate Governmental Program Analyst		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The AGPA, Business Analyst is responsible for performing tasks in support of the project, program and stakeholder activities associated with the CWS-NS Project on behalf of CDSS and the CWS program. The Business Analyst ensures the project schedule, communications, change management and reporting requirements are being met.		

	P&P				DD&I						M&O			
Business Analyst Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Position will be responsible for coordinating all project communications to stakeholders, specifically related to all governing bodies and management.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
This position will support all organizational change management activities.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Position will coordinate with all CDSS program areas to ensure all SACWIS requirements are being met in the development of the new system. This position will support the business needs of PIAC, TAC, OSC and any other governance bodies developed and associated with supporting the project.	20%	353.6	20%	353.6	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Position will research all program aspects of the system's design and development and provide support to the project in response of CDSS policy requirements.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0

Business Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
This position will support the development of all federal reporting documents such as annual reports and Children and Family Services Reviews.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Position will be responsible for all CDSS communication meetings related to project status.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Provides analysis and recommendations on problems and issues as they arise; attends and participates in all state and county input sessions.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Provides regular feedback to state and county program staff on decisions and issue resolution.	5%	88.4	5%	88.4	5%	88.4	5%	88.4	5%	22.1	0%	0	0%	0
Reviews and corrects any and all required document sections related to program descriptions, needs, or outcomes related to the CWS-NS system; develops all county Letters or Information Notices which relate to CWS-NS system usage.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	SACWIS Analyst (#62)		
State Classification	Associate Governmental Program Analyst		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The AGPA, SACWIS Analyst is responsible for performing tasks in support of reporting and contract activities of the CWS-NS Project on behalf of CDSS and the program. The Analyst ensures the federal project documentations are reviewed and timely executed in a timely manner to align with the state and federal reporting requirements. Provides SACWIS program-related expertise.		

	P&P				DD&I						M&O			
SACWIS Analyst Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Responsible for the submission and supports the development of project-approval documents such as the Special Project Report (SPR), Supplementary Premise Information (SPI), and federal Advance Planning Document (APD) and supports OSI in the development of all necessary documentation as needed.	22%	388.96	22%	388.96	22%	388.96	22%	388.96	22%	97.24	0%	0	0%	0
Provides SACWIS program-related expertise	22%	388.96	22%	388.96	22%	388.96	22%	388.96	22%	97.24	0%	0	0%	0
Provides support to the project by ensuring approvals as necessary.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0
Responsible for the coordination of the Annual ACF site visit.	1%	17.68	1%	17.68	1%	17.68	1%	17.68	1%	4.42	0%	0	0%	0
Monitors the CWS-NS Project correspondence and reporting including AFCARS, NCANS and NYTD.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0

SACWIS Analyst Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Responsible for coordination of all federal project document and plan reviews and ensures timely approvals.	20%	353.6	20%	353.6	20%	353.6	20%	353.6	20%	88.4	0%	0	0%	0
Provide management support to ensure timely and informed decision making.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0

Position Title	Legal Counsel (#44)		
State Classification	Staff Counsel III		
Position Type	Limited Term		
Position Start Date	July 2013	**Position End Date**	September 2017
Position Description	The CDSS Legal Counsel is responsible for providing legal advice, opinions, and support to the CWS-NS Project and CDSS Operations. The CDSS Legal Counsel helps ensure that all phases of CWS-NS planning, procurement, and contracting comply with State and federal law.		

	P&P				DD&I						M&O			
Legal Counsel Tasks	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Advises the Program Sponsor, CWS-NS Assistant Deputy Director, CWS-NS Program Manager, and Acquisition Manager regarding statutory, regulatory, and program requirements impacting the CWS-NS Project or CDSS Operations.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Assists and supports development of procurement documents, contracts, and communications.	60%	1060.8	60%	1060.8	0%	0	0%	0	0%	0	0%	0	0%	0
Advises the Project Sponsor, CWS-NS Assistant Deputy Director, Operations Manager, and Acquisitions Manager regarding the application of contract terms and conditions and the vendor's compliance therewith.	15%	265.2	15%	265.2	15%	265.2	15%	265.2	15%	66.3	0%	0	0%	0
Collaborates with Intellectual Property legal contractor, OSI Legal Counsel and Other Legal Counsel.	10%	176.8	10%	176.8	10%	176.8	10%	176.8	10%	44.2	0%	0	0%	0

Legal Counsel Tasks	P&P				DD&I						M&O			
	2013/14		2014/15		2015/16		2016/17		Q1 - 2017/18		Q2 to Q4 - 2017/18		2018/19	
	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs	%	Hrs
Assists and supports contract management activities, contract negotiations and amendments, and communications during DD& during the DD&I	0%	0	0%	0	60%	1060.8	60%	1060.8	60%	265.2	0%	0	0%	0
Totals	100%	1768	100%	1768	100%	1768	100%	1768	100%	442	0%	0	0%	0