



**California Department of Public Health**

Center for Family Health

Women, Infants and Children Program

**WIC Management Information System**

**(eWIC MIS)**

Project Number: 4265-028

**Reportable Feasibility Study**

March 19, 2014

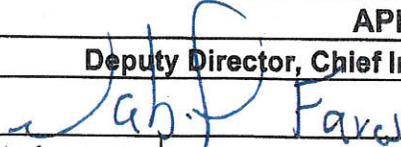
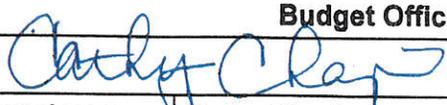
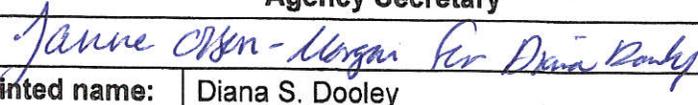
<b>Information Technology Project Request</b> <b>Feasibility Study Report</b> <b>Executive Approval Transmittal</b>			
<b>Department Name</b>			
California Department of Public Health			
<b>Project Title (maximum of 75 characters)</b>			
Women, Infants and Children (WIC) Management Information System			
<b>Project Acronym</b>	<b>Department Priority</b>	<b>Agency Priority</b>	
eWIC MIS	5		

I am submitting the attached Feasibility Study Report (FSR) 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 Feasibility Study Report.

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		Date Signed
<b>Deputy Director, Chief Information Officer</b>		
 Printed name: Nabil Fares		1/24/2014
<b>Budget Officer</b>		
 Printed name: Cathy Chapin		1/26/14
<b>Department Director &amp; State Health Officer</b>		
 Printed name: Ron Chapman, MD, MPH		3.5.14
<b>Agency Information Officer</b>		
Amy Tong:  Printed name: <del>Shell Gulp</del> <del>GRETCHEN HERNANDEZ</del>		9/18/14
<b>Agency Secretary</b>		
 Printed name: Diana S. Dooley		9/18/2014

Feasibility Study Report - Executive Approval Transmittal

**IT Accessibility Certification**

Yes or No

<b>Yes</b>	<b>The Proposed Project Meets Government Code 11135 / Section 508 Requirements and no exceptions apply.</b>
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**Exceptions Not Requiring Alternative Means of Access**

Yes or No	Accessibility Exception Justification
N/A	The IT project meets the definition of a national security system.
N/A	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").
N/A	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
N/A	Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all agency resources). Explain: Describe the alternative means of access to be provided to allow individuals with disabilities to obtain the information or access the technology.
N/A	No commercial solution is available to meet the requirements for the IT project that provides for accessibility. Explain: Describe the alternative means of access to be provided to allow individuals with disabilities to obtain the information or access the technology.
N/A	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: Describe the alternative means of access to be provided to allow individuals with disabilities to obtain the information or access the technology.

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE**  
**SECTION A: EXECUTIVE SUMMARY**

<b>1. Submittal Date</b>	<b>March 19, 2014</b>
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<b>2. Type of Document</b>	<b>FSR</b>	<b>SPR</b>	<b>PSP Only</b>	<b>Other:</b>
	<b>X</b>			
<b>Project Number</b>	<b>4265-028</b>			

<b>3. Project Title</b>	WIC Management Information System	<b>Estimated Project Dates</b>	
		<b>Start</b>	<b>End</b>
<b>Project Acronym</b>	eWIC MIS	October 2014	December 2019

<b>4. Submitting Department</b>	California Department of Public Health
<b>5. Reporting Agency</b>	California Health and Human Services Agency

<b>6. Project Objectives</b>
<p>WIC must invest in a modern MIS platform to:</p> <ul style="list-style-type: none"> <li>• Implement an EBT-ready MIS system that supports food benefit issuance via EBT processing for all WIC participants in California by October 2020;</li> <li>• Extend system functionality to support at least 70% of California WIC functional business process areas and comply with 100% of the federal minimum system requirements; and</li> <li>• Provide staff with the information and tools to make the program more effective and reduce operating costs by two million dollars annually, thereby making better use of taxpayer dollars.</li> </ul>

<b>8. Major Milestones</b>	<b>Est Complete Date</b>
Receive IAPD and FSR approval	9/2014
<b>Planning:</b> RFP development/release, vendor proposals, IAPD Update, SPR, Notice of Award & establish contract	3/2016
<b>Design:</b> Requirements validation & gap analysis	9/2016
<b>Development:</b> Configuration & testing	9/2017
<b>Pilot:</b> Pilot Test and Evaluation	2/2018
<b>Statewide Rollout:</b> Data migration & statewide transition to MIS operations	12/2019
<b>PIER</b>	6/2021
<b>Key Deliverables</b>	
<b>Planning:</b> IAPD Update, SPR, MIS contract in place	3/2016
<b>Design:</b> System requirements & Design	9/2016
<b>Development:</b> Testing results, MIS ready for pilot test	9/2017
<b>Pilot:</b> Pilot Test results and evaluation	2/2018

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE**  
**SECTION A: EXECUTIVE SUMMARY**

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		Statewide Rollout: Data migration and statewide transition to MIS complete, Product Acceptance	12/2019
<b>7.</b>	<b>Proposed Solution</b>	Select, procure and implement a Federally approved, operational WIC Universal Management Information System (MIS)-Electronic Benefits Transfer (EBT) interface WIC Universal MIS-EBT Interface (WUMEI) compliant MIS to replace California WIC Program's Integrated Statewide Information System ISIS MIS.	

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE  
SECTION B: PROJECT CONTACTS**

<b>Project #</b>	4265-028
<b>Doc. Type</b>	FSR

<b>Executive Contacts</b>								
	<b>First Name</b>	<b>Last Name</b>	<b>Area Code</b>	<b>Phone #</b>	<b>Ext.</b>	<b>Area Code</b>	<b>Fax #</b>	<b>E-mail</b>
<b>Agency Secretary</b>	Diana	Dooley	916	654-3454	N/A	N/A	N/A	DDooley@chhs.ca.gov
<b>Dept. Director</b>	Ron	Chapman, MD, MPH	916	558-1700	N/A	N/A	N/A	Ron.Chapman@cdph.ca.gov
<b>Budget Officer</b>	Cathy	Chapin	916	445-8682	N/A	N/A	N/A	Cathy.Chapin@cdph.ca.gov
<b>Deputy Director, CIO</b>	Nabil	Fares	916	445-8052	N/A	N/A	N/A	Nabil.Fares@cdph.ca.gov
<b>Project Sponsor Chief Deputy Director</b>	Dan	Kim	916	558-1700	N/A	N/A	N/A	Dan.Kim@cdph.ca.gov

<b>Direct Contacts</b>								
	<b>First Name</b>	<b>Last Name</b>	<b>Area Code</b>	<b>Phone #</b>	<b>Ext.</b>	<b>Area Code</b>	<b>Fax #</b>	<b>E-mail</b>
<b>Doc. prepared by</b>	Geanne	Lyons	916	928-8827	N/A	916	263-3358	Geanne.Lyons@cdph.ca.gov
<b>Primary contact</b>	Geanne	Lyons	916	928-8827	N/A	916	263-3358	Geanne.Lyons@cdph.ca.gov
<b>Project Manager</b>	George	Lembi	916	440-7080	N/A	N/A	N/A	George.Lembi@cdph.ca.gov

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE**  
**SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS AND BUDGET INFORMATION**

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1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	July 2013
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	August 2013
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	ITCP
		Page #	5

Project #	4265-028
Doc. Type	FSR

4.	Is the project reportable to control agencies?	Yes	No
		X	
	If YES, CHECK all that apply:		
		a) The project involves a budget action.	
		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 estimated total development and acquisition cost exceeds the departmental cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3).		
	d) The project meets a condition previously imposed by the Technology Agency.		

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE**  
**SECTION C: PROJECT RELEVANCE TO STATE AND/OR DEPARTMENTAL PLANS AND BUDGET INFORMATION**

<b>Project #</b>	4265-028
<b>Doc. Type</b>	FSR

<b>Budget Augmentation Required?</b>		
<b>No*</b>	<input checked="" type="checkbox"/>	
<b>Yes</b>	<input type="checkbox"/>	<b>If YES, indicate fiscal year(s) and associated amount:</b>
		<b>FY</b> <b>FY</b> <b>FY</b> <b>FY</b> <b>FY</b>
		<b>\$</b> <b>\$</b> <b>\$</b> <b>\$</b> <b>\$</b>

\*A budget action is not required to obtain additional expenditure authority.

**PROJECT COSTS**

1.	Fiscal Year	SFY 13/14	SFY 14/15	SFY 15/16	SFY 16/17	SFY 17/18	SFY 18/19	SFY 19/20	SFY 20/21	SFY 21/22	TOTAL
2.	<b>One-Time Cost</b>	\$ 349,463	\$ 1,938,533	\$ 2,634,054	\$ 6,831,551	\$ 6,045,997	\$ 4,961,665	\$ 2,469,676	0	0	\$ 25,230,941
3.	<b>Continuing Costs</b>	0	0	0	\$ 665,500	\$ 810,920	\$ 1,605,889	\$ 4,259,164	\$ 6,521,828	\$ 7,187,328	\$ 21,050,629
4.	<b>TOTAL PROJECT BUDGET</b>	\$ 349,463	\$ 1,938,533	\$ 2,634,054	\$ 7,497,051	\$ 6,856,917	\$ 6,567,554	\$ 6,728,840	\$ 6,521,828	\$ 7,187,328	\$ 46,281,570

**PROJECT FINANCIAL BENEFITS**

5.	<b>Cost Savings/Avoidances</b>	\$ (236,103)	\$ (1,768,493)	\$ (2,461,494)	\$ (6,342,671)	\$ (2,553,650)	\$ 376,068	\$ 2,821,745	\$ 6,735,876	\$ 7,839,232	\$ 4,410,509
6.	<b>Revenue Increase</b>	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE  
SECTION D: VENDOR PROJECT BUDGET**

<b>Vendor Cost for FSR Development (if applicable)</b>	<b>\$ 326,916</b>
<b>Vendor Name</b>	<b>Maximus, Inc.</b>

<b>Project #</b>	4265-028
<b>Doc. Type</b>	FSR

**VENDOR PROJECT BUDGET**

1.	Fiscal Year	SFY 13/14	SFY 14/15	SFY 15/16	SFY 16/17	SFY 17/18	SFY 18/19	SFY 19/20	SFY 20/21	SFY 21/22	TOTAL
2.	<b>Primary Vendor Budget</b>	0	0	0	\$ 2,368,500	\$ 1,440,161	\$ 1,236,643	\$ 618,321	0	0	\$ 5,663,625
3.	<b>Independent Oversight Budget</b>	0	\$ 84,420	\$ 112,560	\$ 112,560	\$ 112,560	\$ 112,560	\$ 56,280	0	0	\$ 590,940
4.	<b>IV&amp;V Budget</b>	0	0	0	0	0	0	0	0	0	0
	a. IV&V - SME/RFP Development		\$ 30,000	\$ 250,000	\$ 250,000	0	0	0	0	0	\$ 30,000
	b. IV&V – DD&I										\$ 500,000
5.	<b>Other Budget:</b>	0	0	0	0	0	0	0	0	0	0
	a. SME/RFP Development	0	\$ 250,000	\$ 250,000	\$ 250,000	0	0	0	0	0	\$ 250,000
	b. Quality Assurance	0									\$ 500,000
6.	<b>TOTAL VENDOR BUDGET</b>	0	\$ 364,420	\$ 612,560	\$ 2,981,060	\$ 1,552,721	\$ 1,349,203	\$ 674,601	0	0	\$ 7,534,565

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

**PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT**

7.	<b>Primary Vendor</b>	
8.	<b>Contract Start Date</b>	
9.	<b>Contract End Date (projected)</b>	
10.	<b>Amount</b>	\$

**PRIMARY VENDOR CONTACTS**

	Vendor	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
11.									
12.									
13.									

**INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE  
SECTION E: RISK ASSESSMENT INFORMATION**

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<b>Project #</b>	4265-028
<b>Doc. Type</b>	FSR

**RISK ASSESSMENT**

	<b>Yes</b>	<b>No</b>
<b>Has a Risk Management Plan been developed for this project?</b>	X	

<b>General Comment(s)</b>
<p>The Project Team is actively managing risks based on Department of Technology's CA Project Management Methodology.</p>

Project Name: EWIC MIS  
 Technology Agency Project #:  
 Department: California Department of Public Health (CDPH)  
 Revision Date: 10/22/13

## Complexity Assessment

### Business Complexity

**Instructions:** On a scale of .5 - low to 4-high (0 = N/A), rate each applicable attribute and compute the Business Complexity by dividing the total by the number of items rated above zero. [Notes: Business and technical complexity will be computed automatically in this worksheet, using the ratings you enter. Move your pointer over each attribute cell, marked with a red triangle, to see a definition of the attribute.]

Low Complexity		Business Attribute	High Complexity	Rating
0	1	2	3	
Static		<b>Business rules</b>	Changing	3.5
Static		<b>Current Business Systems</b>	Changing	4
Known and Followed		<b>Decision Making Process</b>	Not Known	2
Low		<b>Financial Risk to State</b>	High	4
Local		<b>Geography</b>	State Wide	4
Clear and Stable		<b>High Level Requirements</b>	Vague	2.5
Few & Routine		<b>Interaction with Other Departments and Entities</b>	Many and New	3.5
None		<b>Impact to Business Process</b>	High	4
Few & Straight Forward		<b>Issues</b>	Multiple & Contentious	4
High		<b>Level of Authority</b>	Low	3
Clear		<b>Objectives</b>	Vague	1
Established		<b>Policies</b>	Non-existent	1
Minimal		<b>Politics</b>	High	4
Familiar		<b>Target Users</b>	Unfamiliar	3.5
Experienced		<b>Project Manager's Experience</b>	Inexperienced	1.5
Experienced		<b>Team</b>	Inexperienced	1.5
Loose		<b>Time Scale</b>	Tight	4
Low		<b>Visibility</b>	High	4
			Total:	55
			Complexity:	3.1

Project Name: EWIC MIS

Technology Agency Project #:

Department: California Department of Public Health (CDPH)

Revision Date: 10/22/13

# Complexity Assessment

## Technical Complexity

**Instructions:** On a scale of 0-low to 4-high, rate each applicable attribute and compute the Technical Complexity by dividing the total by the number of items rated above zero. Use the definitions in the student notebook for clarity.

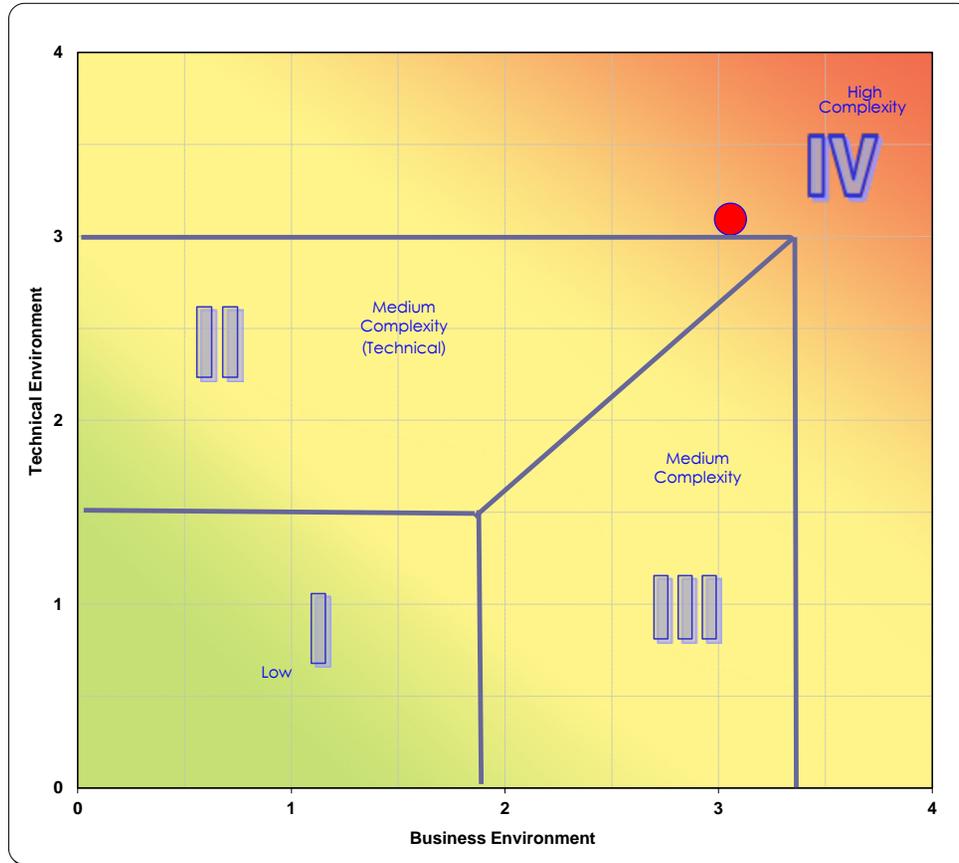
Low Complexity		Technical Attribute	High Complexity	Rating
0	1	2	3	
Local		<b>Communications</b>	State wide	4
Established		<b>Delivery Mechanism</b>	New	3
Local		<b>Geography</b>	State wide	4
Proven		<b>Hardware</b>	New	4
Stand-alone		<b>Level Of Integration</b>	Tightly Integrated	4
Proven/Stable		<b>Networks (L/W)</b>	New	4
In place		<b>New Technology Architecture</b>	Not in place	2
9-5, Mon-Fri		<b>Operations</b>	24-hour, 7-day	4
Expert		<b>PM Technical Experience</b>	Novice	2
Established and in use		<b>Scope Management Process</b>	None	2
Light		<b>Security</b>	Tight	4
Proven		<b>Software</b>	New	2
Established and In Use		<b>Standards And Methods</b>	None	1.5
Experienced		<b>Team</b>	Inexperienced	1.5
High		<b>Tolerance To Fault</b>	Low	3.5
Low		<b>Transaction Volume</b>	High	4
			Total:	49.5
			Complexity:	3.1

Project Name: EWIC MIS  
Technology Agency Project #:  
Department: California Department of Public Health (CDPH)  
Revision Date: 10/22/13

# Complexity Assessment

## Complexity Diagram

**Instructions:** Plot your project in the appropriate complexity zone.  
[Note: Your project will be plotted automatically in this worksheet, using the values computed in the previous tables.]



Scores	Business Complexity	3.1
	Technical Complexity	3.1

Project Name: EWIC MIS

Technology Agency Project #:

Department: California Department of Public Health (CDPH)

Revision Date: 10/22/13

# Complexity Assessment

## Suggested Project Manager Skill Set Guidelines

Complexity		Duration		Budget		Resources	
●	Zone 1	●	< 6 months	●	<\$500K	●	< 5
●	Zone II, Medium Zone III, Medium	●	< 1 year	●	<\$1M	●	<10
●	Zone II, High Zone III, High	●	>1 year; < 3 years	●	>\$1M; <\$5M	●	11 – 20
●	Zone IV	●	>3 years; <10 years	●	>\$5M; <\$100M	●	21 – 40
		●	>10 years	●	>\$100M	●	40+

PM Level: 4

Experience: 5+ years working as Project Manager or Project Director on large IT projects . Technical experience commensurate with the proposed technology.

Professional Knowledge: Strong working knowledge of the CA-PMM; CA Budgeting, Procurement and Contracting processes; department's methodology; and Software Development Life Cycle.

<b>For Oversight Purposes:</b>
Zone I = Low Criticality/Risk
Zones II and III = Medium Criticality/Risk
Zone IV = High Criticality/Risk

**Assess the complexity of the project periodically: every two - three months and/or at the conclusion of each phase**

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**State of California**

**California Technology Agency**

**Questionnaire for Information Security  
and Privacy Components  
in Feasibility Study Reports  
and Project-Related Documents**

**SIMM 20D**

**April 2011**

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# Questionnaire for Information Security and Privacy Components in Feasibility Study Reports and Project-Related Documents

## 1.0 INTRODUCTION

The following Questionnaire assists state agencies with describing the information security and privacy components associated with an IT project in its Feasibility Study Reports and other project-related documents. The Office of Information Security reviews these documents to ensure information security and privacy components are addressed by the state agency and provide its recommendations to the California Technology Agency.

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.

## 2.0 INFORMATION SECURITY OFFICER (ISO) ROLE AND RESPONSIBILITIES

1. What is the role and responsibilities of the Agency ISO in relationship to this project?
2. Will the ISO be involved in developing and reviewing the security requirements?
3. Will the ISO be involved in developing and reviewing the security testing efforts?
4. Has the ISO participated in the response to these questions and signed off on the project-related document(s)?

### CDPH Answer:

As directed by the State Administrative Manual (SAM) section 5300 et seq., the Information Security Office is "required to oversee agency compliance with policies and procedures regarding the security of information assets." Additionally, SAM states "Oversight responsibility at the agency level for ensuring the integrity and security of automated files, databases, and computer systems must be vested in the agency Information Security Officer".

A key way that the California Department of Public Health (CDPH) Information Security Office (ISO) supports risk management and compliance responsibilities is by reviewing the technical requirements for Projects, while ensuring that they support State and agency security policy, and that they securely align with the business requirements defined by the Project.

For this purpose, the CDPH ISO developed the Security Requirements for Projects (SR1) document. This document provides the minimum security requirements mandated by the CDPH ISO for projects governed and/or subject to the policies and standards of CDPH. Projects that intend to deploy systems/applications into the CDPH system infrastructure, or will utilize CDPH information system services, are also subject to these minimum security requirements.

In addition, the SR1 is intended to assist CDPH and its service customers in understanding the criteria CDPH will use when evaluating and certifying the system design, security features and protocols used by project solutions utilizing CDPH services. These security requirements are also used in conjunction with the CDPH ISO compliance review program of its information system services customers.

Finally, the SR1 serves as a universal set of requirements which must be met regardless of physical hosting location or entities providing operations and maintenance responsibility. These requirements do not serve any specific project, nor do they prescribe any specific implementation technology.

### 3.0 PROPOSED SYSTEM

1. Who will be the designated owner of the proposed system (system)?

**CDPH Answer:**

The Women, Infants and Children (WIC) program is funded by the United States Department of Agriculture (USDA), and as such the owner of the system will be the USDA and/or WIC.

2. Who will be the custodians and users of the system?

**CDPH Answer:**

- The custodians of the system will be CDPH-ITSD
- The users of the system will be State WIC Program staff and State WIC partners such as;
  - Local Agencies – 84
    - Local Agency Clinics – Approximately 650 offices
  - Auditors
  - CDPH-ITSD staff
  - LVL's – Local Vendor Liaisons
  - USDA
- WIC Authorized Vendors and non-authorized Vendors

3. Has the data for the system been classified by the owner? Explain.

**CDPH Answer:**

The data will be classified and follow the FIPS 199..

4. Does the project require development of new application code or modification of existing code? Explain.

**5. CDPH Answer:**

There are three State Agency Model (SAM) systems including a 4th non-SAM that are approved by the USDA for transfer and implementation. It is believed that some level of system modification or enhancement to one of these 4 systems will be necessary to fully meet the requirements and needs of California.

6. Will your agency share the data for the system with other entities? If so, who?
  - a. Federal partners
  - b. Local city/county partners

- c. State agency partners
- d. Judicial branch
- e. Universities
- f. Researchers
- g. Others

**CDPH Answer:**

Yes. As stated in number 2 above the data will be shared with State Agency partners, such as:

- Local Agencies – 84
  - Local Agency clinics – Approximately 650
- Auditors
- CDPH-ITSD staff
- LVL's – Local Vendor Liaisons
- DHCS – MEDS interface
- IZ Branch
- State Treasurer's Office (STO)
- USDA
- Researchers
- Responses to a Public Records Act requests
- Judicial Branch
- WIC Authorized Vendors

7. If data for the system is to be shared with other entities, will your agency implement data exchange agreements with the entities? Explain.

**CDPH Answer:**

Yes. Data use agreements and contracts are required. The following are listing of various contracts currently place that will be needed for the new MIS systems:

- Contracts with the 84 Local Agencies statewide
- MOU between WIC and ITSD
- Contracts with all WIC Authorized Vendors
- MOU with the STO
- Contract with DHCS
- MOU's and agreements with "Other" entities will be required on an as needed basis (i.e. Universities)

8. Are there checkpoints throughout the software development life cycle (SDLC) verifying and certifying that the security requirements are being met?

**CDPH Answer:**

Yes, testing will be performed to ensure the security requirements are met throughout the SDLC. Additionally, the following will be observed throughout the life of the system:

- CDPH Information Security Office (ISO) Security Requirements for Projects (SR1)
- OTech Information Security Standards
- State Administrative Manual (SAM) section 5300 et seq.
- Public Health Administrative Manual (PHAM) section 9-1000 et seq..

9. At what points will risk assessments be performed throughout the SDLC?

**CDPH Answer:**

In accordance with the Information Technology Project Oversight Framework (SIMM Section 45), risks will be identified, assessed and documented continuously, and formally reviewed monthly.

(See FSR, Project Summary Package)

10. At what point will vulnerability assessments be performed once the system is put into production (e.g., ongoing risk management after implementation)?

**CDPH Answer:**

As required by the CDPH ISO's Information Systems Security Requirements for Projects (ISO/SR1), Section IV.A.4, the system will allow for periodic system security reviews that provide assurance that management, operations, personnel, and technical controls are functioning effectively and providing adequate levels of protection. These reviews may include security procedures such as vulnerability assessment and penetration testing. The frequency and level of security reviews will be determined by the ISO in accordance with the CDPH ISO Information Systems Security Audit and Oversight Standards (ISO/SR3).

11. 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)?

**CDPH Answer:**

The data has not yet been rated. The data will be rated using the National Institute for Standards and Technology 800-53.

12. Does your state agency's Five Year IT Capital Plan address information security and privacy as related to this system?

**CDPH Answer:**

The latest Department of Technology (CalTech) approved IT Capital Plan (ITCP), 2013 Statewide ITCP, includes a project proposal for the WIC-MIS project. The information in the proposal follows CalTech instructions, and only briefly addresses security and privacy. Security and privacy as related to this system are addressed in the Implementation Advance Planning Document (IAPD) to be leveraged as part of the Feasibility Study Report (FSR) package. Security and privacy of CDPH projects are addressed extensively in CDPH ISO's Information Systems Security Requirements for Projects (ISO/SR1).

# California WIC Management Information System Implementation Advance Planning Document

*October 16, 2014*

*Version 1.6*

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**Transmittal**

*Cover letter, signed by the appropriate State official committing State resources.*

January 17, 2014

Dear Ms. Bach:

I am writing to submit the Implementation Advance Planning Document (IAPD) seeking approval to replace the California Women, Infants, and Children Program's management information system.

Please send the approval, review comments, and questions to Geanne Lyons ([Geanne.lyons@cdph.ca.gov](mailto:Geanne.lyons@cdph.ca.gov)) who will be compiling our responses and formal documents.

If you have any questions, please call me at (916) 928-8868.

Sincerely,

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**Appendices**

Appendix A: California Functional Requirements Document

Appendix B: Approved (June 13, 2013) California Feasibility Study – not enclosed

Appendix C: Description of California Feasibility Study Report

Appendix D: Transfer Budget Detailed

Appendix E: Information System Security Requirements for Projects (ISO/SR1)

Appendix F: CDPH Information Securities Policies

Appendix G: Replacement MIS Estimated Ongoing Maintenance and Operations Costs

**Document Information**

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**Revision History**

Version #	Revision	Date	Author	Description of change
1.0	Draft		MAXIMUS WIC Team	First Draft, reviewed by CA WIC project management
1.1	Draft	12/12/2011	MAXIMUS WIC Team	Draft, Reviewed by CDPH ITSD & PPMB
1.2	Updated Draft	7/12/2011	CA WIC	Updated text for re-review prior to submission to USDA
1.3	Final	8/9/13	CA WIC	Final submitted to USDA
1.4	Revised Final	1/17/14	CA WIC	Revisions based on feedback received from USDA
1.5	Revised Final	8/29/14	CA WIC	Revised to update Department of Technology Independent Project Oversight Budget
1.6	Revised Final	10/16/14	CA WIC	Revised based on questions from the Department of Technology

## 1 Executive Summary

*Describes at a high level the business need for a new information system.*

In June 2009, the California Women, Infants, and Children Special Supplemental Nutrition Program (WIC) submitted to the United States Department of Agriculture (USDA) Food & Nutrition Service (FNS) a Planning Advanced Planning Document (PAPD) which requested approval to undertake a project to plan the replacement of California WIC's current mainframe system. A week after PAPD submission, the USDA approved the planning project and later provided grant funds to support the planning efforts.

California WIC has performed the analysis required to assess the feasibility of a Management Information System (MIS) replacement. At this time, California WIC has not selected a specific system for implementation. During the planning period, there were no State Agency Models (SAMs)<sup>1</sup> available for consideration.

California WIC has elected to transfer a federally approved, operational WIC Universal MIS-EBT Interface (WUMEI) compliant information system, SAM or non-SAM. This approach is consistent with the USDA strategic initiative to maximize investment by the proliferation of modern information systems. Additionally, this direction is in keeping with the State's strategic initiative to harness new and innovative technology. As such, California WIC seeks to adopt a transfer system which meets the USDA functional requirements and is modifiable to meet identified California requirements while also being capable of resolving California WIC's unprecedented capacity needs.

In order to implement a transfer system, California WIC will solicit bids and contract for the services of a Design, Development and Implementation (DDI) contractor to make modifications, test, install, train users, and rollout the transfer system. California's evaluation team will select the DDI contractor based not only on the proposed cost, but also on the firm's experience and quality standards. Utilizing an outside DDI contractor will allow California to make use of specialized expertise during system implementation while State staff is trained to potentially assume operational responsibilities of the transfer system.

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<sup>1</sup> The SAM concept includes three consortia working together to develop a modern, transferrable system. These consortia include: SPIRIT (Originally 13 Inter-Tribal Organizations, that has recently added several geographic States), Mountain Plains States Consortium (MPSC, which includes Colorado, Utah, and Wyoming), and Crossroads (North Carolina, Virginia, West Virginia, and Alabama). These are further explained in *Appendix B: Feasibility Study*.

With this IAPD, California WIC seeks approval from the USDA to issue a Request for Proposal (RFP) to WIC Information System contractors and proceed with the replacement of its current MIS. The RFP initiates a competitive procurement process which will enable California WIC to evaluate the gamut of WIC data systems – SAM system and non-SAM systems- and make a selection based on the extent to which a candidate system meets the California WIC functional, non-functional, cost, timeframe and risk requirements.

## 1.1 General Information

- *The nature of the project and the program needs or requirements the proposed MIS is intended to meet or improve.*
- *The MIS functions to be included and to what level (e.g., business rules engine and web services).*
- *How the project fits into the State agency's IT strategy and plans (e.g., statewide telecommunication plan, central computer processing center).*
- *The involvement of the State's top management in the project to ensure success, and the proposed project management organization and responsibilities.*
- *The schedule for developing and implementing the system, showing major milestones, including a statement concerning the State's judgment about its ability to meet this preliminary schedule.*
- *The expected impacts on State organizational entities that will be affected by system implementation, including issues such as staffing, business process, union contracts, and communications.*
- *A description of the State's planned mechanisms for quality assurance during project development. If a contractor will not be used, a description is needed of the quality assurance approach in the State agency's plans, as well as the method envisioned to ensure independent verification and validation of the project and system performance.*

### 1.1.1 Nature of the Project

This IAPD describes the required planning considerations and formally seeks approval and project funding from the USDA to replace the current MIS. This document has been developed in accordance with the guidelines of the FNS Handbook 901 and created with the assistance of MAXIMUS Inc.

The California WIC Program is administered by the California Department of Public Health (CDPH). The Program's services are provided to approximately 1.4 million participants<sup>2</sup> by 84 local WIC agencies at over 650 sites, in all 58 counties of California.

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<sup>2</sup> Monthly average in 2013 (as of July 2013).

The operation of the California WIC Program is supported by a centralized, real-time mainframe system which was transferred from Florida WIC in 1995 and is known as the Integrated Statewide Information System, or "ISIS", and was fully implemented in 1996. Over the past 17 years, ISIS has been primarily maintained by the CDPH Information Technology Service Division (ITSD) and has been extensively modified and its mainframe platform upgraded.

ISIS is the core application which is augmented by two auxiliary systems, the Vendor WIC Information Exchange (VWIX) and WIC Information eXchange (WIX), as well as numerous non-integrated supplemental technical tools such as Microsoft Excel and Access files. Even with the addition of auxiliary systems and supplemental tools, California WIC's operational and strategic needs, as well as the USDA mandates for minimal automation and data collection, are not included in the current system. California WIC must now invest in modern technology in order to meet its operational and strategic needs, including:

- Expanding system functionality to enhance staff productivity to meet participant growth;
- Extending system functionality to support all of California WIC functional business process areas and comply with federal minimum system requirements;

*For more information, see Appendix E Current System(s) Support of Business Processes and approved California Feasibility Study.*

- Employing modern technology consistent with the strategic direction of California information technology; and,
- Providing a foundation for the implementation of WIC Electronic Benefits Transfer (EBT).

Additional information on the description of California's current system(s) is detailed on the USDA-approved California Feasibility Study.

### **1.1.2 Business Need**

A key business objective of the transfer system is to adapt, improve, and develop California WIC business processes to fully utilize the transfer system functionality and achieve maximum tangible, intangible, and productivity benefits. The transfer system will provide staff with the information and tools to make the program more effective and reduce operating costs, thereby making better use of taxpayer dollars.

*For more information, Appendix E Current System(s) Support of Business Processes and approved California Feasibility Study.*

The specific business process changes depend upon the system that will be selected through the State of California's competitive procurement process.

Below is a high level summary of these issues:

The current information system, ISIS, lacks the following core requirements:

- Integrated system ability to provide access to historical data for all users
- 100% EBT readiness

Supplementary systems, such as the WIX and VWIX, provide the following functionality:

- Standard and ad hoc reporting
- Food instrument (FI) processing

The following are challenges inherent in the existing information system(s):

- System wide adaptation challenges<sup>3</sup>;
- Not currently web-enabled;
- Limited electronic counseling protocols, automated dietary assessments, or care plans; and,
- The system(s) support between 36.7% to 59.7% of business processes<sup>4</sup>.

### 1.1.3 System Functionality

- The requirements for the transfer system are included in Appendix A: California Functional Requirements, Appendix C: Functional Requirements Summary and the approved California Feasibility Study.
- The requirements are also summarized in the approved California Feasibility Study and Appendix C: Functional Requirements Summary.
- Anticipated functional modifications are explained in *Section 4 General System Design*. California WIC will ensure all current functionality will be available in the transfer system.

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<sup>3</sup> see approved California Feasibility Study

<sup>4</sup> see approved California Feasibility Study

#### 1.1.4 Information Technology (IT) Strategy

California WIC has determined that a robust, fully functional web-based solution is required to best automate operations for WIC statewide. The decision to procure a state-of-the-art, comprehensive WIC MIS that includes local WIC agencies, state administration, and vendor management as well as state and federal reporting components. A transfer system will reduce manual processing for State administration functions.

#### 1.1.5 Management Involvement

High level oversight of this project will be provided by a WIC MIS Steering Committee comprised of senior executives and key managers from CDPH . The Steering Committee will have authority over all major project decisions and is expected to meet on a monthly basis throughout the course of the project. The CDPH Project Manager will have the authority to accept deliverables and authorize payments from the project. The CDPH Project Manager will have direct responsibility for the DDI contractor as well as enforcing the terms of the contract.

In addition to oversight from the USDA, California WIC is seeking project approval from other California government entities. Documentation required for State approval may be in the form of the approved IAPD, along with additional documentation required by the State, or through a separate California Feasibility Study Report<sup>5</sup> (FSR). California WIC is providing project planning documentation and seeking approval from the CDPH, the Department of General Services (DGS) and the Department of Technology (CalTech). In California, CalTech is responsible for the oversight of projects which meet any of the following criteria: budgets of \$1,000,000 or more, mandated by State statute or projects which CalTech determines as reportable. Since this proposed project meets all three criteria, it was deemed a reportable project.

Project status and communications will be a collaborative effort. The CDPH Project Manager and the WIC Steering Committee are responsible for project status monitoring and communication, process quality assurance, and technical assistance.

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<sup>5</sup> see Appendix C: Description of the California FSR

### 1.1.6 Impacts

The replacement of the MIS requires a significant time commitment from WIC Program staff, particularly during the business process change review, User Acceptance Testing (UAT), and the system rollout. The major project commitment will fall on the CDPH Executive Sponsor, Steering Committee, CDPH Project Director, and the CDPH Project Manager<sup>6</sup>, a CDPH employee who will be dedicated full time to this project. However, it is anticipated that the project will have an impact on other policy and staff responsibilities through participation in activities such as testing, design validation/ gap analysis, training support. These policy and IT staff are integral to the success of the project because of the expertise they will provide.

Once the system is in production, there are four major areas of organizational impact to WIC:

- WIC service site operations;
- Policies and procedures;
- Program administration; and
- IT System support.

The organizational impacts of implementing a transfer system include hiring a DDI and Quality Assurance (QA) contractor, outsourcing the application maintenance and enhancement function to the system contractor for a minimum the first one to three years post-implementation, maintaining first and second level user support from the current WIC Help Desk, and utilizing the assistance of CDPH IT staff for various assignments during the project such as data migration and software testing. The WIC staff from local WIC agencies and the State agency will be formed into workgroups for a variety tasks; notably, business process review, joint application development sessions, deliverable review, user acceptance testing, user training, and system rollout.

#### **1.1.6.1 Policies and Procedures**

Changes in policies and procedures will be required to accommodate the transfer system. At a minimum, procedures for using the transfer system will be different from ISIS, VWIX and Extranet procedures and, because of the difference in architecture, there will be new policies and procedures needed for system

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<sup>6</sup> The MIS Replacement Project will be managed by a staff member separate from that of the WIC EBT Planning Project.

security and other maintenance functions. A business process change review is anticipated to take place concurrently with system design and development activities such as documentation standards and requests for approvals, which will reflect service site and State Agency operations under the transfer system.

#### **1.1.6.2 System Operation**

The California WIC staff will be actively involved in the design and testing phases of the project. CDPH IT staff will be trained to support the system once the operations phase begins. After the DDI contractor's implementation contract has ended, California WIC may choose, like many other states, which level of maintenance and operations (M&O) will be supported both internally and externally. Specifically, activities that may be kept in-house for a short or extended period are continuation of the ongoing operation of the transfer system while activities to be outsourced could be maintenance activities such as bug fixes and system enhancement. *A more detailed discussion is available in 1.5.3 Ongoing Maintenance and Operations and 7.2.6 Maintenance Activities.*

#### **1.1.7 High Level Schedule**

The below timetable provides the project phases, approximate duration and anticipated start dates. As reflected below, the project is currently in the Planning phase which will be proceeded by the procurement of a DDI contractor. Once the IAPD receives USDA and State approval, the actual starting date for the procurement process, as well as the other project phases, will be revised. The project will also be dependent upon the availability of federal funding as well as the feasibility of the proposed system. To provide an approximate schedule, the approval of planning documents is anticipated to be complete by January 2015.

**Figure 1: Project Phases**

PHASE	TIMEFRAME	ANTICIPATED START DATES
Planning <sup>7</sup>	69 months	June 2010
Design	6 months	April 2016
Development	12 months	October 2016
Pilot Operations	5 months	October 2017
Statewide Rollout	22 months	March 2018
Maintenance	1 year	December 2019

This project schedule, the specific tasks and subtasks, and related deliverables associated with each phase are defined with further detail in *Section 7: Schedule of Development Activities, Milestones, and Deliverables*.

### 1.1.8 Quality Assurance

California WIC will address quality management of the proposed project through quality planning, quality assurance, and quality control.

Quality planning and performance of a quality audit will involve identifying relevant quality standards, determining how to satisfy them, and documenting in a Quality Management Plan. The relevant quality standards will include Federal and State rules and regulations, California project management processes, and product acceptance criteria.

Quality assurance (QA) will ensure that the project employs all management processes needed to meet the California WIC process and product requirements. The emphasis of QA will be on how the project is conducted with the “quality audit” is the primary tool to determine this.

Quality control will involve monitoring the deliverables produced, system design and project results to determine whether they comply with required quality standards. Quality control focuses on how the project deliverables and project management results compare to the relevant schedule and cost performance

<sup>7</sup> Although the State has been planning for the system transfer since 2010, the project phase “planning” also includes the final planning for procurement of services and the actual procurement process beginning with the release of the RFP for transfer and implementation services.

standards. Quality control will allow project staff to identify and eliminate causes of unacceptable performance in order to ensure the project's success.

California has included contracted services for QA in the project activities and proposed project budget. The CDPH Project Manager role includes some QA tasks and, following best practices, CA WIC may seek additional QA activities to be performed by a contractor. Contracted QA activities will provide an independent assessment throughout the project, particularly during the critical pilot phase.

The contracted QA efforts in the proposed project will include:

- A Quality Management Plan developed by the QA Team with input from the CDPH Project Manager, the system contractor, the WIC Project Steering Committee, and California WIC subject matter experts;
- Weekly meetings with the CDPH Project Manager, DDI contractor project manager, and QA Team project manager on the status of scheduled tasks, deliverables, issues, and configuration management;
- Monthly monitoring of the project schedule, budget, risks, issues, change requests, deliverable acceptance and configuration management;
- Quality audits at project phase transitions performed to identify inefficient or ineffective policies, processes, or procedures in use on the project, and confirm the implementation of any corrective or preventive actions; and
- Independent review of key technical deliverables by the QA Team subject matter experts.

The overall quality management of the project will be the responsibility of the CDPH Project Manager. The project manager for the DDI contractor will be responsible for the quality management of the contracted deliverables. The California WIC and DDI contractor project teams will be responsible for the quality control of their respective deliverables.

The quality management approach and other key elements of the project management plan are discussed in detail in *Section 6, Project Management Plan and Resource Requirements*.

## 1.2 Program

- *Commitment to involve policy staff in project development as well as any other means necessary to ensure that the system implements program policy correctly.*
- *Commitment to meet all requirements for sufficient IT capabilities (e.g., Participant Characteristics Minimum Data Set, Functional Requirements outlined in the ADP/CIS Model Plan).*

- *Commitment to ensure the system produces required program reports (e.g., for FSP the FNS-388 and FNS-46).*

California WIC, under the umbrella of CDPH, contracts program services to local agencies. Significant input from the Local Agencies as to the transfer system requirements was received. CDPH staff from ITSD, ITSD-Planning and Project Management Branch (PPMB), and CalTech have also given information and feedback on the planning process and documentation. Additionally, IT and management staff have been involved in the project planning activities and helped drive decisions in order to achieve California WIC and CDPH Information Technology's strategic goals.

### **1.2.1 Commitment to Implement Program Policy Correctly**

California WIC is committed to ensuring that the chosen transfer system supports the correct implementation of program policy. Local and State agency staff will be formed into workgroups to review current policies and processes and in order to modify and maximize the use of the transfer system in meeting the USDA and State mandates. These workgroups will also be involved in a variety of tasks; notably, joint application development sessions, deliverable review, user acceptance testing, user training, and system rollout. In the joint application development sessions, both state and local agency staff will be involved in the decision making process to modify the transfer system and/or adapt, improve, and develop California WIC business processes to fully utilize the transfer system functionality. The design decisions resulting from these sessions will be reviewed and approved by the WIC Project Sponsor, the CDPH Project Manager, CDPH IT staff, and subject matter expert staff assigned to review applicable project deliverables. Local WIC agency and State Agency staff will also perform the bulk of the work needed to conduct UAT and pilot testing, which will be the gateway to user training and system rollout.

### **1.2.2 Commitment to meet all Functional Requirements**

The requirements for the transfer system are based on the Functional Requirements Documents for a Model WIC System (FReD)<sup>8</sup>, with the addition of California-specific functional and non-functional requirements (FRD) as found in the approved California Feasibility Study). These requirements include a Participant Characteristics Minimum Data Set plus the interface needed to support the transmission of that data. California expects that the transfer system will meet or exceed all Federal and State requirements.

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<sup>8</sup> Version 2008 2.0

*See approved California Feasibility Study, and Appendix N: State Summary Requirements Matrix to see how the California Requirements translate to the USDA Model FReD requirements.*

### 1.2.3 Commitment to meet Federal Reporting Requirements

By choosing an operational system that includes robust reporting capabilities, California WIC plans to select a system that will help the State with their commitment to produce USDA required program reports. For several years, the USDA has noted<sup>9</sup> that WIC does not collect all mandatory data. The FReD cites all functionalities needed to satisfy current and anticipated USDA WIC reporting requirements.

## 1.3 Financial

- *A statement indicating whether the cost allocation plan has been approved and a description of any approved plan.*
- *A simple schedule showing the estimated development costs for the total project, by Federal fiscal year and broken out by quarter, including the total costs and what it includes (all system components, hardware/software, deliverables, services, etc.), the share of such costs allocated to the USDA FNS, and the basis for that percentage (this assumes that the cost allocation plan has been approved or submitted for approval).*
- *A description of the project costs for maintenance and operations with an estimate of the Federal share of these costs over the life of the project, and assurances that other payers are prepared to meet their share of these costs.*
- *A statement indicating whether a waiver of depreciation is being requested.*
- *A description of the equipment to be provided to each worker (or some other descriptive measure of equipment levels).*
- *A description of the results of the cost-benefit analysis.*

### 1.3.1 Cost Allocation

The transfer system is intended to only support the operations of the California WIC Program. The expenses in the project budget (implementation phase) and in the operations budget (maintenance and operations phase) are all direct costs of the system. Therefore, there was no need to include a cost allocation plan in this IAPD.

The Cost Allocation Plan is discussed further in *Section 9, Cost Allocation Plan*.

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<sup>9</sup> Specifically noted in the 2009 State Technical Assistance Review (STAR) report.

### 1.3.2 Waiver of Depreciation

The California WIC Program requests a waiver of depreciation. Please *see Section 13* for more detail.

### 1.3.3 Equipment

California WIC plans to upgrade or replace existing workstations, which are anticipated to meet the system's minimum requirements, for WIC operations. Laptops, digitized signature pads and scanners may be also provided to each service site.

The transfer system may require the purchase of the following equipment:

- 52 servers and related hardware and software to establish the four processing environments needed to operate and maintain a web-based system;
- Laptop computers<sup>10</sup> to supplement the laptops currently in use by local WIC agencies in order to fully utilize the new transfer system and ensure that all local WIC agencies have the ability to operate a site or several sites detached from the network in the event of a disaster or other contingency;
- 715<sup>11</sup> flatbed scanners to provide each local WIC agency site with the ability to store client documents and other paper forms electronically, and
- 715 signature pads to provide local WIC agency with the ability to capture participant and staff signatures on documents electronically.

California WIC does not anticipate purchases of desktop and laptop computers for local WIC agency or State agency staff as these assets are in a cycle of ongoing technology refresh.

### 1.3.4 Cost Benefit Analysis (CBA)

The Cost Benefit Analysis supports the conclusion of the Alternatives Analysis that the **Transfer/Modify a System** alternative (*see 1.4.1 Systems Alternatives Analysis* for information on the alternatives considered) provides the most benefits for the least cost in the shortest payback period or break-even timeframe.

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<sup>10</sup> Number undetermined at this point.

<sup>11</sup> One per site (650) plus 10% to account for larger sites.

## 1.4 *Technical*

- *A summary of any analysis performed by the State agency to determine the availability of transferable systems or subsystems.*
- *A brief description of the system architecture, including hardware, software, and telecommunications, and where applicable, a summary of the telecommunications planning and networking proposal.*
- *A description of efforts to address technical issues of system capacity, response times, backups, etc.*
- *A description of when and how case conversion will occur.*

### 1.4.1 **Systems Alternatives Analysis**

As mentioned previously, California WIC is seeking approval from the USDA to issue an RFP to eligible system contractors. Since the relative merits of individual systems will be evaluated through the competitive procurement process, the focus of this IAPD is the validation of the California WIC business case through the evaluation of four broad system alternatives:

- **Maintain the Status Quo:** Keep the current system and implement only USDA mandated modifications.
- **Modify the Current System:** upgrade the current system to meet program and technical requirements.
- **Custom Development:** develop a comprehensive transfer system from the ground up.
- **Transfer/Modify a System:** transferring a WIC data system currently supporting another state's WIC program and modifying it to meet California WIC requirements.

California WIC conducted preliminary research on the characteristics and functionality of WIC systems, both operational and in development. *This research is available in the approved California Feasibility Study and Appendix D: California WIC MIS System Comparison.* The research process included surveying other state WIC programs about their system replacement experience and surveying companies that have worked on WIC systems. Research was conducted in a uniform manner that would allow for side-by-side comparison of the systems based on California specific functional requirements. California WIC has steadfastly avoided further interaction with companies to preserve the ability of all contractors to bid on the implementation of the system replacement without any unfair advantage. While this research is not a comprehensive review of the WIC data system market, California WIC is confident that viable WIC data systems are available to transfer and modify to meet its various functional

requirements. However, California WIC will continue to investigate specifics, particularly telecom requirements and cost, to ensure the new transfer system can meet CA WIC capacity needs while functioning within possible infrastructure capacity.

As mentioned previously, the result of the Alternatives Analysis is that the **Transfer/Modify a System** alternative would be the best fit for California WIC. To read the complete Alternatives Analysis reference the approved California Feasibility Study.

#### 1.4.2 System Architecture

Following national standards, California WIC intends to select a centralized, web-based information system which will be warehoused on the central processor is accessible via the Internet or an Intranet. Any proposed transfer system should be a browser-based, n-tier architecture with the central host containing all of the processing logic and capacity to store all WIC Program data. No participant data will be stored on the computer equipment at local agencies. Each WIC Personal Computer (PC) at the local agencies and State Agency will run the current generation of Windows and a web browser. When the local agency is open, the PCs will communicate directly with the central host. Likewise, the State agency will also connect to the central host for all State functions.

A module in the transfer system will contain the business rules that support local WIC agency operations, such as appointment scheduling, participant certification, and Food Instrument (FI) issuance<sup>12</sup> and reporting. Additional modules include administration (system set up, FI tracking), vendor management (vendor application, monitoring), and nutrition administration (food item and package administration). All modules will be housed on the central host computer, along with the relational database that contains all of the system records, such as participants, vendors, and FIs.

The USDA has communicated that the system must be paperless. Therefore, data will be entered directly into a participant's electronic record and FIs will be printed on-demand at each service site. Local WIC agency staff will have the capability to print forms or standard reports and will be able to scan and attach files to system records. Printers will be connected to the computers either directly

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<sup>12</sup> Modern systems provide functionality for both paper benefit issuance and electronic benefit issuance (EBT).

or through a local area network (LAN)/ wireless network, and the print commands will be prompted through the software on the central server.

The term “server” is often used to refer to both a type of hardware and a software application. The web-based MIS host system will incorporate **three** types of software:

- **Application** server provides the system’s application logic and business rules of the system are part of the application server.
- **Web** (or communications) handles communication protocol over the Internet and makes the data and application available through a web browser on the PCs.
- **Database** server provides the interface between the records in the relational database and the application.

### 1.4.3 Technical Issues

California WIC anticipates that the primary technical hurdles for the transfer system will be scalability and performance. Scalability refers to the ability of the system to be cost-effectively modified to handle the high capacity needs of California including future changes in the volume of users, transactions, or other workloads. California WIC will require that viable candidate systems will demonstrate the ability to support the number of users, transactions, and FIs projected to be issued in FY 2015 while also providing evidence of the ability to be cost-effectively modified to support changes in the size and volume of the California WIC operation.

Performance refers to the ability of the system to respond to user input within specified timeframes under expected workloads. It also refers to the capability of the system to complete off-line processing during allotted timeframes under expected workloads. California WIC will also require that viable candidate systems will demonstrate equivalent or better response time than the current system(s). This includes the timely completion of all on-line, off-line and back office processing.

### 1.4.4 Case Conversion

California WIC’s approach to successful case data conversion will require preparation in advance of the proposed project as well as the system contractor’s efforts during the proposed project.

CDPH ITSD is committed to making the necessary preparations for the successful migration of all of its data, including:

- Creation of a Data Dictionary<sup>13</sup>;
- Compilation of the current system documentation<sup>14</sup> of the database, business rules, and schematics of the system(s) interactions;
- A review of the adequacy of the procedures for maintaining the current system's documentation and creation of procedures for maintaining new system documentation;
- A review of the quality of the current system data; and
- Making any needed data quality remediation.

California WIC expects that its selected DDI contractor will:

- Develop a comprehensive data migration plan;
- Develop and validate automated migration routines;
- Identify and plan any manual migration tasks; and
- Make any needed data quality remediation.

California WIC will support the DDI contractor's data migration efforts by forming the appropriate workgroups of qualified local and State agencies' subject matter experts as well as staff from CDPH ITSD.

## 1.5 Procurement

- *A summary of the procurement process that describes plans for either single or multiple procurements and whether ownership rights for software will be affected.*
- *In the case of multiple procurements, include a summary of any bidding restrictions (e.g., project management contractor cannot bid on the quality assurance contract or the planning contractor cannot bid on the implementation contract).*
- *A summary of the ongoing/planned management and operations approach (e.g., use of a facilities management contractor, in-house management, or a combination of these). If in-house staff is to be used, assurance that technical expertise is available or will be obtained, as well as demonstration of State preparedness in the areas of management and system maintenance.*

### 1.5.1 System Contractor

California WIC is seeking approval from the USDA to issue an RFP to eligible system contractors. Given that approval, California WIC plans to use the State of California competitive procurement process to retain the services of a DDI

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<sup>13</sup> The current system(s) do not have a Data Dictionary showing all data element names, associated data tables, and descriptions of data with possible variables.

<sup>14</sup> See approved California Feasibility Study

contractor to transfer, modify, implement, and maintain (at minimum through a standard warranty period) a WIC MIS. Through this procurement process, California WIC will meet all applicable State and Federal procurement requirements and provisions while also obtaining all required assurances. The procurement document and contracts will require that the State of California will retain all ownership rights to any software or software modifications and associated documentation designed, developed, or installed with Federal funding.

### 1.5.2 Project Staff

CDPH will staff the project with the appropriate program and technical expertise. The complete project organization chart is found in *Section 6.3.2, Project Staff Organization*.

### 1.5.3 Ongoing Maintenance and Operations

California WIC expects the selected DDI contractor will provide M&O services, at minimum, for a defined warranty period. California WIC evaluated several options for M&O and have concluded that outsourced operation and maintenance/enhancement would be its best alternative for at least the first one to three years after implementing the transfer system. The application maintenance and enhancement services would include the development of needed software fixes and enhancements, as well as third level technical support, for users and the in-house operations staff. This arrangement would also provide CDPH with the experience to evaluate longer term options for ongoing maintenance/enhancement and operations as well as to train State IT staff to learn how to maintain the new system. *See Section 7.2.6 Maintenance Activities for more discussion and detail.*

CDPH expects that the operational staff requirements for the transfer system will be met by CDPH ITSD staff.

## 1.6 Security

• A statement of commitment to comply with the USDA FNS security requirements, including development of a disaster recovery and business continuity of operations plan.

The State of California commits to comply with the USDA FNS security requirements, including development of a disaster recovery and business continuity of operations plan. California WIC has identified its commitment to comply with security standards in *Section 10: Security Planning* which outlines security planning activities that will be applied to this project. CDPH and

California WIC have a disaster plan which will be updated, as necessary, to reflect the transfer system requirements.

A transfer system will provide a centralized restorable database which will include all-important information and will be backed up through California State technology standards. All vendor and local agency records containing the only original or copy of the legal contracts are in paper files held in several file rooms onsite.

## 2 Cost Benefit Analysis

*Provides a meaningful comparison of the costs of the alternatives being considered.*

### 2.1 Methodology

A Cost Benefit Analysis (CBA) was conducted to compare the potential system alternatives. Data collection for the CBA included:

- **Facilitated meetings with California WIC and ITSD staff:** These meetings included discussions related to current operations and cost factors for the baseline environment.
- **Data review:** This included reviewing reports and data sheets from the State to document current cost factors.
- **Analysis of other states' costs:** This included reviewing costs related to operating systems in other states to determine cost drivers and extrapolate potential costs for California.

This information was utilized to develop a baseline cost analysis<sup>15</sup> and to determine costs for operating a transfer system in the California environment.

*See approved California Feasibility Study*

The alternatives considered included: retaining the current ISIS system, or the status quo, with Federally required upgrades, modifying the current system to meet model system functional requirements, building a system from the ground up or selecting and transferring/modifying an operational WIC system. Below is a high level analysis of the alternatives.

- The **Maintain the Status Quo** alternative may not be cost effective as the current system(s) may not support the State's operational and strategic needs into the future.
- **Modify the Current System** may not be cost effective if another system is available for transfer that meets federal and California requirements with minimal change. **Custom Development** is not feasible since it would cost \$25 million more to implement than the **Modify/Transfer a System** alternative, exposing the program to higher data processing costs.

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<sup>15</sup> Numbers were derived directly or extrapolated from the FFY 2009-2010 CDPH ITSD invoice documents provided to WIC.

The full CBA and its conclusions can be found in the approved California Feasibility Study.

### 3 Functional Requirements Document (FRD)\*

*Provides a comprehensive description of functions to be included in the system. Refer to the [WIC Functional Requirements Document \(FReD\)](#) for details.*

California WIC has created extensive functional requirements in the FRD. The functional requirements include all requirements present in the FReD. Using the State Summary Requirements Matrix as a guide, the State determined which functions are required and must be included in the transfer system, as well as optional items that would benefit the State.

The California Functional Requirements Document is included in this IAPD submission. *Appendix A: California Functional Requirements Document.*

A Summary of the Functional Requirements Document is included in *Appendix C: Functional Requirements Summary and the approved California Feasibility Study.*

A requirements traceability matrix is included in the approved California Feasibility Study Report.

### 4 General System Design\*

*Includes a combination of narrative and diagrams that describe the generic architecture of the proposed system, as opposed to the detailed architecture that will be developed later.*

The Alternatives Analysis in the approved California Feasibility Study identified the transfer and modification of an existing WIC system as the best alternative for the California WIC Program. This section describes the generic architecture of such a transfer system and is organized as follows:

- Functional Description;
- Technical Description;
- Equipment Needed;
- Resource Requirements;
- Operational Environment; and
- System Performance Requirements.

## 4.1 Functional Description

The primary function of the transfer system is to support and facilitate business processes necessary to the administration of the California WIC program. The California FRD details the requirements or minimum functions of the transfer system by process area. The transfer system will offer the following process and functional improvements:

- Extension of system functionality to support all business process areas to include automation of business processes that have been performed manually or have had limited automation support;
- Reduction of paper use, storage, and paper destruction costs;
- Functionality to enable interfaces with other information systems;
- Electronic collection of data reducing duplicative manual entry and reduction in processing steps and consolidation of off-system data stores;
- Reduction of system operating costs;
- Addition of interfaces with related systems; and
- Full compliance with federal system requirements.

### 4.1.1 Extend System Functionality

The transfer system will extend functionality to the nine high-level functional areas providing business processes that are crucial to the administration of the California WIC Program. These functional areas include Direct Services, Finance, local WIC agency Support, Nutrition Education, Program Integrity and Policy, Reporting, Technical Support, Training, and Vendor Management. As described in *Appendix E: Current System(s) Support of Business Processes and calculated in the approved California Feasibility Study : Business Process Calculation*, a portion of California WIC's state administrative functional areas rely on manual procedures and off-system data stores. The proposed solution will allow CA WIC's administration of the program to be more effective, while continuing to be responsible stewards of the public funds.

### 4.1.2 Consolidate Off-System Data Stores

The transfer system will enable the program to consolidate a variety of data sources such as Microsoft (MS) Excel spreadsheets, MS Access databases, paper files, and other external systems into one comprehensive database. This will improve data quality and enhance staff productivity by providing users with

common access to needed data on demand. *See approved California Feasibility Study*

The California WIC State office and local WIC agency staff currently request more than one-hundred ad hoc reports each month. Data consolidation will improve the following process areas: Nutrition Education & Surveillance, Vendor Management, Participation Management, Fiscal Management, Quality Assurance, Inventory Management, and Customer Service.

#### 4.1.3 Automate Business Processes

The transfer system will enable the program to automate business process steps that are currently performed manually or make limited use of automation. This functionality will improve the following processes: Appointment Scheduling, Certification, Food Redemption and Reconciliation, Vendor Management, Participation Management, Management Reporting, and Customer Service.

Providing the following new functionalities:

- Appointment calendar update and maintenance;
- Creation and modification of document templates;
- Maintenance and prioritization of a waiting list;
- Calculation of the Maximum Allowed Department Reimbursement (MADR)<sup>16</sup>;
- Calculation of participant income;
- Tracking vendor correspondence and complaints;
- Identification of high-risk vendors;
- Outreach letters and surveys;
- Support call tracking and follow up;
- Monitor Inventory;
- Financial audit support functionalities;
- Process Farmers Market Nutrition Program (FMNP) benefits;
- Forecasting;
- Caseload management;
- Contract management;

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<sup>16</sup> MADR is also known as Not to Exceed (NTE).

- Breastfeeding Peer Counseling (BFPC) case management;
- Local WIC agency BFPC and Vendor application processing;
- Collections documentation;
- Compliance monitoring documentation;
- Investigation documentation;
- Routine monitoring documentation; and
- Appeals documentation.

#### 4.1.4 Collect and track complaints

The transfer system will provide the functionality to log, track, and resolve complaints received against vendors. Per Federal regulations, the State agency must have procedures to document the handling of complaints by participants, parents or caretakers of infant or child participants, proxies, vendors, farmers, home food delivery contractors, and direct distribution contractors.

#### 4.1.5 Reduce paper use

The transfer system will enable to program to eliminate or reduce the use of pre-printed paper forms. Also, document imaging will enable staff to scan paper documents and signatures and convert them to secure digital images for electronic storage. The combination of these functionalities will also reduce paper storage and destruction costs. The functionality will improve the Direct Services, local WIC agency Support and Nutrition Education.

#### 4.1.6 Add needed interfaces

The transfer system will continue to allow the program to add interfaces with related systems, providing staff with access to and use of interface information to better serve participants. Adding related system interfaces will primarily improve the certification process.

The interfaces to be added include but are not limited to:

- The California Department of Health Care Services' Medi-Cal<sup>17</sup> Program for determination of adjunctive eligibility;
- The California Department of Social Services' CalFresh<sup>18</sup> Program for dissemination of vendor information, such as disqualifications;

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<sup>17</sup> Medi-Cal is California's Medicaid program. MEDS is Medi-Cal's information system.

- The California Department of Public Health (CDPH), Immunization Branch for the determination of participant immunization status;
- The California Department of Education's Commodity Supplemental Food Program (CSFP) to share information to prevent dual participation;
- A third-party financial processor to process and document FI redemption;<sup>19</sup> and
- A public facing website to provide self-service functionality for participants and vendors.

#### **4.1.7 Collect paper form detail electronically**

The transfer system will enable the program to electronically collect data currently recorded on paper while also improving these process areas: Certification, Nutrition Education & Surveillance, Vendor Management, Participation Management, and Customer Service.

The data items to be collected electronically include, but are not limited to:

- Voter Preference form
- Nutrition Questionnaire form
- Subject, Objective, Assessment and Plan (SOAP) notes and care plans
- Vendor Application form
- Vendor Price list
- Vendor Training log
- Vendor contracts
- Outreach list and campaign activity log
- Program monitoring and support records

#### **4.1.8 Fully comply with Federal system requirements**

The transfer system will enable the program to comply with all of the Federal system requirements and fully support all process areas with needed functionality.

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<sup>18</sup> The California CalFresh program has been formerly known as Food Stamps and federally known as the Supplemental Nutrition Assistance Program (SNAP).

<sup>19</sup> Currently this is conducted by the State Treasurer's Office (STO).

#### 4.2 Technical Description

The transfer system will consist of three major applications: clinic/site, state/back office, and system administration. The database will be centralized and consist of three levels of data: site, local agency, and state. The following are the major technical requirements for the transfer system:

- Commercially developed, web-based system transferred from another state WIC agency or developed by a data system contractor using a relational database management product while also meeting or exceeding applicable CDPH IT standards for hardware, software, connectivity, and security;
- Uses existing CDPH desktop computers and printers where possible;
- Uses the existing CDPH intranet and/or extranet network;
- Easily modified to meet California-specific requirements, including the addition of system interfaces;
- Provides secure digitization of paper documents and signatures;
- Provides local data store capability for disaster recovery;
- Provides the capacity and scalability to meet the processing needs of the current client base and the expected growth in clients and regulatory requirements; and
- Provides secure remote access for system contractor support and maintenance.

#### 4.3 Equipment Needed

The transfer system needs the following equipment to support California functional requirements:

**Figure 2: CA WIC Server Configuration**

Environment Type	Server Type	Quantity	Replacement Cycle
<b>Production</b>	Database	8	10 years
	Application	8	
	Web	4	
<b>Acceptance Test/ Training</b>	Database	8	
	Application	8	

Environment Type	Server Type	Quantity	Replacement Cycle
	Web	4	
<b>System Test</b>	Database	2	
	Application	2	
	Web	2	
<b>Development</b>	Database	2	
	Application	2	
	Web	2	
<b>Total Servers</b>		52	

- *Server configuration* – there will be four environments as shown in the table Figure 2 above.
- *Storage* – The servers will be connected to a storage area network which will fully accommodate the various environment and archival storage needs for the transfer system.
- *Desktop computers* – California WIC expects that the transfer system will require a change in the current desktop computer capacity of the California local and State agencies.
- *Peripherals* – California WIC will use document scanners and signature pads to securely store and manage client and other business documents. This is expected to reduce paper use, storage, and destruction costs, as well as save the staff time in searching for the retrieving paper files.

#### 4.4 Resource Requirements

- *Operations Staff* – The operational staff requirements for the transfer system will be met by California WIC and/or CDPH IT staff.
- *Maintenance/enhancement staff* – This support will continue to exist outside California WIC. Today, M&O is performed by a consolidated IT unit within CDPH, ITSD. As a standard, M&O will be outsourced to the system contractor for the warranty period. This arrangement will provide the experience with which California WIC can evaluate its longer term option to in-source M&O and enhancements.

- *Help Desk staff* – The CDPH IT Help Desk, at WIC headquarters, will continue to provide program and first level application support to the users and routing second level calls as needed, whereas the DDI contractor and/or CDPH IT staff will provide third-level user and technical support to the Operations staff and the State WIC Help Desk.

#### 4.5 Operational Environment

The proposed WIC Data System hosting arrangements will be the responsibility of the CDPH ITSD.

#### 4.6 System Performance Requirements

California WIC has worked with ITSD to establish a secure data traffic network for the California State WIC and local agencies.

California WIC recognizes the importance of developing system performance objectives and requirements. The project goals must include measurable performance objectives to provide a baseline for which the transfer application's performance can be measured.

California WIC plans to run test scenarios against the selected transfer system from various local agencies in California. The test scenarios will be conducted from several locations utilizing different types of internet access including; digital subscriber line (DSL), T1<sup>20</sup>, and other LANs<sup>21</sup>. These test results will then be used to determine acceptable and unacceptable measurements for the performance objectives. The vendor will be responsible to meet the stated performance objectives.

The hardware and software proposed by the DDI Contractor to support the California WIC Program must meet the State specified metrics. For specific comparative metrics, the DDI Contractor must provide the required measurement.

##### 4.6.1 User Load

The system should be able to support 1.5 times the peak number of concurrent users of the current system in order to provide sufficient capacity for growth. The current system supports 4,674 users as well as 1,720 concurrent users; therefore, the minimum requirement should support 2,580 concurrent users.

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<sup>20</sup> A T1 line refers to a specific type of copper or fiber optic telephone line that can carry more data than traditional telephone lines.

<sup>21</sup> Local Area Networks

The response time for user screens should not degrade current response times for the peak number of users, as outlined below:

- Search screens should have the longest allowed times, maximum of five (5) seconds depending on complexity.
- Natural screen flows resulting in the updates of single logical records, should be one second or less.
- Screen actions invoking complex computations or rules engines should be two seconds or less.
- Actions invoking remote interfaces or systems should be time limited by the responsiveness of the remote system.

Response time for the system will be measured at multiple locations and at multiple connection bandwidth types within the State of California.

The DDI Contractor and a representative of the State WIC Office will measure response times and report the results to the CDPH Project Manager.

#### 4.6.2 Transaction Performance

The system must perform at 1.5 times the peak rate of transactions with 2x times the number of participants, or 3 million active per month, in order to provide sufficient spare capacity for future growth. If there are multiple classes of transactions, this metric should be per transaction type applied simultaneously across all transaction types.

The backup window times should be clearly defined, both incrementally and weekly/monthly.

#### 4.6.3 System Down Time

The system must be operational 24 hours per day, seven days per week excluding the CDPH IT routine maintenance time period, which is expected to be similar to California's current maintenance schedule. *See approved California Feasibility Study.*

The DDI Contractor will suggest a configuration for a failover/standby/backup solution. If appropriate, the DDI Contractor should provide a high availability configuration for the production environment as a zero downtime solution in the case such a configuration is possible.

## 5 Capacity Planning or Study\*

*Specifies the size and expansion capabilities of the new system or the scope of enhancement to an existing system.*

The full capacity planning study can be found in the approved *California Feasibility Study*.

## 6 Project Management Plan and Resource Requirements

*Describes the project oversight and reporting requirements for the State and contractor.*

### 6.1 Overview

This section identifies the tasks and level of effort that will be required from the California WIC Program to support the implementation contract and to provide project oversight.

### 6.2 State Agency Roles and Responsibilities

This project will fully utilize staff resources for day-to-day project management throughout the project. The California WIC Program will contract with a firm to provide QA services and another firm to provide IV&V services. The QA Team will review all of the implementation contractor's deliverables, monitor adherence to the project schedule, support the UATs, and provide general project and risk management oversight. The WIC Director, CDPH Project Manager, CDPH IT staff and WIC program staff will review deliverables in addition to the QA review. The CDPH Project Manager will also have the authority to accept deliverables and authorize payments from contractors working on this project. The CDPH Project Manager will be responsible for enforcing the terms of the contract.

### 6.3 Project Staffing

#### 6.3.1 Staffing requirements

CDPH has identified a full-time Project Manager<sup>22</sup> who will have primary responsibility for the day-to-day operations and management of the project from planning through implementation. Responsibilities will include coordinating with stakeholder groups, leading internal planning efforts, communicating with the Steering Committee, signing off on approved deliverables, and managing contractors' scopes of work.

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<sup>22</sup> The MIS Replacement Project will be managed by a staff member separate from that of the WIC EBT Planning Project.

**Figure 3: CA WIC MIS Project Staffing Roles**

POSITION	ROLE
<p><b>Agency Program Administrator</b></p> <p>This is an Agency Administrator for whom the project is undertaken and who is the primary stakeholder and the primary risk taker.</p>	<p>Some of the duties performed by the Agency Program Administrator are:</p> <ul style="list-style-type: none"> <li>• Resolves resource and priority conflicts.</li> <li>• Approves the generated work plans.</li> <li>• Holds subordinate managers accountable for their performance.</li> <li>• The chief advocate for the project.</li> </ul>
<p><b>California WIC Director – Executive Sponsor</b></p> <p>This is an Agency Manager directly responsible for WIC program staff.</p>	<p>The WIC Director keeps the Agency Project Administrator apprised of progress and serves as primary contact with USDA.</p> <p><b>Reports to:</b> Agency Program Administrator</p>
<p><b>CDPH Project Manager</b></p> <p>This is the Project Manager with responsibility for managing the project.</p>	<p>This is the person that will serve as the single point of contact with the DDI Contractor and any other Contractors. The CDPH Project Manager has direct communications and reporting relationship with QA Team to assure we maintain the appropriate goals, keep updated on new information, hold accountable for planning and executing the project and assure that the agreed upon contract services are being delivered effectively and in a timely manner. The CDPH Project Manager coordinates with all State staff and contractors.</p>

POSITION	ROLE
<p><b>QA Team</b></p>	<p>This team will assure the WIC Program and user’s perspectives are identified and implemented. CDPH plans to acquire the services of a QA and IV&amp;V consultant. Independent project oversight services will also be arranged. Some of the QA duties performed by the QA Team are:</p> <ul style="list-style-type: none"> <li>• To provide oversight of the project plan. The QA Team is in close daily contact with the CDPH Project Manager, outside vendors, and Project Steering Committee and regularly reviews the project status to ensure that all requirements are fulfilled and on schedule.</li> <li>• Able to advise and recommend changes in work direction to the CDPH Project Manager.</li> <li>• Formulates work plans for the transfer of the system and reviews milestones, resource allocations and system development strategy and reporting requirements based on assigned tasks.</li> <li>• Coordinates activities with the CDPH Project Manager, outside vendors and the USDA as requested by WIC.</li> <li>• Works closely with users from the State and local agencies as well as the ITSD/WIC Automation Project Manager as required by the project.</li> <li>• Responsible for project reporting and documentation. Project reporting includes project schedule status and spending.</li> <li>• Serves as the primary point of contact for WIC issues during project planning, development and implementation.</li> <li>• Chairs and participates in meetings.</li> </ul>

POSITION	ROLE
	<ul style="list-style-type: none"> <li>• Maintains a project documentation library in a secured environment accessible by selected staff.</li> <li>• Gathers information through contact with other State Programs, IT specialists, and the USDA.</li> </ul> <p><b>Reports to:</b> CDPH Project Manager and Executive Management</p>
<p><b>WIC Program Staff</b> WIC staff employed under the State WIC Program.</p>	<p>Some of the duties performed by the WIC Program Staff are:</p> <ul style="list-style-type: none"> <li>• Assist the CDPH Project Manager and WIC QA Team as needed.</li> <li>• Provide subject matter expertise.</li> <li>• Review and provide comments on deliverables, as needed.</li> <li>• Participate in system user acceptance testing.</li> <li>• Update policies to support changes to the system.</li> <li>• Support training of local level staff by communicating policy changes that will be made to support the system.</li> </ul> <p><b>Reports to:</b> CDPH Project Manager</p>

POSITION	ROLE
<p><b>ITSD Development Manager</b></p> <p>This is an ITSD Agency Manager directly responsible of the work for the ITSD WIC Automation Project Manager and associated ITSD Developers working on WIC applications.</p>	<p>Some of the duties performed by the ITSD Development Manager are:</p> <ul style="list-style-type: none"> <li>• Provides day-to-day supervision of the ITSD staff supporting the project efforts</li> <li>• Has direct communications and reporting relationship with WIC Director, CDPH Project Manager and the ITSD Automation Project Manager.</li> <li>• Keeps the ITSD Automation Project Manager focused on appropriate goals and up to date with new information</li> <li>• Holds the ITSD Automation Project Manager accountable for planning and executing the project.</li> <li>• Holds the ITSD Automation Project Manager for delivering agreed-upon results.</li> <li>• Provides weekly status updates, as determined by the WIC Director and CDPH Project Manager.</li> <li>• Serves as the primary point of contact that arises for ITSD issues during project planning, development and implementation</li> </ul>

POSITION	ROLE
<p><b>ITSD Automation Project Manager</b></p> <p>ITSD Developer who will be the lead WIC automation project contact for this project, who will work directly with the State WIC Program and other divisions of ITSD and report status of the project to the Department of Public Health Point of Contact/ITSD Development Manager.</p>	<p>This position will bring the State of California technology perspective. This position develops and maintains the current WIC Program management information system. Some of the duties performed by the ITSD Automation Project Manager are:</p> <ul style="list-style-type: none"> <li>• Provides oversight on project plan for ITSD tasks</li> <li>• In close daily contact with the ITSD Development Manager to ensure that all requirements are fulfilled.</li> <li>• Able to advise the ITSD Development Manager the consequences of any changes in work direction</li> <li>• Assist in the creation of work plans and milestones based on assigned tasks.</li> <li>• Works closely with ITSD Divisions and the QA Team at appropriate times as required by the project.</li> <li>• Responsible for project reporting and documentation to the ITSD Development Manager on progress of system implementation.</li> <li>• Serves as the secondary point of contact that arises for ITSD issues during project planning, development and implementation.</li> <li>• Chairs or participates in meetings related to the IT requirements.</li> <li>• Maintains a project documentation library for IT documentation.</li> </ul> <p><b>Reports to:</b> ITSD Development Manager</p>

POSITION	ROLE
<p><b>Project Steering Committee</b></p>	<p>Some of the duties performed by the Project Steering Team:</p> <ul style="list-style-type: none"> <li>• Oversee the project in terms of the contract and work order agreements, charter, and project management plan elements, such as:                             <ul style="list-style-type: none"> <li>○ What are the deliverables for his or her agency, and are they being met?</li> <li>○ Is the project on schedule? If not, what are the consequences? Can or should the project be put back on schedule and how will that be done?</li> <li>○ What expenditures have been made? Is the project on budget? If not, what are the circumstances surrounding it?</li> </ul> </li> <li>• Recommendation of approval of any scope changes, or any changes that affect cost and scheduled based on cost benefit to the Agency Program Administrator.</li> <li>• Makes final recommendations to the Department of Public Health Executive Management.</li> </ul>
<p><b>Planning Team Leads</b>                      Leads with teams representing State Administrative functions and Local WIC Agency functions</p>	<p>The Planning Team Leads will provide day-to-day support for the project, including participating in system design confirmation sessions and testing. Members of these teams will be responsible for providing subject matter expertise in their specific area to support the CDPH Project Manager.</p> <p><b>Reports to:</b> CDPH Project Manager</p>

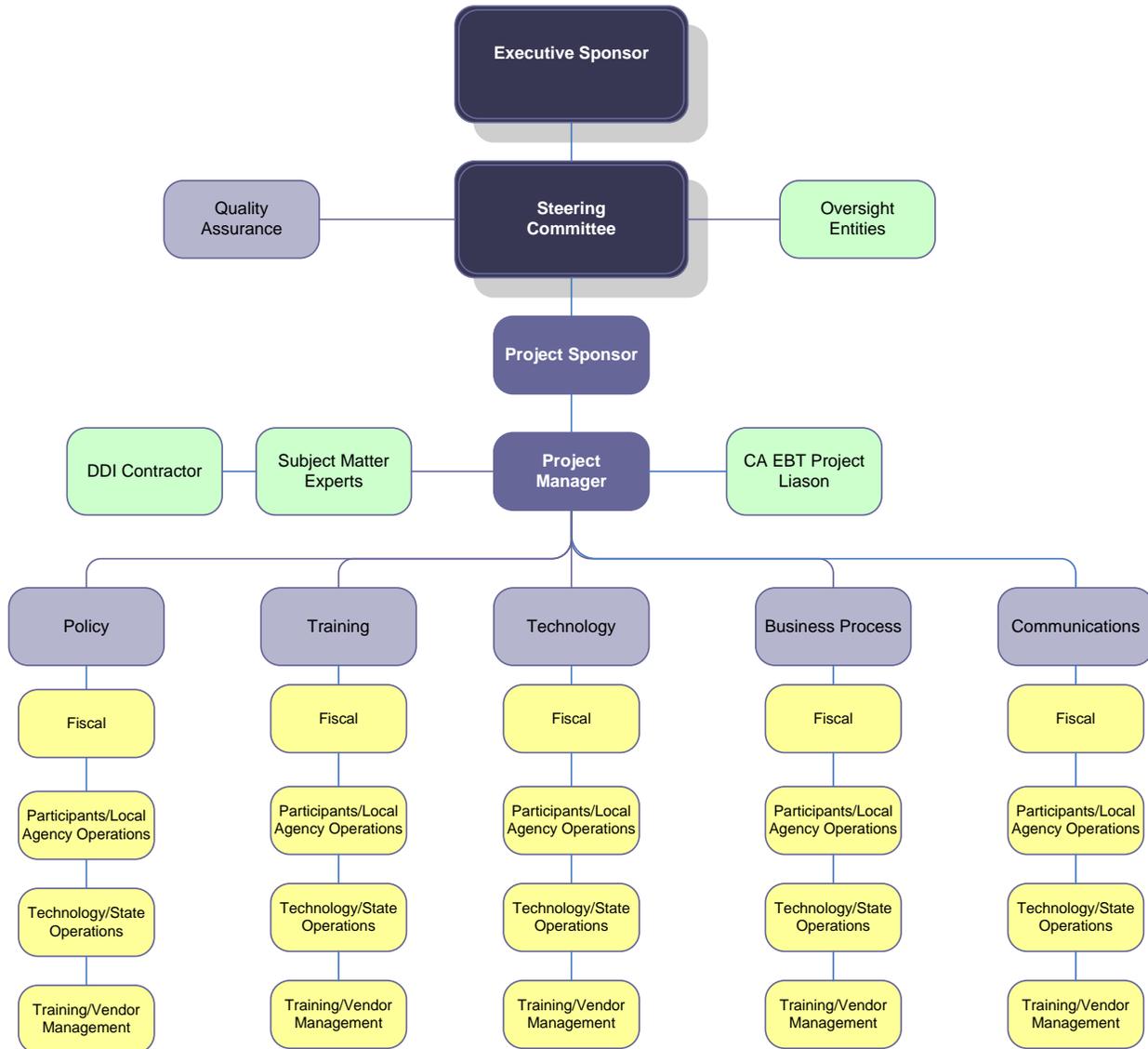
### **6.3.1.1 One-time**

The following tasks will be performed by State Agency staff during the planning, design, development, and implementation of the transfer system in California, but will not be required for ongoing operations:

- Planning and organization
- Procurement, RFPs, bid evaluation
- Steering Committee / oversight
- Project management
- Policy review and update/ business process changes
- Technology management and oversight
- Software analysis and modification planning (GAP analysis)
- System modification and data conversion
- System and user acceptance testing
- Hardware install and configuration support
- Local agency staff training support

### 6.3.2 Participation in operations and support State staff training-Project Staff Organization

The organization of the proposed project is shown in the diagram below.



## 6.4 Technical Resources

### 6.4.1 Hardware

California WIC has a lifecycle replacement program where equipment is replaced, “refreshed”, at least every three to four years. The transfer system may require upgrades or replacement of PCs, laptop computers, or printers for

local agency service sites. To make use of the robust functionality in the transfer system and support the State's desire to operate paperless sites, the State may be required to purchase scanners and digital signature pads.

The CDPH Project Manager will oversee the purchase of scanners and signature pads according to specifications required by the transfer system as well as ~~and in~~ the State's hardware equipment procurement policy. The CDPH Project Manager will also oversee the purchase of server equipment for the primary and backup sites, if needed.

#### **6.4.2 Software**

The department will seek a transfer system that requires minimal ~~no~~ specialized software to be installed on the hardware in local agency sites or at State offices.

This project does not include developing any office automation functions, although some state office components of the system may link to office automation software such as Microsoft Word or Excel, for the generation of letters or reports. The equipment at local agency sites and the California WIC office already has and uses such software. It is not anticipated that purchase of any other office automation software will be required for the transfer system.

## 7 Schedule of Development Activities, Milestones, and Deliverables

*Includes a timeline that outlines the key implementation tasks, events, dates, and deliverables requiring FNS review and/or approval.*

### 7.1 Overview

This section defines the anticipated schedule of activities, milestones and deliverables to be followed by the DDI contractor, including system M&O after rollout is complete.

California WIC will require strict compliance with the approved schedule from the DDI contractor. Failure to meet the approved schedule may result in withholding payments or other penalties (such as instituting liquidated damages), as determined to be in the best interest of the State.

### 7.2 Project Phases

The project will consist of the following phases that include the listed high level tasks:

**Figure 4: CA WIC MIS Project Phase Tasks**

PHASE	HIGH LEVEL TASK
Planning	<ul style="list-style-type: none"> <li>• Procurement Documentation and Contracting</li> </ul>
Design	<ul style="list-style-type: none"> <li>• Project Initiation</li> <li>• Final Work Plan</li> <li>• System Requirements Document</li> <li>• Planning Documents</li> <li>• Gap Analysis</li> </ul>
Development	<ul style="list-style-type: none"> <li>• Business Process Review/ Policy Adjustment</li> <li>• System Modification, Technical Testing, and Revisions</li> <li>• Site Readiness Checklists</li> <li>• Equipment Procurement (Pilot)</li> <li>• Operational Planning, Documentation, and Training Materials</li> <li>• Central Operations Preparation</li> <li>• User Acceptance Testing</li> </ul>
Pilot Operations	<ul style="list-style-type: none"> <li>• Training (Central Office- ITSD)</li> <li>• Training (Pilot Clinics and State)</li> <li>• System Pilot Test</li> <li>• Pilot Evaluation and System Modification/ Retesting</li> </ul>

PHASE	HIGH LEVEL TASK
Statewide Rollout	<ul style="list-style-type: none"> <li>• Equipment Procurement (Statewide)</li> <li>• Statewide Training</li> <li>• System Rollout</li> <li>• System Documentation</li> </ul>
Maintenance & Operations	<ul style="list-style-type: none"> <li>• Initial 1 Year Warranty</li> <li>• Extended Warranties</li> </ul>

As part of their response to the RFP, potential DDI contractors are required to provide detailed descriptions of all planned activities and timeframes related to these project phases. In addition to a detailed narrative about each proposed task and activity, potential contractors' proposals must include a schedule of proposed work, including Gantt charts illustrating project milestones and dates or timeframes for contract deliverables.

The phases are broken down in the following stages to include high level tasks and subtasks.

### 7.2.1 Planning

Planning activities relate to the development and release of procurement documents, evaluation of proposals from potential DDI contractors, and contracting with a qualified DDI contractor. The project is currently in the planning phase. This phase will be complete upon the award of the contract to a DDI contractor.

### 7.2.2 Design<sup>23</sup>

Design activities set the foundation for the system transfer and necessary modifications which will include the deliverables that document how the project will take place.

#### **7.2.2.1 Project Initiation**

The project initiation should include a subtask which allows contractors to meet with California WIC to confirm expectations for deliverables and the operation of the project.

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<sup>23</sup> During the Design and Development phases, California WIC, with the assistance of the DDI contractor, will be performing a Business Process Review to adjust policies and procedures to meet the requirements of the transfer system.

### ***7.2.2.2 Final Work Plan and Schedule***

The DDI contractor will deliver a final master work plan, including Gantt charts and a project calendar prepared using Microsoft Project or similar software. The master work plan shall reflect any changes from the plan submitted with the contractor's proposal that were discussed and agreed to during the project initiation meeting. The work plan will be maintained throughout the life of the project and updated as necessary by the contractor to reflect the accurate status of the project and as tasks are completed.

### ***7.2.2.3 Implementation, Change Management, Training, and Security Plans***

The DDI Contractor shall deliver written plans to describe, in detail, specific activities for the system modification, transfer and implementation. The plans will detail the DDI Contractor's approach to system implementation which describe the implementation of a pilot, as well as change management, including system modifications and configuration management while also accounting for training and security. The plans will include lists of detailed tasks with task descriptions, identification of responsibilities, and timeframes.

### ***7.2.2.4 Detailed Functional Design***

The DDI contractor will provide a Detailed Functional Design (DFD) document describing the functional requirements of the system, including local agency sites and State offices, and central processing functionality displaying exhibits of all system windows and pop-ups, screens and reports. The document will describe all functional specifications, including all inputs, processing, and outputs. The DFD will also include a cross-reference from screen and report fields to data dictionary entries.

### ***7.2.2.5 Detailed Technical Specifications***

The Detailed Technical Specifications (DTS) will describe all internal specifications in detail through both a narrative and graphical representations including but not limited to, use cases and sequence diagrams. The DTS must contain: all database schemas, entity relationship diagrams (ERDs) with data dictionaries, definitions of system edits and constraints, processing controls, backup and recovery procedures, and a detailed description of the system architecture – communications, networks, processors, and system and development software. The system's architecture description will include a description of all aspects of the central processing site(s) comprising hardware, operating system(s), web server, application server software, and database

server software, as well as techniques that should be used to manage the server installation. The approach to load balancing, fault tolerance, and failover capability will also be described.

#### ***7.2.2.6 Detailed Equipment Specifications and Configuration Requirements Plan***

Once the technical requirements for the transfer system have been finalized, the DDI contractor will prepare a plan or report outlining the equipment specifications and configurations for all environments of the transfer system, including the central processing site, State office, and local agency sites. Detailed equipment specifications (e.g., web servers, application servers, database servers, report servers, failover systems and hardware, routers, firewalls) shall be provided, along with the number and type of telecommunications lines, and configuration in detail inclusive of such things as operating systems, web software, I/O ports, processor numbers types and speed, storage capacity, so that the State is able to procure hardware to support the system. Minimum hardware/infrastructure specifications will be provided for both the minimum and maximum numbers of users.

#### ***7.2.2.7 Data Conversion Plan<sup>24</sup>***

The conversion plan will provide a field-by-field mapping, including how the values will be converted, from the current system to the transfer system, including the following:

- Any assumptions or proposed calculations involved in the conversion;
- Default values for required fields that do not exist in the current system(s) or a method to allow for missing data until all participants have been served on the transfer system;
- Methods for handling anomalies in the data between the system(s), or data elements with incompatible length and/or type between the system(s), or data elements with stricter edit requirements in the transfer system that fail those edits in the old;
- Manner in which data elements that have been assigned default values by the automated conversion procedures will be populated with actual data once automated conversion is complete for a site. Data necessary to

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<sup>24</sup> A current system(s) data dictionary will need to be created by CDPH ITSD prior to Data Conversion efforts.

continue operations and meet the USDA reporting requirements without operating parallel systems must be specifically identified and converted. The plan will detail any data “clean up” procedures in the individual agencies that can effectively improve the conversion effort;

- Identify what data sets, external to the ISIS database, will be converted; and,
- Identify data elements that exist in the current system that do not exist in the transfer system and methodology for resolution.

The Conversion Plan will explain any possible exceptions to full conversion of the databases. It will also detail exception reports that will be produced by the conversion programs and provide for a fully auditable conversion of data files.

### **7.2.3 Development Activities**

#### ***7.2.3.1 System Modification Initiation***

The DDI contractor will convene a meeting at the California WIC office to review the plans, schedules, and deliverables for the modification, testing, and implementation phases of the transfer system project. Key California WIC, CDPH, QA Team, and DDI contractor staff shall participate.

After the meeting, the DDI contractor shall deliver a technical memorandum documenting all agreements, understandings, and contingencies arising from the System Modification Initiation Meeting.

#### ***7.2.3.2 Interface Requirements Identification***

The DDI contractor will conduct meetings with CDPH staff to determine the interface requirements of the transfer system.

#### ***7.2.3.3 System Design Sessions***

The DDI contractor will conduct joint application design (JAD) sessions for the validation of required system functionality. The JAD sessions will define all functionality of the system prior to initiating any system development or modification activities to ensure that the DDI contractor understands the State’s requirements.

#### **7.2.3.4 System Development**

Once the requirements have been agreed upon and documented through the JAD process, the DDI contractor will begin development and modification activities. It is anticipated that the development process will be iterative allowing the DDI contractor to demonstrate system functionality on a regular schedule prior to the completion of development activities.

#### **7.2.3.5 Technical Testing and Revisions**

The DDI contractor will develop and submit a detailed test plan as outlined in the FNS 901 Handbook (section 2.3.2.1.8.) to FNS for approval prior to the start of UAT. The system will be ready for UAT only after the DDI contractor has performed a thorough system qualification test of all system functionality utilizing the *FNS WIC Management Information System Review Tool*, which demonstrates achievement of pre-determined criteria required for entrance to UAT and submitted these results to CDPH and FNS to review and approve. The UAT readiness criteria will be used to determine whether or not the system proceeds from UAT to pilot. The UAT readiness criteria will be determined in advance and agreed upon by the DDI contractor and California WIC prior to initiating the UAT task. The WIC MIS project will review the system performance documentation against the pre-determined readiness criteria as well as the completed *FNS WIC Management Information System Review Tool*, the project plan and schedule, the logistical factors, CHPD's readiness assessment, and possibly other factors that will lead into the decision on when whether to move forward. Readiness criteria will be established and reviewed at each critical phase, such as entrance to UAT, acceptance of UAT/ entrance to pilot, and expansion from pilot to statewide rollout, and may differ by phase as appropriate. The CDPH Project Manager and WIC Steering Committee will also determine the timeline for notifying FNS in order to receive approval prior to transitioning from UAT to pilot and from pilot to statewide rollout of the system.

The DDI contractor is responsible for creating test scenarios, generating the test data, and test cases to be used for its own system qualification test. California WIC and the QA Team will modify these scripts as necessary to reflect the California environment and may develop additional scripts beyond these existing scripts.

The DDI contractor shall perform modifications to the transfer system using a structured system life cycle development methodology that, in addition to the

UAT which is described in *Section 7.2.3.9: Support User Acceptance Testing and System Revision*, includes the following types of test activities<sup>25</sup>:

**Figure 5: CA WIC System Tests**

TEST TYPE	DESCRIPTION
Baseline Test	Prior to any system modifications, a baseline test will be required to ensure that the transferred system operates correctly in the California environment.
Unit/Module Test	This test is used to validate that an individual program module or script functions correctly. It verifies the module's logic and adherence to functional requirements and technical specifications. Each unit/module test shall execute every source statement and each conditional branch in the module. Test results are recorded in the software development folder for that module.
Subsystem Integration Test	This test examines subsystems that are made up of integrated groupings of software modules. Subsystem integration testing should be conducted in the development environment. It is the first level of testing where problem reports are generated, classified by severity, and the resolution monitored and reported. Subsystem integration testing may need to be run several times for each subsystem, and is only complete when it can be run with zero errors.

<sup>25</sup> As California WIC will be transferring and modifying a system, the scope of the testing may be limited to the modifications.

TEST TYPE	DESCRIPTION
System Test	This test reviews the entire system once modification and testing of all system modules and subsystems have been completed. It determines whether the system complies with standards and satisfies functional, technical, and operational requirements. During this test period, system documents and training manuals may also be reviewed for accuracy, validity, completeness, and usability. The software performance, response time, and ability of the system to operate under stressed conditions are tested. The external system interfaces are also tested. All findings shall be documented in a system qualification test analysis report prepared by the DDI contractor and submitted to California WIC. Like the subsystem integration test, this test may need to be run several times and is only complete when it runs according to the pre-determined performance criteria established by the CDPH Project Manager and WIC Steering Committee.
Regression Testing	Regression testing shall retest a system component, such as a unit, module, or subsystem, following any modification to verify that the problem was corrected without adverse side effects and to ensure the component still complies with requirements. Regression testing also refers to rerunning the entire system qualification test after errors have been corrected to ensure that unanticipated errors have not been introduced elsewhere in the system by the error correction activity.
Readiness Certification	Once the DDI contractor is satisfied that the system meets the functional requirements and technical specifications, the contractor shall provide California WIC with a written certification that the system is ready for UAT. This certification shall not be delivered until the system has passed all tests and there are no known errors.
Periodic Reviews	During this reoccurring subtask, the DDI contractor shall schedule periodic reviews for local agencies. The purpose of these reviews is to measure overall progress and status of the system development activities.

### ***7.2.3.6 Develop and Review Site Readiness Checklists and Provide Recommendations***

The DDI contractor will develop detailed checklists to be completed by each local WIC agency site to determine the readiness of each site for implementation of

the transfer system. The checklists will capture data to evaluate relevant aspects of each existing site such as clinic layout, electrical service, telecommunications capability, and the ability to keep equipment and FI stock secure. State staff will work with the local agency sites to complete the checklists and submit the completed checklists to the DDI contractor. The DDI contractor will review each of the checklists and provide California with a technical memorandum identifying any areas of concern related to the implementation of their system in any site and providing recommendations for mitigating the concern.

#### ***7.2.3.7 Operational Planning, Documentation, Training Materials***

The DDI contractor shall deliver all reports and other written deliverables to the CDPH Project Manager. Other planning tasks and non-written deliverables shall be performed under the direction of the California Project Manager.

Written deliverables will be submitted electronically in draft form for review by identified California WIC staff and the QA Team, as appropriate. Final products will be submitted after receipt of California's comments and in appropriate quantities and format<sup>26</sup> for implementation and system operation purposes.

#### ***7.2.3.8 Central Operation Site Preparation***

It will be both the DDI contractor and CDPH ITSD's responsibility to assist California WIC in installing and testing the software on the servers and ensuring that the remote sites are properly configured for the UAT. For a viable UAT, the server environment where the software is loaded, or test bed, must be connected to the actual host computer that will be used for a test environment. The UAT test environment needs to emulate production as much as possible.

The DDI contractor will train the California CDPH IT staff and provide on-site assistance for the central operation during the UAT. The DDI contractor will also review and provide an assessment of the security and disaster recovery procedures for the central site.

#### ***7.2.3.9 Support User Acceptance Testing and System Revision***

The DDI contractor will have primary responsibility for managing and operating the UAT; the DDI contractor will be responsible for ensuring that UAT participants, or State and local agency staff, have the training, access, and testing tools such as scripts and data needed to perform the test. The DDI

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<sup>26</sup> Some documents, such as training manuals, may be required in hard copy format. All deliverable submission requirements will be detailed in the RFP.

contractor will provide test scenarios and metrics related to the success of the UAT and will provide results regularly throughout the UAT process. These metrics will be used by the CDPH Project Manager and the Steering Committee to assess performance of the UAT.

The DDI contractor will convert a sample database from the current system to the correct format and load it into the test database. This will include State agency, local agency/site, participant, financial and vendor management data.

Prior to beginning of the UAT, the DDI contractor shall perform a system walkthrough showing key functions to the WIC Director, CDPH Project Manager, CDPH IT staff, and other WIC staff as appropriate. In this demonstration, the system must perform the following functions according to the pre-determined performance criteria:

- Establish clinic calendar, schedule appointments, mark appointments as kept or missed;
- Create security/user roles;
- Perform client certification (including, but not limited to, creating a new client record, determining income eligibility, nutritional eligibility/ risk code assignment, assignment of food packages);
- Issue benefits via electronic benefits;
- Transfer participants between families and families between local agencies;
- Upload/download local WIC agency files to and from a laptop computer (i.e., test the disconnected mode of operations);
- Authorize a new vendor;
- Performing vendor management activities including, but not limited to, tracking routine monitoring, compliance, and training; and,
- Print Participation Report; and,
- Reconciliation of Benefits.

If there are any errors other than cosmetic errors during the demonstration, then the UAT will not proceed.

Assuming that the walkthrough is completed and achieves the pre-determined performance criteria, the system will become available to California WIC for UAT. The DDI contractor will provide training on the proper procedures to be followed

to perform the UAT, including how to run scripts and report bugs or issues. The DDI contractor will be available on-site and in their development facilities for consultation and problem resolution during the entire test. As part of the UAT, the DDI contractor shall assist the State in installing the central site processor system.

The system, as delivered by the DDI contractor for UAT, is expected to have relatively few errors. It is assumed that the UAT can be completed in two rounds, of four to six week rounds—one to uncover any errors and a second to verify that any errors identified have been fixed and that no new errors have been introduced. This requires that the DDI contractor not only fix the errors identified in round one, but also run the resulting system through their system qualification test prior to delivering it for the second round of UAT. The period of UAT is expected to be four to eight weeks in duration, providing the above assumptions are satisfied. If California WIC adopts software that has already been tested and approved, the UAT mainly applies to the subsequent modifications and will address connectivity in various locations. The DDI contractor shall make all required corrections and revisions to the system resulting from the acceptance testing process. System retesting will be conducted as required until the system is accepted. If the UAT exhibits any failures, the system will be returned to the DDI contractor for revisions.

During UAT, the user manuals and online help will also be evaluated. The UAT procedures will instruct the testers to reference the user manuals or online help for directions regarding how to perform the required actions. Any inadequacies in the manuals must be corrected prior to final acceptance of those documents by California WIC.

After successful completion of the acceptance test, the DDI contractor will provide a formal assessment of the system's readiness for pilot implementation.

#### **7.2.4 Pilot Operations**

The purpose of the pilot is to verify that the system works correctly in conditions of actual use. Once the system has passed UAT and has been formally accepted, a system pilot will be conducted in an area of the State that provides representation of different site types, sizes and connectivity. This location is yet to be determined. The State WAN will be tested prior to pilot to ensure appropriate access to the transfer system from the field. California WIC will not proceed to pilot until it is confident that there is very little possibility of an unsuccessful outcome to the pilot.

#### ***7.2.4.1 Pilot Operations Initiation Meeting***

Following successful completion of the UAT, the CDPH Project Manager shall convene a meeting with the DDI contractor's project manager, other key WIC Program and IT staff, and contractor staff as necessary. The meeting attendees will discuss and review the project plan, schedule, and deliverables for the implementation of system pilot projects.

#### ***7.2.4.2 Central Operation Program Support Staff Training***

The DDI contractor will provide any additional training, as necessary, to the IT staff identified during the UAT in order to meet defined success criteria. The DDI contractor will also provide training to the State Agency office staff or CDPH ITSD staff to be able to provide adequate support throughout pilot and rollout. Following this training and the initial week of pilot, the contractor may be able to provide any additional assistance to the WIC Program during the remainder of pilot remotely from their facility if all pre-determined success criteria have been satisfied.

#### ***7.2.4.3 Pilot Agency (State Office and Clinic) Training***

After successful completion of the UAT, the DDI contractor will provide training for the staff who will be involved in each pilot site. The DDI contractor shall provide the CDPH Project Manager with documented evidence of each trainee's competence within one week of the training event. Based on the transfer and implementation contractor's proposed training plan, classroom training provided by the DDI contractor is anticipated to last three to five days. Additional days for local staff to complete system set-up activities, such as creating the monthly schedules and creating the master nutrition education contact plans, may also take place just prior to using the system to process clients in the pilot implementation.

#### ***7.2.4.4 Data Conversion for Pilot***

The DDI contractor shall convert all State and local level databases in the current system for each local agency in the pilot site to the approved format in the new database. The conversion for each of the pilot sites' databases will occur immediately prior to implementation of the pilot site.

#### ***7.2.4.5 System Pilot Test***

The DDI contractor will be required to oversee the pilot test of the transfer system. The pilot is expected to last for three calendar months. DDI contractor

staff will be onsite in California during the first week of pilot. All interfaces, including end of day and end of month activities such as reports, will be tested during the pilot phase.

California will be responsible for day-to-day operation of the central processing system during the pilot site operations, although the DDI contractor will oversee the pilot and provide consultation and assistance as needed.

#### ***7.2.4.6 Evaluate Pilot, Modify, and Retest System***

Beginning with the pilot's initiation, informal evaluation of the system software will occur through regular communication with the pilot and central sites. Corrections, retesting, and release of updated versions of the software will occur as problems are encountered. Prior to the start of the pilot, a Regression Test shall be performed by the DDI contractor in consultation with the CDPH Project Manager and key WIC personnel. This test, based on the DDI contractor's own internal test procedures, shall be used to verify modifications and corrections made in response to problems identified during the pilot, before they are released to the pilot users. The regression test is designed to test overall system operability after modifications have been installed but before release of the software to the user community. It does not replace the normal development testing required for changes. Its primary purpose is to ensure that the changes do not affect other aspects of system functionality. The test shall use standardized inputs and known outputs to assess the impacts of changes.

Within ten days following the end of the pilot, the DDI contractor and the QA Team, with input from the pilot Local WIC Agencies, will each complete and submit an evaluation of the system pilot. The evaluation will address the following factors:

- System stability;
- Adherence to functional requirements;
- User satisfaction;
- Impact on participant flow and convenience;
- Impact on clinic operations;
- Availability and accuracy of State level data;
- Adequacy of help messages and user documentation;
- Security and system integrity;
- Need for modification of system or user processes; and

- FI redemption and banking processes.

The results of the evaluations will be documented in a report to be delivered to the CDPH Project Manager. The CDPH Project Manager must approve all system revisions resulting from the evaluation of the pilot.

## **7.2.5 Statewide Rollout**

### ***7.2.5.1 System Rollout Initiation Meeting***

Following successful completion of the system pilot, the CDPH Project Manager shall convene a meeting with key California staff and the contractors. The meeting shall be attended by the DDI contractor's project manager and other local agency staff as deemed necessary. The purpose of the meeting shall be to discuss and review the project plan, schedule, and deliverables for the rollout of the transfer system to the remaining sites.

After successful completion of the pilot, the system will be rolled out to the remaining local agency sites as well as to State office staff. A region of local WIC agencies/sites will be trained in the use of the transfer system one week before system implementation. As one region begins using the transfer system, the next region of local WIC agencies/sites will begin their training the following week.

### ***7.2.5.2 Statewide Training***

After successful completion of the pilot test, the DDI contractor will provide training for the staff at all sites. Based on the transfer and implementation contractor's proposed training plan, classroom training provided by the DDI contractor is anticipated to last three to five days. Additional days for local staff to complete system set-up activities, such as creating the monthly schedules and creating the master nutrition education contact plans, may also take place just prior to using the system to process clients in the pilot implementation.

### ***7.2.5.3 Statewide System Rollout***

The DDI contractor will be required to oversee the rollout of the transfer system. DDI contractor staff will be onsite in California during the first week of each region's implementation or until all pre-determined success criteria have been satisfied.

California will be responsible for the day-to-day operation of the central processing system during the statewide rollout, although the DDI contractor will

provide consultation and assistance as needed. The DDI contractor shall be responsible for supporting California in the operation of the central site processor application. During this period, the DDI contractor shall ensure that the central processor application provides all functionality and processing required to fully support the WIC program.

For this subtask to be successful, the central site processor application shall, at a minimum, provide the following services:

- Provide online access to the transfer system functionality in the state office and from the site locations for operations, analysis, and the generation of reports;
- Provide all file maintenance, including backups, archiving of data, and maintenance of database synchronization between system modules on a daily basis;
- Ensure all data communications between the central site processor and the sites and state offices;
- Provide disaster recovery procedures to ensure satisfaction of system availability requirements;
- Provide the software and support required to exchange data with other State and Federal programs electronically; and,
- Provide all system enrollment, reconciliation, expenditures, vendor, and other required reports in the media required and according to the agreed upon schedule.

Approximately four days following system rollout to the first group of sites, a checkpoint meeting will be convened to identify any problems that must be fixed before rollout to the remaining groups of sites. The meeting will be attended by the DDI contractor, the CDPH Project Manager, QA Team and other WIC Program staff as deemed necessary. If no significant deficiencies are identified, the CDPH Project Manager will make the decision to proceed with rollout to the remaining groups of sites.

Any problems encountered during the initial system operation will be either remedied or documented, depending on their effect on the delivery of services. If any deficiencies in the system functional requirements, technical operation, or reliability are identified, the DDI contractor will be required to repair these at no cost. Any changes that are considered enhancements will be handled through a change management process.

#### ***7.2.5.4 System Documentation***

The DDI contractor shall provide all system documentation that is updated to reflect the final implementation of the system in California within ten days of the final site rollout. This package of documentation will include a system transfer package with sufficient documentation to allow the system to be transferred to another state agency.

### **7.2.6 Maintenance Activities**

#### ***7.2.6.1 Contract Closure for the Modification & Implementation Phase***

Subsequent to system rollout, the DDI contractor will be required to deliver all documentation, source codes, forms, or other materials in addition to participant or program data retained under the provisions of this IAPD. The contractor will submit a final invoice for system modification and implementation activities.

#### ***7.2.6.2 One Year Warranty Period***

The DDI contractor shall be responsible for the support and M&O of the local WIC agency/site as well as State office applications for a period of one to three years. This responsibility includes one on-site follow-up training event if determined necessary by California and may include as-needed ongoing training. The DDI contractor shall correct any system problems identified and provide any system modifications at no additional cost to ensure the complete functionality as required by this IAPD, the RFP, the DFDD, the DTSD, FRD, and the contract between California and the DDI contractor. All system problems reported during the warranty period are included under this provision, even if their repair extends beyond the warranty period.

#### ***7.2.6.3 System Problem Reporting***

During the warranty period, the DDI contractor shall provide the CDPH Project Manager with a written response to any reported system problem addressing the technical nature of the problem and the proposed plan to resolve the issue. All approved change orders by the CDPH Project Manager shall be tracked separately.

#### ***7.2.6.4 System Modification***

During the initial warranty period, the CDPH Project Manager may request the contractor to make changes to the existing system. These changes will be designed, developed, tested, and implemented on a mutually agreed upon

schedule using a change order process. Costs for these changes shall be negotiated based on the rates quoted in the cost proposal. The DDI contractor shall provide documented test results and updated system documentation prior to implementation of the change. No charges shall be made for M&O required to the system to meet the system and functional requirements approved prior to contract closure.

#### ***7.2.6.5 Second to Fourth Year Extended Warranty Option***

At the expiration of the initial warranty period, the optional extended warranty periods will begin. The DDI contractor should offer three, one-year warranties on the system software for services similar to the initial warranty at California's option. During the extended warranty period, the contractor will be responsible for correcting all errors in the system software. The contractor must have qualified staff available as needed during the extended warranty periods for repair or system enhancement purposes.

During the extended warranty period CDPH shall communicate regularly with the contractor to report the nature and type of any problems identified. The DDI contractor shall advise the California WIC of any solutions that do not require programming fixes.

#### ***7.2.6.6 Extended Warranty Period: System Modification***

During the extended warranty periods, CDPH may request the contractor to make changes to the existing system. These changes will be designed, developed, tested, and implemented on a mutually agreed upon schedule using a change order process. Costs for these changes shall be negotiated based on the rates quoted in the cost proposal. The DDI contractor shall provide documented test results and updated system documentation prior to implementation of the change. No charges will be incurred for M&O required to the system to meet the system and functional requirements approved prior to contract closure.

#### ***7.2.6.7 Extended Warranty Period: Maintenance and Operations (M&O)***

California WIC evaluated three alternatives for system M&O:

- In-house operations and M&O/enhancement;
- Outsourced operations and M&O/enhancement; and
- In-house operations and outsourced M&O/enhancement.

First, some definitions are required:

- *Maintenance* — when applied to a software system, maintenance means correcting and testing errors that are discovered in the system. This includes configuration management (version control) and managing the process of placing updated versions of the system into production.
- *Enhancement* — when applied to a software system, enhancement means gathering requirements, designing, coding, testing, and implementing system features that have been requested by system users and other stakeholders. This includes managing the processes of prioritizing requests, placing updated versions of the system into production, and configuration management.
- *Operations* — when applied to a software system, operation means running it as required. This includes managing servers and server farms, managing communications, running batch jobs, monitoring and correcting system performance, troubleshooting, operating the help desk, maintaining system hardware, etc.

There is considerable overlap between the activities of M&O and enhancement. Hence, the terms will be used together in this analysis.

#### 7.2.6.7.1 In-house operations and application M&O/enhancement

In-house operations and maintenance/enhancement refers to hosting the transfer system in the CDPH facilities. The great majority of operations and M&O/enhancement services would be performed by CDPH ITSD staff. M&O of the current system(s) is technically in-house; however the support is distributed across multiple State entities. The ISIS, VWIX, and WIX applications are hosted at the State Data Center (OTech), maintained by CDPH ITSD, and user tested by CDPH IT staff. Enhancements are conducted by contracted personnel.

*For more information, see approved California Feasibility Study*

The advantages of this alternative are:

- It would enable California to directly manage its technical support resources. Continuity of support would be more predictable;
- It would enable California to leverage existing CDPH IT resources – infrastructure, network and technical support – and more easily implement data sharing with other State systems; and
- The WIC system would be covered by California security and business continuity and disaster recovery plans.

The disadvantage of this alternative is:

- California WIC and ITSD would need to recruit, train and retain M&O and enhancement staff with modern technical expertise, knowledge of the transfer system as well as of the WIC program.
- There is no existing Service Level Agreement (SLA) or Memorandum of Understanding (MOU) between any of the parties, resulting in a collaborative structure that is loosely defined. California WIC would be dependent upon CDPH to determine service level and support costs to be provided by CDPH ITSD.

#### 7.2.6.7.2 Outsourced operations and application M&O/enhancement

Outsourced operations and maintenance/enhancement refers to retaining the system contractor to perform this function. In this arrangement, the system hardware and data could be located at the DDI contractor's or the State data center.

The advantages of this alternative are:

- The DDI contractor has, at least initially, the most knowledge of the system;
- The DDI contractor would have extensive knowledge of WIC business process from supporting its other WIC program customers;
- The associated outsourced services based on SLAs may cost less than the current system support costs paid by the WIC Program to CDPH ITSD;
- The DDI contractor's SLA would require a determined level of service for a specified cost allowing the State to decide periodically whether to continue or discontinue the contract in favor of another competitive contractor; and
- It would enable California WIC to directly manage its technical support resources.
- This is a best practice conducted by other states, almost universally at a minimum during the warranty period.

The disadvantages of this alternative are:

- The security support and the business continuity and disaster recovery plans and support for the system may be under the DDI contractor's control; and
- California WIC would be dependent upon viability of the system contractor and approval of CDPH contract oversight for continuing support.

#### 7.2.6.7.3 In-house operations and outsourced application M&O/enhancement

In-house operations and outsourced M&O/enhancement refers to hosting the system in the CDPH facilities. The operations would be performed by CDPH IT staff. The CDPH IT Help Desk would continue to provide program and first and second level application support to the users. The M&O/enhancement services, including third level user and application technical support, would be performed by the system contractor. CDPH ITSD would continue to provide network support.

The advantages of this alternative are:

- M&O/enhancements are conducted with the current system in the same manner;
- Enables CDPH to directly manage its technical support resources;
- CDPH will be able to better leverage existing IT resources – infrastructure, network, and technical support – and more easily implement data sharing with other CDPH systems;
- The WIC system would be covered by CDPH security and business continuity and disaster recovery plans;
- The CDPH IT Help Desk would continue to provide program and first and second level application support to the users;
- The DDI contractor would be uniquely qualified through its experience of developing and implementing the transfer system to provide an initial period of M&O/enhancement services; and
- It would provide time for California WIC to evaluate its options for continuing M&O/enhancement support from the DDI contractor or bringing this function in-house.

The disadvantages of this alternative are:

- It may cost more than the complete in-house or outsourced alternatives;
- California WIC would be dependent upon viability of the DDI contractor and approval of CDPH contract oversight for continuing support.
- California WIC would be dependent upon CDPH to determine service level and support costs to be provided by CDPH ITSD.

#### 7.2.6.7.4 Conclusion

Outsourced operations and M&O/enhancement is consistent with other states, with contractor support being a best practice during the warranty period. The system contractor is more capable of handling maintenance and enhancement

in the short term while any modifications needed are still under contract for the first one to three years after rollout. Long term decisions regarding the continued M&O of the new system will not be determined at this time.

### 7.3 Schedule of Major Milestones and Deliverables

This section provides a listing of milestones and deliverables expected in the project. This section also includes an indicator of primary responsibility and an approximate timeframe for each activity.

The project cycle, from procurement to statewide rollout, lasts approximately 114 months. The actual dates depend on the document completion and approval cycle. However, the budget was developed with the planning tasks that began June of 2010.

**Figure 6: CA WIC MIS Project Key Milestones**

KEY TASKS/ MILESTONES	PRIMARY RESOURCES	DURATION
<b>Planning Phase</b>		
(Full) IAPD Development	Contracted, FNS Approval	69 months
IAPD/FSR Development	State, State Approval	
RFP Development/ Evaluation Methodology <i>*Decision point: will the State implement, operate, and/or maintain the system in house or contract? Which transfer system will be selected? Which operational approach will be used?</i>	State, FNS & State Approval	
RFP Release	State	
Vendor Proposals	Bidders	
Contract	State, FNS & State Approval	
<b>Design Phase</b>		
Project Initiation	State or Contractor	6 months
Final Work plan	State or Contractor	
Planning Documents	State or Contractor	

KEY TASKS/ MILESTONES	PRIMARY RESOURCES	DURATION
Requirements Validation <i>*Decision point: will additional modifications be required through the established change control process?</i>	State and Contractor, if applicable	
System Requirements and Design Documents	State or Contractor	
<b>Development Phase</b>		
Business Process Review/ Policy Adjustment	State	12 months
System Modification, Technical Testing, and Revisions	State or Contractor	
Site Readiness Checklists	State or Contractor	
Equipment Procurement (Pilot)	State, Local WIC Agencies	
Operational Planning, Documentation, and Training Materials	State or Contractor	
Data Conversion <sup>27</sup>	State or Contractor	
Central Operations Preparation	State or Contractor	
User Acceptance Testing <i>*Decision point: proceed to pilot only if UAT performance criteria have been achieved.</i>	State or Contractor	
<b>Pilot Operations Phase</b>		
Training (Central Office- IT)	State or Contractor	5 months
Training (Pilot Site and State)	State or Contractor	
System Pilot Test	State or Contractor	
Pilot Evaluation and System Modification/ Retesting <i>*Decision point: proceed to rollout only if pilot performance criteria have been achieved.</i>	State or Contractor	
<b>Statewide Rollout Phase</b>		

<sup>27</sup> Data conversion will be tested during the development phase, but will also take place as part of pilot and rollout activities.

KEY TASKS/ MILESTONES	PRIMARY RESOURCES	DURATION
Equipment Procurement (Statewide)	State Approval, State, Local WIC Agencies	22 months
Statewide Training	State or Contractor	
System Rollout	State or Contractor	
System Documentation	State or Contractor	
<b>Maintenance &amp; Operation Phase</b>		
Initial 1 Year Warranty	Contractor, if applicable	1 year
Extended Warranties	Contractor, if applicable	1 year each, up to 3 years

## 8 Proposed Budget

*Identifies estimated State and contractor costs associated with the implementation phase.*

### 8.1 Overview

This section presents the estimated budget needed for the transfer and modification of a system to the California WIC Program. For budgeting purposes, the core system architecture, with modifications, is used to estimate costs related to equipment, personnel, training, and the technical services contract.

### 8.2 Budget Spreadsheets

The budget spreadsheets are available in *Appendix D: California Transfer Budget Spreadsheets* and in the companion excel file called “*California WIC IAPD Budget Spreadsheets Final v2.xls*.”

### 8.3 Assumptions

The budget spreadsheets were developed based on the following assumptions:

- California WIC will transfer and implement an available system with modifications;
- The transfer system will include base functionality as detailed within the FReD. Additional functionality to be added to the base system as detailed in the CA functional requirements;
- Implementation support such as system modification and configuration, training, QA, testing, and conversion will be outsourced. The State will provide oversight, project management and support as needed;
- The transfer system may be hosted at the State data center; basic system support and maintenance (i.e. system monitoring, system and database administration, site support, etc.) will be provided by State staff;
- An assessment may be made to determine if the California telecommunication infrastructure will be adequate for transfer system operations. The estimate transfer budget starts upon hiring an implementation contractor(s) and concludes after statewide rollout<sup>28</sup>;

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<sup>28</sup> Currently there are no additional telecommunications costs included in the implementation budget for a transfer MIS. The State has a project implementing a statewide LAN (CGEN) that is expected to be completed prior to roll out of the transfer MIS and will provide adequate telecom.

- Cost for equipment is based upon current California data center costs for hardware;
- Infrastructure and Requirements development with the implementation contractor is estimated to start April 2016;
- The project's estimated duration from infrastructure and requirements development to state-wide roll out is 45 months;
- The system will use Oracle, or an equivalent, for the back-end database. State will purchase Oracle licenses for the project as needed<sup>29</sup>;
- Oracle license cost is assumed to be decreased by a 40% bulk discount from standard price of \$30,000 per quad processor; and,
- The annual Oracle license maintenance costs are estimates at \$5,500 per quad processor.

#### 8.4 Summary Budget

The following table presents the summary budget for the project.

**Figure 7: Project Summary Budget**

TYPE	COST
<b>One-time/ Startup Costs</b>	<b>\$28,714,408</b>
<b>Ongoing (monthly) Costs</b>	<b>\$472,951<sup>30</sup></b>

#### 8.5 Detailed Budget

The following table presents the total budget for the project for each Federal fiscal year (FFY) by quarter. Detailed line items are provided in the budget spreadsheets available in *Appendix D: Transfer Budget Detailed*

<sup>29</sup> For the last three bullets: Oracle is used as the database for some of the potential transfer systems, the other being SQL. Oracle is more expensive because of licensing costs. Since the state has not specified use of Oracle or SQL it is unknown which will be in the system that is ultimately selected. Because Oracle is a standard quality and price it was used for ongoing maintenance costs, it was used in the cost estimates. Note that the cost of the Oracle license would be a cost to the State outside of the cost of procuring a system.

<sup>30</sup> This estimated cost is the last month of rollout costs for the project.

**Figure 8: Project Quarterly Budget**

FFY	QUARTER	PROJECT COSTS	TOTAL FFY COST
2014	1	\$117,518	<b>\$780,436</b>
	2	\$122,973	
	3	\$122,973	
	4	\$416,973	
2015	1	\$502,520	<b>\$2,010,081</b>
	2	\$502,520	
	3	\$502,520	
	4	\$502,520	
2016	1	\$498,883	<b>\$3,463,399</b>
	2	\$497,065	
	3	\$1,420,661	
	4	\$1,046,790	
2017	1	\$1,517,961	<b>\$8,532,545</b>
	2	\$1,434,105	
	3	\$2,694,075	
	4	\$2,886,404	
2018	1	\$1,632,032	<b>\$6,286,418</b>
	2	\$1,516,847	
	3	\$1,554,673	
	4	\$1,582,866	
2019	1	\$1,482,421	<b>\$6,154,693</b>
	2	\$1,580,524	
	3	\$1,511,224	
	4	\$1,580,524	
2020	1	\$1,486,837	<b>\$1,486,837</b>

FFY	QUARTER	PROJECT COSTS	TOTAL FFY COST
<b>Total Start Up Costs</b>			<b>\$28,714,408<sup>31</sup></b>
<b>Ongoing costs (Monthly)</b>			<b>\$472,951</b>

### 8.6 Estimated Contractor Costs

The following table presents a summary of the estimated contractor costs for the project. Detailed line items are provided in the budget spreadsheets.

**Figure 9: Project Contractor Costs**

TYPE	COST
One-time/ Startup Costs	<b>\$7,290,806</b>
Ongoing (monthly) Costs <sup>32</sup>	<b>\$51,527</b>

### 8.7 Personnel Costs

The following table presents a summary of the estimated State personnel costs for the project. Detailed line items are provided in the budget spreadsheets.

**Figure 10: Project State Staff Costs**

TYPE	COST
One-time/ Startup Costs	<b>\$9,604,783</b>

### 8.8 Ongoing Costs

The following table presents a summary of the estimated State annual costs for the transfer system. Detailed line items are provided in the budget spreadsheets for ongoing monthly costs for maintaining the transfer system for the first one to three years. The transfer system ongoing costs were estimated based on costs to support equivalent systems while taking into account California salaries. Scalability needed for the system does not translate into an increased cost for ongoing M&O and support of the system. The estimate of approximately \$3.3 million (see Figure 11 below) is consistent with surveyed states actual ongoing

<sup>31</sup> Total is slightly different than what is noted in the "Transfer Budget Detail" due to rounding differences.

<sup>32</sup> This estimated cost is 50% of the last month of roll out costs for the DDI contractor.

expenses reported. *See approved California Feasibility Study and Appendix G: System Comparison* which shows that current modern WIC systems cost approximately \$2-4 million to maintain.

While the estimated cost for ongoing expenses is consistent with industry trends, California WIC anticipates additional expenses will be incurred to support indirect California technology infrastructure and staffing costs. At this time, it is not possible to identify which expenses will remain, decrease or increase with the change in systems. CA WIC will have a new system that may reduce the need and cost for three systems (ISIS, VWIX, WIX). In this analysis, the fixed, semi-itemized costs are estimated at \$8,613,360<sup>33</sup>. Detail of these annual breakdowns can be seen in *Appendix D: Transfer Budget Spreadsheets and Appendix G: California Transfer System Ongoing Costs* to see how the estimated costs were calculated.

**Figure 11: Project Ongoing Costs, for Years One to Three**

TYPE	COST
Warranty Period Costs for maintaining the transfer system	\$548,436
Ongoing Estimated System Costs for CA WIC	\$6,697,924
Overhead	\$1,367,000
<b>Total New System Costs</b>	<b>\$8,613,360</b>

<sup>33</sup> Current version is 4.0 from October 2007. Available at: <http://www.cdph.ca.gov/programs/cpns/Documents/Network-PL-08-02-DPH-ISO-Project-Requirements.pdf>

## 9 Cost Allocation Plan

*Describes the methodology used to determine the share each entity will pay in a joint implementation effort, if applicable.*

According to the USDA FNS Handbook 901, cost allocation is a procedure that State agencies use to identify, measure, and equitably distribute costs for systems among the various agencies that will both use and benefit from the system. Cost allocation requires the identification of two types of costs—direct costs (i.e., costs for system functions or activities benefiting only one State or Federal program) and shared costs (i.e., costs for system functions or activities that benefit two or more State or Federal programs).

The transfer system is intended to directly and solely support the operations of the California WIC Program. A review of the proposed project budget found that the implementation phase expenses are all direct costs of system functions or activities benefitting only California WIC. All expenses will be supported by documentation consistent with the appropriate Federal guidelines; e.g., continuous time logs. This same approach will be followed during the M&O phase, following the implementation of the transfer system. Based on the above, there is no need to include a Cost Allocation plan in this IAPD.

## 10 Security Planning

*Describes the approach for assuring the physical, electronic, and operational security of the system.*

The State of California has two primary documents dictating security planning. The first is the Information System Security Requirements for Projects (ISO/SR1)<sup>34</sup>. The second is the CDPH Information Securities Policies<sup>35</sup>. The Information Security Office (ISO) is responsible for maintaining and updating these policies. Updated versions of these documents are posted to the Internet as needed.

The ISO/SR1 provides the minimum security requirements required for projects governed and/or subject to the policies and standards of the CDPH. Projects that intend to deploy systems/applications into the State system infrastructure or will consume State information system resources are also subject to these minimum security requirements.

This document is intended to assist CDPH and its service consumers in understanding the criteria CDPH will use when evaluating and certifying the system design and security features and protocols used by project solutions consuming State resources. The security requirements herein will also be used in conjunction with the ISO's compliance review program of its information system services consumers. This document will serve as a universal set of requirements which must be met regardless of physical hosting location or entities providing M&O responsibility. These requirements do not serve any specific project nor do they prescribe any specific implementation technology. The CDPH policies seek to regulate the security, privacy, integrity, availability, accountability and provide the means to audit its information. This policy provides a general framework that shall be followed when handling Department information and using Department resources. *See Appendix E: Information System Security Requirements for Projects (ISO/SR1)*

The State of California requires all computer information systems and applications to operate in a secure manner and comply with State and Federal security standards and regulations including the SAM and CISO standards and guidelines. The transfer system will be required to integrate access controls,

<sup>34</sup> Current version is 4.0 from October 2007. Available at:

<http://www.cdph.ca.gov/programs/cpns/Documents/Network-PL-08-02-DPH-ISO-Project-Requirements.pdf>

<sup>35</sup> Current version is from August 2010.

identity management, and security into the enterprise directory environment. California intends to fully comply with the requirements identified in Handbook 901, Section 8: Security.

The requirements in this section emphasize some of the items within California security standards and also describe various capabilities to be provided in terms of security in the WIC Transfer System. The system will ensure several levels of security within the transfer system including, but not limited to, the following features:

- Unique logon for each user and programmed to not reuse logon ID's for subsequent users.
- Required passwords that will expire on a staggered schedule and that can be reset at any time by appropriate personnel.
- Audit trails for all database updates (add/change/delete) by logon ID (or batch update identifier) with date and time of the change.
- Role-based access to data and to the applications software; the system shall employ a security system that restricts access to varying hierarchical levels of data and functions/screens; therefore the security system will restrict access to data on a need to know basis and restrict functions based on an individual user profile.
- Capability to set-up security profiles for system users.
- Maintain a list of users and their security profiles for role based application access security.
- Capability to perform updates to application security profiles and staff terminations.
- Provide read and write controls at the individual file or window level to protect sensitive data.
- Ensure that the integrity and confidentiality of recipient and all other data is protected to prevent the release of information without proper consent.
- Provide version control for recording any change to a software module or subsystem.
- Physical security for the server hardware and software include additional features designed to safeguard processor site(s) through required provision of fire retardant capabilities, as well as smoke and electrical alarms, monitored by security personnel on a twenty-four hours a day, seven days a week basis.

## 11 Disaster Recovery and Continuity of Operations Plan

*Describes disaster recovery and continuity of operational plans.*

CDPH ITSD has established a Backup and Recovery (B&R) plan for servers. B&R is the combination of manual and machine procedures that can restore lost data in the event of hardware or software failure. Routine backup of databases and logs of computer activity are part of a B&R program.

Backups usually copy data to different portable media in order to provide off-site storage to complement Business Continuity or Disaster Recovery Planning (DRP). Although DRP does incorporate data backup, it also includes alternate hardware, facilities, and telecommunications. Conventional B&R, on the other hand, uses the original hardware, facilities, and telecommunications. Under Data Center policy ITSD will be responsible for all storage and maintenance of the data. Off-site storage of Campus backup data will be arranged with Records Management.

California WIC has a Disaster Recovery and Continuity of Operations Plan available for FNS review, however due to the confidential nature of the information contained within the document; it was not incorporated into this IAPD as it will be widely circulated.

## 12 Training Plan

*Outlines how all system users, including technical, State agency, end users, and clients, as applicable, will be provided with training on the application.*

California WIC plans to conduct, with the assistance of the DDI contractor end user training in-house. Training events shall include:

- *Pre- UAT Training.* This onsite classroom training will take place just prior to UAT. It shall include descriptions of how users will run test scripts, procedures for documenting issues, and how follow-up will occur.
- *State Agency Users.* This onsite classroom training will take place prior to pilot. It will instruct State- staff on all areas of the system, including local WIC agency processes and State program administration processes. The training may be divided among functional areas, such as Financial Management and Vendor Management. Training manuals will be provided to outline the procedures needed to operate the system in the California environment.
- *State IT Staff.* This onsite training will take place with technical staff and focus on the operation of the system. Training manuals will be provided to outline the procedures needed to operate the system in the California environment.
- *Local WIC Agency (IT) Coordinators.* As many set up features of the system will be managed at the local level (such as user set up for access clinics and roles and scheduler templates), it is critical that the CDPH Project Manager (or designated “superusers”) have in depth training on these functions prior to pilot for the select site(s)) as well as prior to rollout for other sites.
- *Local WIC Agency Users.* The week prior to rollout (pilot or statewide rollout), the local WIC agency sites will close for user training and system set up which will include schedule template set up or entering schedule information into the live system. The duration of the closure will depend on the training approach proposed by the DDI contractor, but is estimated to be three to five days. The training is expected to include demonstrations and hands-on exercises to ensure that staff learns the concepts necessary to operate the transfer system. In addition, staff will learn how to operate the external participant interface to be able to educate participants and provide assistance to participants if needed.

- *Retail Vendors.* The transfer system will include a vendor portal that will encompass new processes for vendors to access State data and information. Training on these new processes will begin several months prior to rollout and include interactive training included as part of new vendor and reauthorization training. Due to California WIC's large vendor community technology based training such as web classes and educational tutorials may be utilized to reach all effected vendors.

### 13 Request for Waiver of Depreciation

*Provides a means for expensing capital expenditures, rather than depreciating them, to financially benefit the Federal Government. A waiver of depreciation is a written request to change the method of accounting and claiming for the cost of equipment. The Federal cost circulars require that individual items of equipment costing more than \$25,000 per item must be charged over the useful life of the equipment. (Useful life is as proscribed by the Internal Revenue Service. Workstations have a useful life of 3 years, while mainframes are normally charged over a period of 7 years) The written request asks for FNS permission to charge the entire cost of the equipment acquisition at the time of acquisition (more commonly known as "expensing"). Unless FNS permission is received, the equipment cost must be based on depreciation over the life of the equipment. This component is optional based on individual circumstances.*

A waiver of depreciation is requested. The equipment will be procured using grant funding that is outside the WIC operating grant and it would consequently be inappropriate to burden the Nutrition Services Administration (NSA) grant with the depreciation of this equipment. It is believed that the funding to purchase the equipment will be available within the current-year appropriation to allow expensing within the period of acquisition.

## 14 Help Desk Plan

The user will have support through system functions and technical assistance. California WIC will continue to have trained analysts to provide a Help Desk. The analysts will have administration training to operationally support the application.

### 14.1 Maintenance/Operations CDPH IT Help Desk

- *First level* - Support may continue to be maintained by the CDPH IT Help Desk. Analysts will serve as a point of contact for internal and external customers to troubleshoot all issues related to the transfer system, account administration, hardware, and printers. The Help Desk will answer phone calls as well as document call information and actions taken to resolve or escalate the issue. Support is also provided as “how to” guidance to local WIC agencies, vendors, and participants. Today, California WIC receives 650 calls and 200 emails on average per week.
- *Second level* – If the CDPH IT Help Desk staff cannot resolve a call, the issue is escalated to second level support provided in a separate CDPH IT system support unit which focuses ongoing work primarily on system testing. Connectivity and Hardware issues that are not remedied in the first level support are escalated to external support at ITSD or the California Department of Technology Services (OTech). Approximately 20 cases are currently escalated to second level support each month.
- *Third level* – The DDI and/or CDPH ITSD is required to have staff available to provide services based on the service level during specific time frames as determined with the State. Contact to the vendor will be channeled through designated individuals that will be formally identified and periodically amended.

### 14.2 Project & Warranty period, DDI Help Desk

The DDI contractor will provide support during the project. The State shall determine what response/resolution timings is appropriate with DDI contractor support and will work with the contractor to negotiate these requirements.

DDI Contractor support expectations:

**Figure 12: DDI Contractor Support Expectations**

VENDOR	DEFINITION	RESPONSE TIME	RESOLUTION TIME	RESOLUTION
<b>Level-1</b>	The Application Package Programs do not permit use of core functionality on a system wide basis and a bypass or workaround is not available.	Response Time: Contractor shall respond by telephone or electronic means to the State within [Elapsed time –IE 1 hour] of initial notification to Vendor.	Contractor shall provide its best efforts to effect a resolution within [Elapsed time-IE-12 hours] of the initial notification.	Contractor shall provide a program correction or program patch to the California WIC in order to resume operations. Contractor shall treat error correction activity of this nature a highest priority basis, until a program correction or patch is provided.
<b>Level-2</b>	Significant portions of the Application Package Programs are severely impaired to the extent that major functions are inoperative. Major functions being classified as comparable to whole modules of the application	Contractor shall respond by telephone or electronic means to the State within [Elapsed time –IE 2 hour] of initial notification to Vendor.	Contractor shall provide its best efforts to effect a resolution within [Elapsed time – IE 72 hours] hours of initial notification to Vendor.	Contractor shall provide the State with a program correction, program patch or a procedure to bypass or work around the error condition in order to continue operations. If a bypass procedure is utilized, Contractor shall continue error correction activity until a program correction or program patch is provided.

### 14.3 *State Responsibilities*

#### 14.3.1 **General Responsibilities**

Without cost to the DDI contractor, the State shall provide full co-operation and assistance to enable the DDI contractor to provide the support and maintenance or any migration services. In particular, and without limiting the generality of the foregoing, the State shall:

- (a) Provide the Help Desk noted in 14.1.
- (b) Maintain, at all times, a separate computer environment at the State's premises that will functionally reflect the Production system and contain, at a minimum, a representative sample of WIC data and, subject to the State's security requirements, grant the vendor access thereto. This environment is necessary in order to install all support releases, technological releases, associated patches and defect corrections for acceptance validation and regression testing (as appropriate) prior to promotion to the Production system;
- (c) Perform all database administrative duties as may be required for the continued optimal performance of the system including backup and recovery, monitoring table space and disk usage levels, object extents;
- (d) Report problems, defects, or faults within such time, on such forms and with such particularity as the DDI contractor may reasonably request;
- (e) In the event of an emergency or crisis, and at the specific request of California WIC, the State will provide the DDI contractor with electronic or other access to the Production system for purposes of applying a Database or data corruption fix on the understanding that, except for negligence on the part of the vendor, the vendor assumes no liability resulting from such emergency or crisis access;
- (f) Ensure that its personnel are fully trained in the use and operation of the MIS (Application Package); and,
- (g) Follow the procedures for use of the MIS (Application Package) specified by the DDI contractor during any system administration training provided by the DDI contractor or in Documentation.

### **14.3.2 Timely Implementation**

The State understands and agrees that all defect corrections, support releases and technological releases, as well as any related database scripts, should be promptly implemented in the production system. The State acknowledges that its failure to so implement such defect corrections, support releases or technological releases may render the MIS unusable or non-conforming to documentation.

### **14.3.3 Maintain Hardware**

The State acknowledges and agrees that maintenance of all computer hardware, communications equipment and/or software, cabling, peripherals and any other hardware equipment necessary for the operation of the transfer system shall be the exclusive obligation of the State. In particular, the DDI contractor will not be responsible for providing any assistance required as a result of any:

- (a) Modification, change or upgrade to any hardware or software (other than any modification, change or upgrade made by the DDI contractor to the transfer system; or
- (b) Damage to the transfer system's programs by accident or other external cause, the fault or negligence of any party other than the DDI contractor, or use by the State in other than its normal and customary manner.

# CA WIC Feasibility Study, Alternatives Analysis and Cost Benefit Analysis

***Version 1.6***

***August 29, 2014***

***Submitted to:***

Ms. Ronna Bach  
Cc: Mr. Mike Drew  
Ms. Mary S. Lee

U.S. Department of Agriculture  
Food and Nutrition Service  
Supplemental Nutrition Program  
Western Region

***Submitted by:***

Lisa Kawano, Interim Division Chief  
California Women, Infants and Children (WIC)  
Supplemental Nutrition Program

## Transmittal Letter

*Transmittal Letter—Cover letter, signed by the appropriate State official committing State resources.*

January 17, 2014

Dear Ms. Bach:

I am writing to submit the Feasibility Study component of the California (CA) Women, Infants, and Children (WIC) Supplemental Nutrition Program, as part of the approval process to replace the program's management information system.

This letter is accompanied by the following planning documents for your review and approval: Feasibility Study / Alternatives Analysis / Cost-Benefit Analysis and Capacity Study.

Please send the approval, review comments, and questions to Michael Issertell (Michael.Issertell@cdph.ca.gov) who will be compiling our responses and formal documents.

If you have any questions, please call me at (916) 928-8806.

Sincerely,

Lisa Kawano  
Interim Division Chief  
Women, Infants and Children (WIC)  
Supplemental Nutrition Program

cc: Mr. Mike Drew  
Program Specialist  
Supplemental Nutrition Program

Ms. Mary S. Lee  
Program Specialist  
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## Document Information

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Version #	Revision	Date	Author	Description of change
1.0	Draft		MAXIMUS WIC Team	First Draft, reviewed by CA WIC project management
1.0	Draft		MAXIMUS WIC Team	For final review
1.1	Final	10/2011	CA WIC	Final review and edits, Final document submitted to USDA
1.2	Updated Draft	7/2/2011	CA WIC	Updated text for re-review prior to re-submission
1.3	Final	7/xx/2012	CA WIC	Final resubmitted
1.4	Major Revision	3/29/2013	CA WIC	CDPH Revision
1.5	Revised Final	1/17/2014	CA WIC	Revisions based on feedback received from USDA
1.6	Revised Final	8/29/14	CA WIC	Revised to update Department of Technology Independent Project Oversight Budget

## 1 Executive Summary

**Executive Summary**—Describes at a high level the business need for a new information system.

The Women, Infants, and Children (WIC) Supplemental Nutrition Program is a public health nutrition program administered by State Agencies for the United States Department of Agriculture's Food and Nutrition Services (USDA FNS). The CA WIC Program (CA WIC) provides food benefits and nutrition education to approximately 1.5 million active participants each month<sup>1</sup> at 650 sites, administered by 84 local agencies. All WIC food benefits are issued as paper checks, or food instruments (FIs) which participants exchange for food at local retailers<sup>2</sup>. Approximately 5.4 million checks are processed each month.

CA WIC currently uses the Integrated Statewide Information System (ISIS) for information management. ISIS was originally transferred from Florida and is a mainframe transactional "green screen" application. Before a decision can be made to acquire, develop, and deploy a new Management Information System (MIS) statewide, CA WIC must prepare its stakeholders and its own organization to support the new technology. Additionally, it must evaluate the potential start-up and operational costs as well as assess the risks associated with the available MIS technologies.

Any WIC State Agency requesting funding to enhance current systems or implement a new transfer<sup>3</sup> system must submit an Implementation Advance Planning Document (IAPD) which includes a Feasibility Study, Alternatives Analysis, and Cost Benefit Analysis (CBA) to the USDA for review and approval. This document provides the required documentation needed for CA WIC to enter the next phase of the planning process for a next generation MIS.

This document presents the information gathered in the analysis of MIS options available to the State, including:

- **Maintain the Status Quo:** keep the current system and implement only USDA mandated modifications.
- **Modify the Current System:** upgrade the current system to meet program and technical requirements.

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<sup>1</sup> CA WIC Participant count as of June 2011.

<sup>2</sup> CA WIC calls grocers or food retailers "Vendors."

<sup>3</sup> Transfer system refers to either a State Agency Model (SAM) or a non-SAM system.

- **Custom Development:** develop a comprehensive new system from the ground up.
- **Transfer/Modify a System:** transferring a WIC data system currently supporting another state's WIC program and modifying it to meet CA WIC requirements.

When California began its planning process, the USDA MIS planning process included two recommended tracks: select a State Agency Model (SAM) or a non-SAM system. The purpose of the SAM initiative is to make available three model systems with sufficient flexibility that can, with minimal enhancements and modifications, be transferred to other states. To date, three systems are in development through the SAM initiative through the Successful Partners in Reaching Innovative Technology, or **SPIRIT**, which was originally comprised of 13 Inter-Tribal Organizations and now includes the **Mountain Plains States Consortium** or **MPSC** (Colorado, Utah, and Wyoming) and **Crossroads** (North Carolina, Virginia, West Virginia, and Alabama).

The Transfer/Modify a System alternative was further refined to assess the following operational approaches:

- **Transfer State Agency Model (or Western States) Consortium:** CA WIC would transfer a system and participate in an established SAM Users' Group<sup>4</sup>.
- **Transfer no Consortium:** California would transfer a system, but not participate in a Users' Group.

At the time that the analysis for this feasibility study was conducted and this document developed<sup>5</sup>, there were no SAM systems in the planning process available for consideration. As such, the USDA gave California approval to complete the planning process without formally identifying a system. Therefore, California seeks to procure a system based on the State's specific requirements in accordance with the SAM initiative. Ultimately, a vendor can propose to transfer one of the available SAM systems or another modern WIC MIS modified to address California's specific modifications.

The **Transfer/Modify an existing system** alternative was determined to be the best option for California, as demonstrated by the Cost Benefit Analysis (CBA) in

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<sup>4</sup> Users' Group is also called a Consortium.

<sup>5</sup> This document's development occurred between June 2010 and October 2011, minor updates to the document in June 2012 before submission.

this document, as well as analysis of the State's requirements and goals for the future. It is assumed that the California will acquire services from a qualified system vendor through a competitive procurement. The CBA results indicate that the **Transfer/Modify** option would cost less than modifying the current system or the custom development option. Through the Alternatives Analysis, common elements of several existing WIC systems were used to form the abstract of a new transfer system alternative. The **Transfer/Modify** option was analyzed at a general level, but this report will utilize Michigan's platform, or MI-WIC system, as a baseline in order to compare the technical aspects of implementing a **Transfer/Modify** option for California. Specifically, the MI-WIC system was chosen because it is a modern system that has been successfully while sufficient historical data exists in order to extrapolate California-specific assumptions. No matter which system is ultimately chosen for our State, it is assumed that modifications will be made to meet our specific needs.

## 2 General Information

- *Provide a brief description of the present system.*
- *Is the present system integrated with another health or public assistance program?*
- *What is the age of the current system? Does it meet the functional requirements of the program(s)?*
- *What Federal, State, and local programs will the new system serve?*
- *Will the system need to interact with other systems and organizations?*
- *Which office within the State will have Primary responsibility for coordinating the project?*
- *What are the roles of other offices that will be involved(e.g., IT, financial office, Attorney General's office, other health or human services programs)?*

### 2.1 Present System

CA WIC developed ISIS in 1995 in coordination with California Department of Health Services<sup>6</sup>. ISIS is the core application, written in COBOL, that is augmented by two primary auxiliary systems, Vendor WIC Information eXchange (VWIX) and the WIC Information eXchange (WIX), as well as numerous non-integrated supplemental technical tools such as Microsoft Excel and Access. California's system(s) include:

- **ISIS (On-line and Batch):** *See Software Characteristics in 4.3.1.6.*

#### Auxiliary Systems

- **WIX:** WIX provides reporting capabilities to State and Local WIC agency staff in the form of 23 standard reports and an ad hoc reporting functionality which allows staff to create custom reports. Local WIC agency staff access WIX through a web browser and use SAP Business Objects (BO) to run reports populated with data supplied by database queries. The reporting database is segmented into several BO universes, each designed to meet a specific reporting need. The BO universes are created by presenting ISIS mainframe data in a user-friendly manner designed to facilitate report creation. IBM's Query Management Facility (QMF) is also used to supplement this reporting

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<sup>6</sup> CA WIC is now under the California Department of Public Health (CDPH).

environment by allowing advanced users to write their own SQL queries and execute them directly, avoiding the BO interface.

- **Vendor WIC Information eXchange (VWIX):** Grocers seeking reimbursement for accepting CA WIC FIs, submit the FI serial numbers by submitting File Transfer Protocol (FTP) files, and entering the serial numbers using the VWIX web interface. VWIX was developed using Microsoft's Internet Information Server (IIS) platform and was written in ASP.NET and VB.NET programming languages.

#### Supplemental Technical Tools

- KATE: Telephone reporting system is available to vendors for submission of FI serial numbers, in lieu of submission on VWIX.
- IBM DB2 Query Management Facility (QMF)
- Microsoft Excel Spreadsheets and Microsoft Access Databases
- WICWorks Website

*For additional detail on the elements of the current system(s) see Appendix A: Business Capacity Study.*

#### *2.2 Integration with another health or public assistance programs*

ISIS is linked with Medi-Cal<sup>7</sup> to determine a participant's adjunctive eligibility. Adjunctive eligibility occurs when a Medi-Cal participant meets specific criteria that allows for automatic WIC eligibility. The link, or interface, is limited functionally sending a query from ISIS to the Medi-Cal Eligibility Data System (MEDS) database to determine whether a person is in their system and categorized with a valid code (receiving Medicaid benefits) to determine if they are adjunctively eligible. Minimally, all the current functionality that is available, such as this interface, will need to be available upon implementation of a new system.

#### *2.3 Current system age & ability to meet functional requirements*

Although the ISIS system was based on a transfer system from Florida, 95% of the system was custom developed during or soon after implementation. Over the last seventeen (17) years, the system has been extensively modified and maintained by CDPH Information Technology Service Division (ITSD) staff. The system has been enhanced and modified to meet all Federal requirements and evolving laws. CA WIC's technical environment employs several separate

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<sup>7</sup> Medi-Cal is California's Medicaid program. MEDS is Medi-Cal's information system.

systems: ISIS, WIX, and VWIX. Each of these applications was introduced and modified during different time periods and as a result, the system(s) are comprised of widely dissimilar programming languages, system architectures, and interfaces. CA WIC also continues to conduct many business processes manually or through the creation of single-use applications. With the exception of local WIC agency staff, State of California (State) WIC Program staff work primarily outside the information system, which results in data records and statistics that are captured and maintained outside the MIS environment. Integrating the mainframe external data to produce reports, track work efforts, and respond to program changes or external requests is a time consuming and involved process.

The USDA has provided guidance on the elements of an adequate WIC information system in USDA FNS Model for WIC Information Systems Functional Requirements, or "FReD". The USDA has allowed CA WIC to be non-compliant with several mandates, allowing time for CA WIC to complete the MIS planning process, with the understanding that specific required and suggested functionalities will be available at the conclusion of the MIS planning project and upon implementation of the new system. CA WIC's non-compliance is formally documented in the USDA FNS annual State Technical Assistance Review (STAR) reports. *Applicable non-compliance information can be found in Section 4.4.1: Maintain the Status Quo.*

Functional limitations not documented in the STAR reports; but significant to the operation of the program include:

- Limited functionality and capabilities at the State WIC program and local agencies in creating reports, including ad hoc management reports.
- Lack of grant and budget management functionality, including program expenditures.
- Limited nutrition education support, requiring staff to manually complete dietary assessment and dietary risk codes with no electronic counseling protocols, dietary assessments, or nutrition plans.
- Lack of food package proration functionality.
- Lack of breastfeeding case management support.

#### *2.4 Programs the new system will serve*

The new transfer system will serve the CA WIC program. In addition, CA WIC also administers two additional USDA grant programs, the Farmers' Market Nutrition Program for Women and Children (FMNP) and the Breastfeeding Peer

Counselor Program (BPC). While FMNP is a separate program from WIC, BPC does fall under the WIC program. The administration of both of these programs are not currently supported by the system(s).

### *2.5 CA WIC System interaction.*

CA WIC seeks to maximize the ability to partner with other programs and exchange appropriate data through interfacing with other information systems. Currently, ISIS has only a single one-way interface with MEDS. The replacement system is required to have the capabilities to interact with other systems and organizations for statistical purposes and reduction of duplication when applicants are participating in several programs simultaneously. This functionality could be achieved through standard interfaces or data exchanges.

The replacement system will need to interact with other systems and organizations such as:

- The Medi-Cal Program to share participation information to determine adjunctive eligibility.
- The CalFresh<sup>8</sup> Program to share vendor information, such as disqualifications.
- The California Immunization Registry to share immunization status.
- The Commodity Supplemental Food Program (CSFP) to share information to prevent dual participation.
- A third-party financial processor to process and document FI (or EBT) redemption.<sup>9</sup>
- A public facing website to provide self-service functionality for participants and vendors.

Additionally, the replacement system must provide the following functionality; whether internally or through external interfaces:

- Online Education
- National Universal Product Code (UPC) and Price Look-up Code (PLU) Database
- Inventory System

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<sup>8</sup> The California CalFresh program has been formerly known as Food Stamps and federally known as the Supplemental Nutrition Assistance Program (SNAP).

<sup>9</sup> Currently this is conducted by the State Treasurer's Office (STO).

- Geographic Information System (GIS) Interface<sup>10</sup>
- Electronic Benefits Transfer (EBT) System

## *2.6 Primary responsibility for coordination*

The CDPH WIC Program, CDPH ITSD, and the California Technology Agency (CTA) will be responsible for coordinating the project. A full-time project manager will be assigned to oversee the project.

## *2.7 Roles of other offices that will be involved*

CA WIC's business partners, the California Office of Technology Services (OTech), CDPH ITSD, and the STO will be the primary State entities which will be impacted by the selection of a new MIS. OTech provides application hosting and security for the current MIS system at the State Data Center, ITSD provides system modification and enhancements support services; and, the STO provides FI redemption for authorized WIC vendors. Depending on the new MIS selected, the impact on each partner will vary. Any new MIS must architecturally meet the Federal Enterprise Architecture (FEA) guidelines and the California Department of Public Health Enterprise Architecture Guidelines for new systems software development. Consequently, the introduction of new hardware, software, and architectures to support the new MIS will result in a changed environment. ITSD has over two dozen staff and several managers charged with operation support and maintenance of the current system(s).

The STO has been CA WIC's third-party processor for FIs. During implementation of a new MIS, the third-party processor will need to be involved to discuss processes and technological capabilities for data exchange needed to process paper vouchers or EBT.

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<sup>10</sup> As of December 2010, GIS functionality is required to be included or integrated into all California government information systems. Policy can be found in IT Policy Letter 10-15, here: [http://www.cio.ca.gov/Government/IT\\_Policy/pdf/ITPL\\_10-15\\_EA\\_Standards\\_and\\_Procedures\\_Final.pdf](http://www.cio.ca.gov/Government/IT_Policy/pdf/ITPL_10-15_EA_Standards_and_Procedures_Final.pdf)

### 3 Management Summary

#### **Objectives**

- *Compliance with regulations*
- *Increased processing speed*
- *Increased productivity and streamlined business processes*
- *Improved IT services*
- *Improved implementation of program policies and decision making*

#### **Requirements**

- *Increased capacity (e.g., number of users that must be supported, number of office, number of mobile sites)*
- *New technical requirements (e.g., statewide standard)*
- *Improved privacy and security (e.g., must be HIPAA compliant or meet state-specific security standards)*
- *Improvement in management controls*

#### **Assumptions and Constraints**

- *Operational life of the proposed system*
- *Availability of information and resources*
- *Financial constraints (e.g., a specific program function was mandated to be completed within a given time frame)*
- *Legislative and policy constraints*
- *Technical constraints (e.g., changing hardware/software/operating environment, new equipment must be compatible with existing equipment)*
- *Operational constraints (e.g., constraints imposed by an outside agency if the proposed system will be integrated with another public assistance program)*

#### *3.1 Business Program Background*

The WIC program provides health and nutrition benefits to the State's most vulnerable citizens which include infants, children, and expectant/postpartum mothers. Fundamental to the program is providing participants with tailored food benefits that are nutritionally beneficial to the individual participant based on their specific health risks and nutritional needs.

CA WIC provides benefits and services to almost 1.5 million participants each month, 15% of the total national WIC participant population. One Los Angeles-based local WIC agency alone serves more participants than all but three state WIC programs. Of infants born in California in 2010, 63% have received benefits from CA WIC. Under the umbrella of CDPH, WIC participants have access to

services at 650 local WIC agency sites statewide, which are operated by 84 local WIC agencies.

### 3.2 Business Problem or Opportunity

Many changes have occurred in WIC program operations over the past 30 plus years of its existence. As office automation spread with the advent of the personal computer, WIC programs nationwide began to develop information systems to automate the participant certification process and improve efficiency. CA WIC began planning efforts for its first information system in 1991 and now in 2011 is once again revisiting the needs of the program and available technologies. Figure 1 below provides a comparison of the demographics from the last time the State planned for an MIS in 1991 to the current day.

**Figure 1: State Agency Demographics Comparison, 1991 and 2011**

	ISIS Planning, 1991	Today, 2011
Participants	~560,000	~1,450,000
Local Agencies	80	84
Service Sites	530	650
Vendors	~3,500	~5,500
<b>Participants to Local WIC agency Distribution</b>		
<b>Participants Served</b>	<b>Number of Agencies</b>	
Largest	1 (~160,000)	1 (~337,000)
80,001 to 105,000		4
40,001 to 80,000		3
10,001 to 40,000	10	32
5,001 to 10,000	13	13
0 to 5,000	55	30
Smallest	1 (~175)	1 (~80)

ISIS has been operational since 1996 and has performed well over the past 17 years. However, ISIS lacks functionality that would be useful for both service delivery as well as program management. Significant technological advances have occurred in the past decade in telecommunications and internet web-based reliability which justify consideration of a web-based system. California is aware of the Federal mandate to implement and change to EBT by October 1, 2020. At this time, CA WIC is not sure how the projects will proceed in relation to each other. CA WIC will manage both projects knowing that the project timelines may need to be revised or integrated based on future decisions. CA WIC will be closely working with the USDA seeking advice and project approvals. And most

importantly, the program will ensure that CA WIC will choose a new MIS which is EBT-ready.

The food delivery component of ISIS is critical to program operations. On average, CA WIC issues approximately 5.4 million FIs each month<sup>11</sup> at local WIC agency sites. Participants take the FIs to one of approximately 5,000 authorized vendors who then submit the serial numbers, online or on the phone, prior to depositing the FI for processing via their bank. The FIs are then routed through the banking system to the STO for processing, payment, and reconciliation. The STO processes and redeems an average of 90% of the FIs issued each month, or approximately 4.8 million FIs per month.

*For more information on the Business Capacity of the current system(s), see Appendix A: Business Capacity Study.*

Extensive supplementary systems have been created and State WIC program staff rely heavily on paper files and single-use Microsoft Excel worksheets. To carry out business processes, store, and report on data, CA WIC staff have created many supplemental and non-integrated data repositories. Examples of these include:

- Agency Contact Sheets
- Local WIC agency and Inventory System (LAIS)
- Commodity Supplemental Food Program List
- Daily Logs
- Local WIC agency Files
- Vendor Contracts

*To see a larger list, see Appendix M: Supplemental and Non-Integrated Data Repositories.*

Overall, CA WIC seeks to replace its existing information system(s) with a more efficient, modern, and cost-effective system that satisfies all of the program's business process needs. It will be a challenge to integrate business functions into one efficient system, which have previously been completely autonomous and highly reliant on manual labor into one efficient system. California is faced with an additional challenge in the transition from mainframe technology to a modern web based system which addresses future needs while ensuring that the future

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<sup>11</sup> Less FIs are redeemed than issued each day because not all benefits issued are redeemed.

system can continue to meet capacity and transactional requirements. California is the largest WIC program nationwide and the WIC systems that have been implemented recently in other states have not been required to meet the capacity requirements that California will impose. By implementing a solution with modern technology architecture, CA WIC has the opportunity to improve data integrity, reduce information technology (IT) costs, and ensure that the system is built on an architecture that can be supported in the future.

According to the 2010 STAR report, the State agency has requested automation enhancement funding for potential statewide applications acknowledging the need for ISIS modifications which include automated graphic caseload statistic and analysis, a participant calling system and data mining expansion. It has been recommended by the USDA that CA WIC discontinue planning to conduct these ISIS-related enhancements at this time and instead integrate these functionalities into a new MIS platform. “In the context of the planned WIC system replacement, all of the applications propose to utilize current ISIS data which will be converted to a new, unknown platform at that time.”<sup>12</sup> This direction in the STAR report highlights the USDA’s acknowledgement that a replacement MIS for California will present an opportunity to mitigate many of the problems identified with the current system(s).

### *3.3 Business Objectives*

In evaluating, planning, and implementing a replacement system in the State of California, it is important to be directed by the strategy of California and CDPH<sup>13</sup>. Furthermore, it is important to be cognizant of the “cultural” preferences of USDA’s FNS and the National WIC Association (NWA):

- Preference towards a web-based centralized solution built on standard architecture.
- Preference towards flexibility in implementing customizations so that the new MIS can grow with changing business needs.
- Open to many replacement options including transferring an existing solution from another state, if the system meets the State defined functional requirements.

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<sup>12</sup> USDA FNS response in California 2010 STAR report.

<sup>13</sup> Applicable strategic plans are: the California Information Technology Strategic Plan 2011, CDPH Strategic Plan Extension Report (2008-2011), and the Agency Information Management Strategy (AIMS) updated October 2010.

### 3.3.1 Problems to be Solved / Opportunities to be Gained

CA WIC has identified the following as problems that may be mitigated by the replacement of the MIS:

- **Increase Support for Business Processes:** It is estimated that between 36.7% and 59.7% of processes are supported by the current system(s) while the replacement of the system (based on identified functional requirements) is anticipated to support up to 90.5% of processes. *See Appendix B: Business Process Calculation*
- **Support a Participant-Driven Service Model:** The new system should support efficient processing and facilitate better communication between staff and the participant.
- **Harness Value of Data Collected:** Some reports to management and the USDA are labor intensive, requiring collecting information from and into excel spreadsheets and paper files.
- **Ensure Data Restoration Capability:** All Vendor and local WIC agency records containing the sole copy of the legal contracts are located in paper files stored in several file rooms onsite. If a disaster occurs, a loss of all historical and current contract information is likely to occur.
- **Compliance with USDA Mandates:** The USDA has allowed CA WIC to be non-compliant with several mandates allowing time to complete the MIS planning process with the understanding that specific functionalities would be available at the conclusion of the MIS planning project and upon implementation of a replacement system.

CA WIC will benefit from the following opportunities associated with the replacement of the information system(s):

- **Capitalize on Federal Funding:** CA WIC seeks to take advantage of any available funding to mitigate issues and make changes necessary to be able to fully comply with the mandate to transition to EBT benefit issuance by 2020.

### 3.3.2 Alignment with California and CDPH Strategic Objectives

The project objectives align with California and CDPH Strategic Objectives as summarized in Figure 2 through Figure 4 below.

**Figure 2: Alignment with Statewide Strategic Plan**

Project Objective	California IT Strategies
Increase support of WIC Business Processes	<p>Goal 1: Make Government transparent, accessible and secure</p> <ul style="list-style-type: none"> <li>• Strategy 1: Make government services, data, and information more accessible, available, and usable any time.</li> </ul>
Support Participant Driven Service Model	<p>Goal 1: Make Government transparent, accessible and secure</p> <ul style="list-style-type: none"> <li>• Strategy 1: Make government services, data, &amp; information more accessible, available, &amp; usable any time.                             <ul style="list-style-type: none"> <li>○ Tactic: Create integrated web sites that provide “one-stop” access to information and services.</li> </ul> </li> <li>• Strategy 2: Open new channels to provide services to Californians.                             <ul style="list-style-type: none"> <li>○ Tactic: Move government transactions that are currently paper-based to the web.</li> <li>○ Tactic: Use social media and collaboration tools to connect to and engage Californians.</li> <li>○ Tactic: Expand access to non-confidential State-owned data sets and databases.</li> <li>○ Tactic: Integrate geocoding capabilities into new applications and retrofit existing applications with this capability so Californians can find State resources they need.</li> </ul> </li> </ul>
Harness Value of Data Collected	<p>Goal 1: Make Government transparent, accessible and secure</p> <ul style="list-style-type: none"> <li>• Strategy 4: Make government more transparent                             <ul style="list-style-type: none"> <li>○ Tactic: Enhance the value of State data sets through data visualization tools.</li> </ul> </li> </ul>
Ensure Data Restoration Capability	<p>Goal 3: Make information technology reliable and sustainable through consolidated platforms and shared services</p> <ul style="list-style-type: none"> <li>• Strategy 6: Ensure the disaster resiliency of the State’s IT infrastructure                             <ul style="list-style-type: none"> <li>○ Tactic: Ensure that departments have a workable disaster recovery plan</li> </ul> </li> </ul>

**Figure 3: Alignment with CDPH Strategic Goals**

Project Objective	CDPH Strategic Goals
Increase support of WIC	Goal 5: Improve effectiveness of business functions

Business Processes	
Harness Value of Data Collected	<p>Goal 3: Improve quality and availability of data to inform public health decision-making</p> <ul style="list-style-type: none"> <li>Objective 5-6: Increase the percentage of datasets in the CDPH Data Resource Inventory that have geocoded data to 20 percent</li> <li>Objective 7-8: Increase to 50 percent the percentage of datasets in the CDPH Data Resource Inventory from which de-identified and/or non-confidential data are publicly available via the internet</li> </ul>

**Figure 4: Strategic Alignment with AIMS**

Project Objective	AIMS Strategic Objectives
Increase support of WIC Business Processes	<p>Goal 2: Seek Business Driven Technology Solutions</p> <ul style="list-style-type: none"> <li>Objective 2.1: Standardize Business Processes and Technology Solutions</li> <li>Objective 2.2: Consolidate and Integrate Business Applications</li> </ul>
Harness Value of Data Collected	<p>Goal 1: Treat Information as an asset and create an environment to maximize its value to the Department and its partners and customers.</p> <ul style="list-style-type: none"> <li>Objective 1.2: Consolidate and Integrate Data</li> <li>Objective 1.3: Enable Health Information Exchange, Search, and Discovery</li> </ul>
Ensure Data Restoration Capability	<p>Goal 1: Treat Information as an asset and create an environment to maximize its value to the Department and its partners and customers.</p> <ul style="list-style-type: none"> <li>Objective 1.5: Manage and Maintain the Information</li> </ul>
Compliance with USDA and State Mandates	<p>Goal 3: Provide a Secure and Trusted IT Environment</p> <ul style="list-style-type: none"> <li>Objective 3.1: Utilize Information Security Policies and Procedures</li> </ul>

**3.3.3 Functional Limitations**

The current information system(s) lack the integration of the following required model functional requirements (based on the USDA FReD):

- Set up and maintenance of food package data<sup>14</sup> as the vendor authorization process is not automated
- Maintain routine vendor monitoring data
- 100% EBT-readiness
- Breastfeeding peer counseling database
- Measure vendor cost competitiveness

### **3.3.4 Service Delivery Enhancements**

By implementing a replacement system where all functions are integrated into one web-enabled system, service delivery will be enhanced by these following improvements:

- Data management and reporting will include all current and historical data in one place for all users.
- Participant guidance will be real time and allow access to archived participant information.
- Participant integrity verification will utilize single screen data entry for changes to participant enrollment demographics.
- Streamlined business processes through user interface reengineering and improved application deployment for improved ability and process for system modifications.
- Ability to support modern technologies, such as EBT, scanned documents and electronic signatures.
- Leveraging modern technologies, such as interfaces to other systems and web-based data collection (i.e. web-based retailer applications, immunizations, or participant nutrition education).
- Providing self-service capabilities and electronic communications channels to participants and vendors.

### **3.3.5 Statutory Requirements**

In addition to the functional needs addressed by a replacement WIC MIS, the new system will allow the State of California to meet the needs related to the

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<sup>14</sup> Food packages, food items included in food packages, and substitutions to the defaults must be updated in the tables directly via QMF table editor and then moved through the other environments (production, test, development). The process is time-consuming for numerous staff including high cost IT developers.

WIC program regulations as defined in the Code of Federal Regulations (7 C.F.R. Part 246) and provide improved reliability of Federally required reporting.

There are several statutory requirements driving the replacement system process as well. These include the Healthy Hunger-Free Kids Act of 2010. Specifically, this law mandates several requirements that a new MIS will be required to fulfill, including:

- Require rebate reporting in the month received, not earned
- Electronic Benefit Issuance by 2020
- Establishment of a UPC/PLU database
- New reporting requirements (minimum data)
- Adherence to technical standards and operating rules in relation to WIC EBT

### **3.3.6 Other**

There are no other objectives to report.

### **3.3.7 Compliance**

The replacement system will be required to support all Federal regulations and support State of California standards and policies. The new system will also be required to conform to the USDA FReD and the WIC Universal EBT-MIS Interface Document (WUMEI).

### **3.3.8 Processing Speed**

It is anticipated that the use of a centralized, web-based solution will improve processing of data at the State Agency and participants at the local WIC agencies, but the degree to which processing speeds are increased or decreased is unknown. Processing speeds will be dependent on factors such as telecommunications bandwidth capacity and the architecture of the transfer system chosen. An additional factor which will affect processing speeds will be the impact of a Graphical User Interface (GUI) system over a character-based system.

### **3.3.9 Productivity and streamlined business processes**

The new system is expected to significantly increase productivity and streamline business processes at the State Agency and Local Agencies through automated functions and centralized access to data. Specific benefits to increased productivity and streamlined business processes include:

- Staff will become more efficient as several functions will be automated.
- Numerous paper files on one agency/vendor will be converted to a consolidated electronic file.
- Reduction in duplication of efforts eliminating the need to complete paper forms, mail/fax in documents, make phone calls to acquire missing data and then entering data into a computer program.
- Reduction in invalid or incomplete documentation through data validation.
- Reduction in cost and inefficiencies of paper, files and postal correspondence with local agencies and vendors.
- Consistent electronically assigned nutritional risk and priority status.
- Automatic and versatile household calculation to determine income eligibility.
- Functionality for automated growth charts.
- Ability to track nutrition education contacts and topics.
- Ability to track referrals to other programs.
- Availability of improved standard and ad hoc reporting.
- Reduced implementation time and improved accessibility to policies.
- An included online vendor application and price survey submission component.

### **3.3.10 IT Services**

One of the primary objectives of the replacement system is to ensure improved IT services by implementing a system solution using an industry standard technical architecture that can be easily supported by the current and future information technology workforce. In the past, WIC and ITSD have relied on external support staff, under contract, to supplement State staff skills to provide development as well as ongoing maintenance and operations services. Reduction of contracted support staff will streamline IT services by eliminating the need to maintain service contracts and use of resources that do not fall within the State organization structure.

### **3.3.11 Program policies and decision making**

The replacement system is anticipated to provide improved access to data, which will assist both the State WIC agency and local agencies in decision making. By requiring a centralized solution, CA WIC will have immediate access to

comprehensive data and will be able to ensure that all users are accessing the system in a manner that supports current policies. Version control will be achieved through the system update approach that is present in the viable transfer candidate systems.

The system will have the ability to capture and report on current and historical data that is not readily available for reporting today. The transfer options include a significant number of standard reports that are available with the initial transfer, as well as robust ad hoc reporting capabilities.

### 3.4 Business Requirements

#### 3.4.1 Capacity

Although the CA WIC Program may experience some nominal growth, the replacement system will not be required to accommodate an increase in capacity from the current system environment. Rather, the system must prove to be scalable, allowing capacity to increase at a nominal rate in the future. *Refer to Appendix A: Business Capacity Study for more detail.*

#### 3.4.2 Technical Requirements

It is required that the replacement system meet California Department of Public Health Enterprise Architecture Guidelines. *See Appendix C: Functional Requirements Summary, which outlines the State's stated requirements.* It is also highly recommended that the system's design allows for interoperability should interfaces with other programs be desired at a later date, as well as be "EBT-ready" to support the State's desire, as well as the Federal mandate, to transition to an EBT platform.<sup>15</sup>

#### 3.4.3 Privacy and Security

The replacement system is required to meet the State of California security standards as defined in CDPH Information Systems Security Requirements for Projects.

#### 3.4.4 Management Controls

The system requires improved user access controls to better enforce user roles and permissions. For instance, user view/update access should be available at

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<sup>15</sup> A detailed list of California's functional requirements will be included in the IAPD to be submitted to the USDA after the acceptance of this document.

the screen, function, and data element level. The system alternatives available for transfer have robust user access controls managed by roles.

### 3.5 Assumptions and Constraints

#### 3.5.1 Operational life

It is expected that the replacement system will have a ten-year operational life.

#### 3.5.2 Information and resources

CA WIC has relied on information gathered from other states with modern operational WIC information systems as well as vendors with existing systems or those in development. Most system environments are in the midst of implementation and enhancement; therefore, this analysis focused on the systems as built or designed at the time of this study. Communication with WIC system vendors who might bid their system as a potential replacement was limited during the preparation of this document so as to not interfere with State procurement rules. CA WIC conducted a *WIC MIS System Comparison (see Appendix D)* to assist in expanding staff understanding and knowledge of the spectrum of WIC systems available. Separate surveys were designed for both selected states as well as WIC MIS vendors. Survey questions were developed using the requirements contained in the California Functional Requirements Document and the results will be used to compare and contrast potential systems and their functionalities as staff continues the planning process. *For more information, see 4.4.3.2 Comparison of known modern WIC Systems.*

#### 3.5.3 Financial constraints

The availability of Federal funding could affect the acquisition and implementation of the new WIC MIS. The outlook for Federal funding in 2012 and beyond is uncertain. If Federal monies become limited and cannot be appropriated to fulfill all requested technology updates for State Agencies, FNS has indicated that a priority system will be used to disburse funds. Federal policy gives funding priority to states who transfer SAM systems and participate in a consortium. In addition, the order in which the USDA receives and approves the IAPD documentation will also weigh in on whether a state receives funding and when the funding may be available. There are currently no known financial constraints for California to maintain a new MIS within their current Nutrition Services and Administration (NSA) grant funding, as demonstrated later in this document.

### **3.5.4 Technical constraints**

The State would like to leverage existing technical resources at the local WIC agencies, including existing Windows based workstations. As the architecture of the replacement system will differ from the existing architecture, equipment replacement may be required; nonetheless, one of the benefits of a web-based replacement system is that it can be typically supported through a variety of operating systems. The State will continue to upgrade equipment based on the WIC life cycle replacement policy.

To support paperless service sites, CA WIC will need to acquire additional equipment not currently in use at the State WIC agency or local WIC agencies, such as electronic signature pads and document scanners.

Depending on the specific transfer system selected, additional software might be needed. This will be identified in detail once a replacement system is identified.

### **3.5.5 Operational constraints**

Operational constraints are those imposed by an outside agency if the proposed system will interface with other public assistance programs. CA WIC desires that the replacement system have the ability to interface with other modern systems. Today, the specific constraints are not known and may be imposed by outside agencies as a condition of interfacing with WIC.

## 4 Alternatives Analysis

### **Methodology**

- *Identify how the analysis was accomplished and how the alternative system(s) were evaluated*
- *Summarize the general method or strategy employed, such as surveying, weighing, modeling, benchmarking, or simulating*

### **Evaluation Criteria**

- *Identify the criteria to be used to determine the viable system(s), including the relative technical, fiscal, and operational advantages and the ability to meet the system requirements specified in the functional requirements document*

### **Alternatives**

- *Describe each alternative system in terms of methodology and the degree to which it meets the established objective and evaluation criteria within the framework of the aforementioned constraints*
- *Include alternative systems deemed to be infeasible and specify the reasons for this conclusion*

This section presents the major alternatives considered.

### 4.1 Methodology

This section describes the methods used to analyze and select the most viable alternative for CA WIC.

#### 4.1.1 Analysis and Evaluation

Based on an assessment of CA WIC needs, the State of California's information system requirements, and the availability of comparable systems in the current market, the feasibility study explored four alternatives for procurement of a new WIC system:

- **Maintain the Status Quo:** keep the current system and perform only USDA mandated modifications.
- **Modify the Current System:** upgrade the current system to meet FReD core program and technical requirements in addition to the modifications identified in the status quo alternative.
- **Custom Development:** develop a comprehensive new system from the ground up.

- **Transfer/Modify a System:** transferring a WIC data system currently supporting another state's WIC program and modifying it to meet CA WIC requirements.

#### 4.1.2 General Method

The following activities were conducted to perform the alternatives analysis:

- Document current environment: Discussion of the existing WIC system(s), the architecture, functionality, and operation. *OUTPUT: CA WIC Business Capacity Study, see Appendix A.*
- Document future environment requirements: Determination of technical environment the State wishes to achieve, the functionalities and technical architecture. *OUTPUT: Functional Requirements Summary, see Appendix C.*
- Assess potential development options: Investigation of custom development of a new system or modifying the current system to meet the stated California requirements.
- Gather information on potential transfer systems: Investigation of information system alternatives that are available for consideration. *OUTPUT: CA WIC MIS System Comparison, see Appendix D.* As a system could not yet be identified for transfer, the alternatives were reviewed only at a high level.
- Review findings and provide recommendations: Review of the costs, benefits, requirements match, and any other factors that affect each alternative and its fit with CA WIC. Recommendations are provided throughout this document.

This alternatives analysis included information gained from the following resources:

- Interviews with State of California technical and program staff.
- Review of, and consultation with, technical experts, regarding software and systems technology in the client/server and web-based systems environments.
- Information and documentation on transfer systems' design and functionality provided by system development contractors.
- Industry knowledge of procurement and implementation trends and the WIC MIS landscape.

## 4.2 Evaluation Criteria

### 4.2.1 Considerations

The following criteria were included in the consideration of each alternative:

- A selected alternative must include the capability of operation in all local WIC agency site environments in California.
- A selected alternative must provide, at a minimum, the required functions identified by the State WIC agency during the requirements analysis stage of the project or must be suitable for modification before implementation.
- A selected alternative must provide fully integrated and user-friendly local WIC agency and State agency operations and management support functionalities.
- A selected alternative must support IT industry development, implementation, and operations principles and standards.
- A selected alternative must maintain the efficiency and capacity of the existing California ISIS system.
- A selected alternative's development and operational cost must be in alignment with the money expected to be available to the program and must be supportable through existing funding streams.
- A selected alternative should allow relative ease of system maintenance and enhancement.

### 4.2.2 Requirements

CA WIC performed a requirement analysis to determine essential system functionality. Using the USDA FReD, as well as defining technical (architecture, telecommunications access), operational (workflow and Americans with Disabilities Act compliance), and fiscal (funding sources, SAM opportunities) requirements, the State evaluated how well each alternative system met the requirements.

*Appendix C contains the Functional Requirements Summary. Unless otherwise noted, the requirements match the USDA FReD description of requirements. Appendix N: State Summary Requirements Matrix contains the comparison of the State's functional requirements to the FReD.*

## 4.3 Baseline Analysis

### 4.3.1 Current Method and Technical Environment

*See Appendix A: Business Capacity Study, Section 2.*

#### 4.3.1.1 Objectives of the Current System(s)

The USDA provides annual grants to State WIC Programs to administer the nationwide WIC program. ISIS is used by California State WIC agency and local WIC agency staff to administer the WIC program by supporting certification, nutrition education, health surveillance, referrals, food benefits issuance and redemption, scheduling, and system administration. The WIC Extranet provides reporting capabilities, and VWIX provides support for vendor payment processing.

#### 4.3.1.2 Ability of System(s) to Meet Workload

WIC has nine high-level functional areas providing business processes that are crucial to the administration of the CA WIC Program and each would greatly benefit from a new MIS. For a discussion on how each functional area utilizes the current system(s), *see Appendix E: Current System(s) Support of Business Processes.*

#### 4.3.1.3 Data Characteristics

The reporting database is an IBM DB2 Universal Database (UDB) located on servers using IBM's UNIX operating system, AIX. Data are extracted from the ISIS transactional DB2 database and transferred to the reporting DB2 subsystem. The reporting environment, called the WIX, provides reporting capability to staff at the State WIC Program and local WIC agencies. The staff accesses the WIX through a web browser and uses BO to run canned reports, as well as create custom reports. The data available for reporting are provided in seven (7) BO Universes. BO Universes provides user-friendly names for database columns and control access to the data tables. The BO Universes also enable the end-users to create reports without significant Structured Query Language (SQL) knowledge by automatically performing table joins and handling other backgrounds tasks. The data available for reporting is only a subset of the full data in ISIS, and many tables available are WIX are summary tables.

The system is able to continue with current operations and performance levels even with a significant increase in participants and users through aggressive archiving of data. ISIS system capacity is significant.

The ISIS production transactional mainframe DB2 database consists of:

- 195 tables
- 1.36 billion records
- 368 gigabytes of storage space
- Averages more than 78 million DB2 database calls per day

The ISIS production reporting mainframe DB2 and AIX UDB databases consists of:

- 500 tables
- 1.44 billion records
- 385 gigabytes of storage space in DB2 and 6 GB in AIX
- 13 months of data refreshed at the end of each month

#### ***4.3.1.4 System Provisions for Security, Privacy, and Confidentiality***

ISIS follows the CDPH policy and procedures detailed in the Information Systems Security Requirements for Projects<sup>16</sup>.

#### ***4.3.1.5 Equipment Requirements***

The data center hub provides T1 and T3 connections to the ISIS application, while remote Local WIC agency sites may connect to the hub through a VPN. Cable modem or DSL provides VPN access; however, as a backup, ISIS can be accessed through a dial-up connection.

#### ***4.3.1.6 Software Characteristics***

ISIS on-line processing is a mainframe-based transactional “green screen” application developed and maintained using IBM’s 4<sup>th</sup> Generation Language (4GL) development tool, Visual Age, that generates CICS COBOL. ISIS batch processing is written in COBOL and performed nightly, on weekends, and during end of month processing. Both on-line and batch process access the ISIS transactional DB2 Relational Data Base Management System (RDBMS) on the IBM mainframe.

#### ***4.3.1.7 Personnel Requirements***

ISIS relies on a large and wide variety of tool sets, some of which are considered legacy. ISIS maintenance requires technicians skilled in Mainframe z/OS, IBM AIX (UNIX), and Microsoft Windows operating systems. Additionally, skills in

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<sup>16</sup> Document available at: <http://www.cdph.ca.gov/programs/cpns/Documents/Network-PL-08-02-DPH-ISO-Project-Requirements.pdf>

Citrix, RACF, and Active Directory are needed. ISIS modifications require developers skilled in IBM Visual Age, COBOL CICS, COBOL Batch, JCL, Business Objects, VB.Net, ASP.NET, IIS, DB2, AIX UDB, and Microsoft SQL. ECORA, a configuration and patch management tool, is used to manage patching. Enhancements require programmers skilled in IBM Visual Age, COBOL, JCL, and similar mainframe technologies as well as Database Administrators (DBAs) familiar with both mainframe and UNIX database hosting environments.

CA WIC is dependent upon highly qualified technical staff being hired under contract to assist the State IT personnel who support the WIC systems. Personnel with the required skill set and accreditations needed to maintain the mixture of 4GL, JCL, and DB2 on the z/OS and AIX platforms are not easily located.

#### ***4.3.1.8 System Documentation***

***ISIS was a transfer system that provided the minimum foundation and the bulk of the system was developed in-house. California has limited documentation on the design of the original Florida system. As the system has been enhanced and new systems added such as VWIX and WIX, there has been a lack of consistency in how system changes are documented and stored.***

Below is a listing of limitations to the current system(s).

- May not be feasible to integrate features of current generation systems that improve efficiency and enhance program integrity.
- Having limited capability for real time reporting to historical data for local agencies.
- The system will require resource dedication to make modifications to become EBT-ready.
- Recruiting and retaining accredited staff that possess the skills currently needed to maintain ISIS is time consuming and costly.

#### 4.4 Alternatives

Figure 5 below summarizes the Alternatives Analysis that is described in the following pages.

**Figure 5: Alternatives Analysis Summarized**

Business Need	Status Quo	Modification	Custom	Transfer
<b>Business Process Changes</b>	Minimal	Moderate	High	High
<b>Meet Business Needs / Functional Requirements</b>	Minimal	Moderate	High	High
<b>Infrastructure Used</b>	Current	Current	New	New
<b>Alternative Solution Viability</b>	Short Term	Short Term	Long Term	Long Term
<b>Provide Current Technology / Functionality</b>	No	No	Yes	Yes
<b>Level of Development effort</b>	Minimal	High	High	Moderate
<b>Reverse Engineering Needed</b>	Minimal	High	None	None
<b>Support EBT</b>	Yes	Yes	Yes	Yes
<b>Level of Development Risk</b>	Low	High	High	Moderate
<b>Level of Long Term Program Risk</b>	High	High	Minimal	Minimal
<b>Disruption of Services</b>	None	Moderate	Moderate	Moderate
<b>Magnitude of Training Needed</b>	Minimal	Moderate	High	High
<b>Ongoing Maintenance Expenses</b>	Will Increase	Will Increase	Will Decrease	Will Decrease
<b>Redirect most IT Staff</b>	Moderate	High	Minimal	Minimal
<b>Likelihood of receiving USDA financial support</b>	Unlikely	Unlikely	Unlikely	Likely
<b>Harness Value of Data Collected</b>	Minimal	Moderate	High	High
<b>Financial Cost</b>	Minimal	High	High	Moderate
<b>Development/Implementation Time Cost</b>	Minimal	High	Moderate	Moderate

#### 4.4.1 Maintain the Status Quo

One of the alternatives is to **Maintain the Status Quo**, meaning that no changes are made and business proceeds as usual. While this alternative would involve maintaining the current mainframe system, CA WIC cannot avoid the need to develop and implement the USDA mandated enhancements.

Maintaining the current WIC system(s) has one primary advantage in that it is a short-term, least-risk scenario. The current system has been stable and operating for over 17 years. Maintaining the current system avoids the disruption in operations that accompanies converting to a comprehensive new system:

- Reduced access to site services during a “down” time before rollout or “light” scheduling immediately after a rollout.
- Installation, training, and new policies and procedures that must be implemented once the new system is operational.

Additional advantages would include:

- No development and project management expenses as associated with the **Transfer/Modify** alternative.
- Would not require the State and local WIC agency staff to learn to use a new system, participate in the implementation project, or incorporate business process changes.

The disadvantages in maintaining the current system(s) include:

- ISIS may be missing key functionality of modern WIC systems. This implies the potential for additional labor costs may need to be incurred to mitigate the system’s limits. Retaining the current system would not achieve CA WIC business goals and objectives. It would also not produce the expected result from a system transfer or modify project such as improved business processes, additional data interfaces with related systems, full compliance with Federal system requirements, and enhanced staff productivity.

Mainframe processing and support costs may increase as more clients are served, more transactions processed and more users added to the mainframe system. The USDA has allowed CA WIC to complete the MIS planning process with the understanding that specific functionalities would be implemented once a new MIS system was rolled out. Many of the findings have been addressed by CA WIC and ITSD. The mandates are documented throughout the annual STAR

reports conducted by the USDA. As staff are using added functionalities, and intermediary and manual efforts to facilitate non-compliant business processes, these functionalities must be addressed even if the alternative to **Maintain the Status Quo** is chosen.

#### 4.4.1.1 *Mandated Modifications*

- **Minimum Data:** For several years, the USDA has noted that WIC does not collect all mandatory data. CA WIC has been unable to provide data elements requested by the USDA. Specifically noted is the incomplete breastfeeding statistics in the Participants Characteristics Minimum Datasets required every two years, *(2009 STAR)*
- **EBT-Ready:** CA WIC must have a system that will allow for proration of benefits, aggregation of benefits, and fixed month issuance to be able to implement EBT by 2020. *(2011 STAR)*

#### 4.4.1.2 *Suggested Modifications*

- **Record Retrieval:** The USDA noted the inability to access participant records 90 days after the certification end date via online ISIS. Access to these records requires an ad hoc report query in order to retrieve specific participant data. There is no functionality to select records that have been batched out for recertification. *(2009 STAR)*
- **Paperless Processing:** ISIS has the functional capability to be virtually paperless; however, WIC staff are consistently using paper forms and tracking tools due to ISIS's inability to currently support document attachments, electronic signatures, nor (as mentioned above) the ability to update questions asked and data requested. This has created costs through the inefficient use of staff on many manual processes and for local agencies as well as the use of paper and storage both on and offsite for several years as per State WIC policy. *(2011 STAR)*
- **Participant Access Determination:** ISIS does not support a systematic statewide process for establishing an appropriate number and distribution of vendors for each geographic area. With thousands of vendors, this labor-intensive manual calculation is done only as vendors are de-authorized to ensure that an area is not underserved when rather this action should be periodic and proactive. *(2011 STAR)*

#### 4.4.2 **Upgrade/Modify Current System**

Some states, such as Indiana, have successfully modified an existing system to meet modern technology requirements. This alternative differs from **Maintain the**

**Status Quo** in that the modifications would be made beyond those that are mandated by the USDA and include all functionalities cited by the USDA as components of a model system (per USDA FReD). Advantages of this alternative include:

- These modifications would achieve some of the CA WIC business goals and objectives; specifically, provide some improvement to the operational efficiency.
- Builds on the current system and mainframe platform.
- Allows for the modifications required by Federal regulations and defined by the functional requirements.
- No new hardware or software would need to be purchased such as scanners, signature pads, laptops, servers, and server software licenses.
- Exposes the local WIC agency and State WIC Program staff to limited system, project and business process changes reducing the need for additional training.

This alternative would involve adding needed functionality to the current mainframe system, or create additional auxiliary applications, to follow Federal system requirements and developing ongoing maintenance releases. All business process areas, especially Vendor and Fiscal Management, would need to be engaged in creating new functionality, as modules containing the functionality for their business processes are currently non-existent.

Implementing EBT will require changes to the current processing model, which is built on the individual participant and rolling month benefits issuance. Modifications that are proposed in this alternative would bring the system(s) to a level which could meet current business needs, as well as USDA mandates. The system would require significant resource dedication to implement these necessary, major system(s) enhancements and modifications.

The WIC system(s) are distributed across numerous hardware components, operating systems, and programming languages. Personnel with the minimum skill sets needed to enhance and maintain the mixture of 4GL, JCL, and DB2 on the z/OS and AIX platforms are not easily located. These described adaptation challenges translate into possible dependence on vendor staff for certain maintenance and operation needs.

Disadvantages to this alternative include:

- The estimated 149 month timeframe for modifying the current system is longer than the Transfer and Modify timeframe of 114 months. *See Figure 10: Summarized Cost Benefit Analysis of Alternatives*
- Does not provide current technology.
- Lack of functionality would require a significant development to meet the State's requirements in several areas which include missing modules for financial management, vendor management, and breastfeeding/ peer counseling case management.
- The conversion effort to update this system to meet the functional requirement standards would require reassigning support staff to development, contracting with additional IT staff, (requiring justification due to State personnel requirements) and redirecting WIC staff from current tasks to complete the project in a reasonable timeframe. ISIS was developed using Cross Systems Product (CSP), Visual Age Generator, JCL, and mainframe based technologies. CSP and Visual Age Generator generate COBOL code for the mainframe and all source code is in Visual Age format.
- Does not meet, without significant expense, the CA WIC business goal of providing a foundation of the future development of WIC EBT.

Disadvantages that were mentioned in the **Maintain the Status Quo** alternative are also relevant to a modification of the system are:

- ISIS is missing key functionality of modern WIC systems. The lack of functionality results in many required tasks either being performed manually or not at all. This implies extensive labor costs are incurred to mitigate the system's limitations.
- Does not reduce ongoing technology expense as mainframe processing and support costs may increase as more clients are served, more transactions processed, and more users added to the mainframe system.

#### 4.4.3 Custom Development

This alternative would involve development of a new system to meet all the Federal system requirements and requirements unique to CA WIC. The challenge would be to build from the ground up (duplicate) all the functionality in a WIC transfer system at a lower cost than transferring and modifying such a system.

The advantages of the **Custom Development** alternative include:

- Achieves all the CA WIC business goals and objectives.
- Provides current technology.
- Delivers the needed functionality, including scalability based on expected participation growth.
- Overall cost savings in other states that might choose to transfer the system and could provide a viable platform for a consortium of Western States to share resources.

Development efforts carry significant cost and risk. New development requires an extensive amount of State WIC Agency and local WIC agency staff time to be devoted to design sessions. There is a significant effort required of in-house IT staff and development contractors to develop a sound data model and translate the requirements into an acceptable design. Since the system will be brand-new, additional time (when compared to a transfer) will be required for both system testing and the development of training tools. In addition, a larger portion of State staff project management will be needed as well as greater in system design decisions, as opposed to just design validation. This anticipated need for additional/increased staff time and significant contractor efforts is currently unattainable because of a State of California has been in and out of hiring freezes, not to mention restrictions on outside contractors. If CA WIC were to choose this alternative, it must address the increase in CDPH IT staff workload given their current job duties devoted to system maintenance and operations. Additionally, CA WIC would need to be able to retain contractor staff with specialized skills. Alternatively, CA WIC could retain an outside contractor to perform all development. However, the significant commitment from State staff would still remain.

Therefore, **Custom Development** of a system is not feasible because the cost, staff time, development time, and project risks are much higher than other alternatives. Furthermore, the USDA has spearheaded the SAM initiative to avoid the need for custom development to save both time and Federal investment cost. The necessity for custom development is also mitigated by a range of current WIC systems expected to be available that will meet almost all of CA WIC requirements. The disadvantages of the **Custom Development** alternative include:

- The estimated 108-month timeframe for building a new system is slightly longer than the **Transfer/Modify a System** timeframe of 114 months. See

*Figure 10: Summarized Cost Benefit Analysis of Alternatives*

- The longer timeframe required for this alternative would be a greater fiscal burden to CA WIC as mainframe-processing costs would continue to increase while simultaneously paying for an extended development project.
- Even if fully staffed, the additional staff time required for development and testing would put a greater burden on WIC staff being able to balance current job activities with project needs. Select and Transfer/Modify Existing System.

When California began its planning process, the USDA recommended two tracks: select a SAM system or select a non-SAM system. The purpose of the SAM initiative is to make available three model systems with sufficient flexibility that can, with minimal enhancements and modifications, be transferred to other states.

The assumption was that through the Systems Alternatives Analysis component of the Feasibility Study, the State would have analyzed sufficient information and be presented with adequate options in order to select the specific system that would be the best fit.

#### **4.4.3.1 Status of SAM Systems<sup>17</sup>**

In the summer of 2010, it was determined that the **SPIRIT system** would not be approved for additional transfer. It is unclear when SPIRIT transfers will be approved. SPIRIT, therefore, is not an available option for California to consider in the planning process at this time.

In August 2010, a memo was released from the USDA stating that the **MPSC system** could not be considered until Colorado completes their pilot, which was anticipated to occur in fall 2011. A more current memo has been released in September 2011 from USDA stated the **MPSC** system is available for consideration, but cannot be implemented until all three **MPSC** State agencies successfully implement the system statewide. Since the California planning process had already begun and the Implementation Advance Planning Document (IAPD) is expected to be completed by the close of 2011, **MPSC** was not an available option to consider during the development of this planning document.

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<sup>17</sup> CA WIC participated in planning and the creations of this document between June 2010 and October 2011.

The **Crossroads system** is currently in the design and development stage will not be piloted until August 2012. Therefore, Crossroads is not an available option to consider during the development of this planning document.

At the time this analysis was performed, no SAM systems were available to California for consideration. For purposes of this document and the companion, IAPD a specific system will not be named. The foreseen approach for California is to release a competitive procurement proposal to design, development and implementation contractors for a system. The responding bidders will be expected to identify the modifications required and the implementation process for a suitable transfer system, one from either another state or SAM.

Several systems, including the SAM systems, were used in the analysis of the select and **Transfer/Modify Existing System** option. This alternative will allow California to acquire a system based on the requirements defined by the State even though a specific system is not selected beforehand. This analysis will allow California to establish the feasibility of systems currently in use or development and, to begin to assemble the detailed information needed to complete Federal and State required planning documents. Once planning documents are accepted by the USDA and the State, it is expected that several SAM systems will be approved for transfer and California will be able to consider multiple options during their procurement process.

#### **4.4.3.2 Comparison of known modern WIC Systems**

Without SAM systems available for comparison, CA WIC will need to procure a system based on the State's specific requirements in accordance with the SAM initiative. In preparation for such an endeavor, CA WIC solicited information from States in all stages of MIS replacement. In addition, MAXIMUS solicited information from Vendors to garner specific information on the functionalities of each relevant system. *Refer to 3.5.2 Information and resources for more information.*

The combined efforts sought to learn more about systems and specifically find out how closely modern WIC systems meet the needs and functional requirements of CA WIC. Survey responses included whether a system currently includes key functionalities desired by CA WIC (63 major functionalities were chosen for the survey). Figure 6 below shows how many of the functionalities are included in the systems<sup>18</sup>.

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<sup>18</sup> Surveys were compiled and represent systems as of September 2011.

**Figure 6: MIS System Comparison, Number of CA WIC desired functionalities**



See Appendix D: CA WIC MIS System Comparison, which shows all the survey responses from the States and Vendors.

#### **4.4.3.3 Operational Approaches to a Transfer/Modify a System**

For the **Transfer/Modify a System** option, several operational approaches were included in the cost benefit analysis. These alternatives refer to transferring a WIC data system currently operated by another state's WIC program and modifying it to meet California requirements. The following sections discuss the options, as well as assumptions, constraints, and unknowns that were included in the assessments.

Transfer models commonly include three approaches to address development, implementation, and post-rollout operations:

- California would transfer a system and participate in an established SAM Users' Group (SAM Consortium),
- California would transfer a system and participate in a Western States Consortium (Western States Consortium), or
- California would transfer a system but not participate in a Users' Group (No Consortium).

#### 4.4.3.3.1 SAM Consortium

Since there are no SAM systems currently available for transfer, the processes related to taking part in the SAM Consortium are still being refined, but several assumptions have been made when considering this opportunity:

- Modification required for implementation must be identified in the IAPD and approved by USDA FNS. These modifications may or may not be a subject to the Consortium Change Control Board and Executive Steering Committee.
- Modifications requested after implementation will be subject to prioritization by the Consortium Change Control Board and approval by the Executive Steering Committee.
- Modifications need to be implemented with a minimal impact on other State users.

Advantages related to this **Transfer/Modify a System** include:

- Priority for funding
- 100% Federal funding<sup>19</sup>
- Shared resources for regulation-related changes
- Shared resources for release testing and bug identification

Disadvantages related to **Transfer/Modify a System** include:

- **Timeline:** As demonstrated in the timeline presented later in this document, it is estimated that it will take California approximately 114 months to complete planning, design, development, and implementation of a transfer system. *See Appendix L: Alternatives Schedules.* Any state participating in a consortium with California would be subjected to this timeline in addition to any delays that may occur.
- **Management Approval Process:** In the timeline provided, California has estimated approximately 69 months of the 114 months for planning. *See Appendix L: Alternatives Schedules.* A majority of that time is allocated for completion of California specific documents and the approval processes. In addition to any established consortium approval process, the consortium will be subject to California's approval process and requirements for any project documents. This can create significant delays for the consortium in the coordination and finalization of documents.

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<sup>19</sup> This percentage may change based on limited Federal funding available in future years.

- Review of documents: Similar to the management approval process, an IT project of this magnitude will require inclusion of several departments within California. Each department will require review and approval of all project documents. Additionally, any changes that California makes to any of the project documents will need to be approved by the consortium and then finalized by each State of California department involved in the project. These multiple reviews will hinder the transfer of a new system for all states included in the consortium.
- Specific State needs: Due to California's size and the nature of its political system, there are requirements that have been included in California's functional requirements documents that may or may not be needed or wanted by other states. An example of this is the California 2010 mandate requiring GIS be included in any new system. This requirement may need development efforts and therefore will burden the project with additional development costs that other states in the consortium may not want, but would have to comply.
- EBT: Due to the estimated timing of implementation of a new system and the Federal mandate of all WIC agencies to be EBT-ready by 2020, California must coordinate the interrelated MIS replacement and EBT-related projects, which may affect the timeline to implementation.
- Potential externally created limitations on customizations.
- Timing and prioritization of changes is based on Consortium needs, not California's.

Unknowns related to **Transfer/Modify a System** include:

- If multiple contractors (or in-house resources) are used to provide modification support, who "owns" the source code and manages version control?
- Can California develop external modules to "hook in" to the base application without approval by the Change Control Board?
- What degree of decision making authority would CA WIC have related to modification prioritizations and timing?
- What happens if CA WIC has a change request that is rejected by the Change Control Board? Is the State restricted from making the change?
- As more states transfer the system, how will the dynamics of the group (i.e., competing needs of small versus large states, geographic states versus Inter Tribal Organizations Agencies) impact Change Control processes?

#### 4.4.3.3.2 Western States Consortium

In January 2009, the USDA proposed that the Washington WIC Program considered forming an MIS Consortium with other Western Regional states. The State considered this idea from two perspectives:

The advantages of the Western States Consortium model include:

- Reducing IT costs across the Western region and potentially for each individual state. Similar to the way Arizona hosts smaller WIC Agencies (such as the Navajo Nation), Washington could be the lead state in a consortium and provided system hosting and operations services to smaller States in the region. Learning from the Arizona model, this approach allows smaller agencies to benefit from the economies of scale afforded by the partnership.
- Providing opportunities for smaller states to acquire a modern system at a lower overall cost. If the other states select the same transfer system (or same solution), the States could collaborate in the procurement and implementation of the system, as well as share resources for system modification. This model was successfully employed by the SAM consortia and Iowa and North Dakota, who procured a transfer system together and shared costs and resources, as well as built consensus related to design of modifications.
- Promote best practices and resource sharing to avoid duplicating work effort through separate projects.

The potential to reduce IT costs and share resources for the Western Region as a whole is difficult to ignore. However, the States that might be involved (Washington, Nevada, Hawaii, and Oregon) are at different stages in the planning process. Before a decision can be made related to the type of system and actual costs and benefits related to this consortium approach, several activities need to occur:

- If a transfer option is identified through the Feasibility Study process, the same system must be selected by all consortium participants.
- Memoranda of Understanding must be signed and Project Charters must be established to provide a framework for the consortium approach including how costs for shared resources and services will be leveraged across the States. (i.e., will a lead state, such as California, host the other states or would the consortium focus on acquiring separately hosted systems for each member?).

- Establish a lead state through which contracting and funding will be managed.

After these items are defined, the partners must work together through the planning process to develop an IAPD to proceed to the next step. For California to consider this as a viable option, it would need to participate in all of the steps previously mentioned and face the same decisions Washington faced.

Disadvantages and unknowns related to this approach include:

- **Timeline:** As demonstrated in the transfer timeline (*see Figure 4: CA WIC Transfer Timeline*), it is estimated that it will take approximately 114 months to complete planning, design, development and implementation of a transfer system. (*see Appendix L: Alternatives Schedules*) Any state that was participating in a consortium with California would be subjected to this timeline in addition to any delays that may occur.
- **Management Approval Process:** In the timeline provided, California has estimated approximately 69 months of the 114 months for planning. (*see Appendix L: Alternatives Schedules*). In addition to any established consortium approval process, the consortium will be subject to California's approval process and requirements for any project documents. This can create significant delays for the consortium in coordination and finalization of documents.
- **Review of documents:** Similar to the management approval process, an IT project of this magnitude will require inclusion of several departments within California. Each department will require review and approval of all project documents. Additionally, any changes that California makes to any of the project documents will need to be approved by the consortium and then finalized by each State of California department involved in the project. These multiple reviews will hinder the transfer of a new system for all states included in the consortium.
- **Specific State needs** due to California's size and nature of its political system, there are requirements that have been included in California's functional requirements documents that may not be needed or wanted by other states. An example of this is the California mandate of 2010 requiring GIS is included in any new system. This requirement may need development efforts and therefore burden the project with additional development costs that other states in the consortium may not want, but would have to comply.

- EBT: Due to the estimated timing of implementation of a new system and the Federal mandate of all WIC agencies to be EBT ready by 2020, California is coordinating the interrelated MIS replacement and EBT projects. The concurrence of the implementation efforts at the same or close intervals may affect the timeline to implementation. Priority for funding, when compared to an individual transfer, may not be improved. States would receive priority based if a SAM system is selected. Although consortiums may be favored by the USDA, a consortium that does not choose a SAM may not be prioritized for funding.).
- System selections for other states have not been made, so it is unclear how many (if any) states would be interested in the model.

The analysis of whether a state should take part in a single state transfer of either a SAM system or Western Region consortium takes on a unique meaning when analyzing it from the perspective of CA WIC, the largest WIC State Agency in the country serving 15% of all WIC participants in the United States. Some of the State's local WIC agencies have more participants than all states with approximately 1.5 million participants; the next closest state is Texas with approximately 995,000 participants and New York with approximately 512,000. In addition, several large governmental entities and processes need to be addressed when taking on a project of this size in California. Analysis of the interlocking of the other consortium states has highlighted several issues that could arise if California were to join a consortium which include:

- California would need to be the lead state in the consortium due to its more extensive procurement requirements.
- There could be contracting issues and/or delays encountered between the consortium states or the MIS vendor and California due to specific State contracting requirements.
- California has several levels of approvals that would need to be addressed at multiple stages of the project that could create delays and hinder other states progress within the project.
- California may have specific requirements such as a GIS that other states do not need or want.
- Consortium states might need to comply with California specific documents and processes that the chosen vendor must address, potentially causing other states to incur additional costs and time delays.

#### 4.4.3.3.3 No Consortium

CA WIC may select a transfer system (SAM or non-SAM) to implement and maintain, without taking part in any consortium or Users' Group. CA WIC would be responsible for addressing any bug fixes, enhancements, and system modifications independently with the vendor. The advantages of this approach include flexibility to make changes and the opportunity to prioritize updates to the system. A disadvantage of not taking part in a consortium is that there would not be the opportunity to potentially leverage resources from other states.

Based on the analysis conducted, it has been concluded that **taking part in a consortium (SAM or Western States) would not be the best option for California** nor for the states and therefore is not a viable option. Additionally, the CA WIC preferred approach is to identify a system based on vendor responses of a "best fit" system in a procurement approach. This method could not be conducted in a consortium environment. CA WIC essentially will be asking for a custom version of a developed system, which does not fit in the SAM process model.

#### 4.4.4 In-House vs. Outsourced Services

In further consideration of choosing to procure and **Transfer/Modify a System** option, it is recommended that CA WIC contract with a qualified WIC system vendor to provide transfer and implementation services. CA WIC intends to issue a Request For Proposal (RFP) identifying its functional requirements and allow vendors to propose a solution that will best fit CA WIC's needs. This will allow a firm that has proven knowledge of WIC transfer systems (as shown through the competitive procurement process) to provide knowledge transfer services to California IT, providing them with the expertise needed to support and maintain the system, if desired. To attempt to transfer a system using only State of California IT resources would introduce risks related to the complexity and scope of the project. This increased level of risk would lessen the net benefit of choosing a transfer system. The inexperience of current State staff to transfer and modify a system as well as staff's limited availability with current day to day work commitments introduces significant risks.

#### 4.4.5 Recommended Alternative

Based on the analysis conducted above and confirmed through further exploration detailed in the rest of this document, it is recommended that CA WIC procure a SAM or existing state WIC system for transfer/modification. Further, CA WIC should not participate in a consortium.

## **5 Project Management and Organization (including external resources)**

### *5.1 Roles and Responsibilities*

#### **5.1.1 Federal Oversight**

WIC is funded through a Federal grant administered by the USDA. As such, the USDA has the authority and responsibility to provide administrative oversight and authorizations for projects within its scope of responsibilities. Approval for a WIC system replacement initiative must be received from the USDA.

Published guidelines in the USDA FNS Handbook 901 provide guidance to state agencies regarding the approval process and requirements. At a minimum, CA WIC must submit and receive approval for a Planning Advanced Planning Document (PAPD), a Feasibility Study, and an Implementation Advanced Planning Document (IAPD). These documents outline in detail the project concept, feasibility, cost benefits, alternatives, technical approach, project plan, schedule, and budget.

For a technology project such as this, FNS will also review and approve any procurement documents (RFP, RFO, etc.) contracts.

CA WIC has already received approval on the PAPD for the MIS project. This Feasibility Study/ Cost Benefit Analysis/ Alternatives Analysis document provides the Feasibility Study required by the USDA. Once reviewed and approved, this Feasibility Study will be included in an IAPD for final project approval, which will include a Business Capacity Study and detailed California Functional Requirements Document.

#### **5.1.2 Executive Sponsor and Project Sponsors**

The most successful projects have strong executive sponsorship provided by one or more individuals who have broad program and budget responsibilities and are firmly vested in the success of the project. As decision makers, they are the ombudsman for the project and will be called upon to champion it through legislative and oversight channels. The Executive Sponsor will be the CA WIC Director.

#### **5.1.3 State Project Oversight**

The MIS replacement project will be a highly visible project affecting participants and retailers in California's communities, as well as CA WIC, IT and local WIC agency staff. CA WIC in turn will have organizations such as the CTA, CDPH

Planning and Project Management Branch (PPMB), the California Department of Finance (DOF), and the California Department of General Services (DGS) that will provide project oversight, funding authority, and procurement services to ensure consistency with the State's best practices and to foster communications among state agencies.

#### **5.1.4 Steering Committee**

A project affecting this many stakeholders and with this complexity will make use of a senior level steering committee, convening on a monthly or bimonthly basis, to provide executive oversight, strategic guidance, high level problem resolution, top level communications, and adequate resource allocation. This committee will include high level WIC management overseeing the major elements of the WIC program: Fiscal, Program Services, Information Technology, and Vendor Management. The Steering Committee will work externally to keep up to date and solicit recommendations from oversight entities, operational project management, and other significant stakeholder representatives, such as other state programs.

#### **5.1.5 Project Management**

This project will require full-time operational project management with responsibility and accountability for direction and control of the daily project activities and for the quality and success of the final implementation.

### *5.2 Decision-Making Process*

It is expected that the Project Manager will have authority to make the day-to-day decisions needed to manage the project. Decisions with a meaningful impact on scope, schedule, or cost, including potential change orders, will be presented to the Steering Committee during regular or ad hoc meetings. Subject matter experts will provide recommendations related to their area of expertise, as applicable.

### *5.3 Project Team Structure*

The success of the implementation will be greatly assisted by having active leaders in key roles. For some roles, the leader may need to be an external contractor to provide specific skills that are not available in State staff. Also, more than one role may be filled by a single individual. Participation of each individual will be contingent on project solution. In any event, these staff resources must be clearly defined and receive full support of all management.

*Appendix F: CA WIC MIS Project Organization Chart* provides an overview of the recommended WIC system replacement project team organizational structure.

The project team should include the following roles and responsibilities:

- **Sponsor(s):** Provides broad program and budget oversight and acts as decision makers.
- **Steering Committee:** Provides executive oversight, strategic guidance, high-level problem resolution, top-level communications, and adequate resource allocation.
- **Project Manager:** Provides daily operations management and has accountability and responsibility for the success of the project.
- **Design, Development, Implementation (DDI) Contractor:** Provides design, development, and implementation deliverables and activities required for transferring of a MIS system that meets CA WIC functional requirements.
- **Quality Assurance (QA):** Ensures that all product deliverables and services are complete and of the highest quality consistent with Federal, industry, and State standards. Monitors the project work plan; identifies, and provides early warning of deviations from the expected activities. Following the suggestion of the USDA (in the 901 Handbook), QA will be separate organizationally from the development and implementation resources for the project to provide objectivity; therefore, this position will be filled by a contractor.
- **Independent Validation and Verification (IV&V):** Validates documentation of project plans for alignment with industry standards and best practices. Verifies project processes for adherence to documented project plans as well as project artifacts for completeness and ability to satisfy dependent project processes and work products. Develops and manages the project requirement traceability matrix. Following the suggestion of the USDA (in the 901 Handbook), IV&V will be provided by an organization that is technically, managerially, and independent of the development team.
- **Oversight Entities:** Ensures that all State Divisions affected or impacted by the WIC MIS project are considered in decision-making processes.
- **Subject Matter Experts:** Individuals available to the project manager to consult with on specific areas of expertise needed to support the project, such as local WIC agency/site operations, program administration, IT, or retailer management.

- **EBT Project Liaison:** Current EBT project manager or assigned individual available to provide consistency and continuity between the EBT and MIS projects.

### 5.3.1 Planning Teams

Each planning team<sup>20</sup> will have a Project Lead responsible for the teams' efforts. The team will consist of State and local agency staff from different areas of the state and areas of program administration. A team member is committed to the project work group and is a subject matter expert representing their program area. Team members will conduct work as directed by the Project Lead and participate in regular work/update meetings as scheduled. Each team member will be accountable to the area Deputy Director and Project Lead for work effort.

The planning teams will each focus on a major area of project management and planning:

- **Policy Team:** Coordinate efforts to modify and implement program policy changes as necessary.
- **Education & Training Team:** Ensure all WIC stakeholders are trained and education materials are created for competence in using the replacement system.
- **Technology Team:** Ensure that stakeholders have the equipment and support they need for an operational system.
- **Business Processes:** Ensure business processes support the new system.
- **Communications:** Coordinate communication with all Stakeholders.

### 5.4 Quality Assurance Strategies

The project team organization includes a position called "Quality Assurance." As stated above, this position is intended to ensure that all product deliverables and services are complete and of the highest quality consistent with Federal, industry, and State standards and to monitor the project work plan; identify, and provide early warning of deviations from the expected activities.

CA WIC will contract with a Quality Assurance (QA) provider and IV & V Service provider at the required time, based on policy. The assumption in the Feasibility Study is that the QA & IV & V support will begin with the design phase and

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<sup>20</sup> The project teams may be expanded or split to focus solely on MIS or EBT as needed.

continue through statewide implementation. An IV & V provider will also be contracted during the procurement phase.

## 6 Expected Costs, Benefits, and Risks

This section identifies significant costs, benefits, and risks associated with the proposed solution of selecting and transferring and modifying an existing system.

### 6.1 Costs

The tangible costs of selecting a transfer system include:

- **Software:** Financial costs of acquiring the system, making modifications, data conversion, testing, and maintenance.
- **Hardware:** Purchase of peripheral equipment to support a paperless WIC service site and any required equipment upgrades for State WIC agency and local WIC agency workstations.
- **Telecommunications:** Since it is envisioned that the system will be a centralized, web-based, online system, all sites will need to have reliable telecommunications access with sufficient bandwidth based on number of concurrent users. There is the possibility that the selected system may have a disconnected mode, which can be used for sites without telecommunications connectivity, but it is ideal for sites to be online (connected) to take advantage of the benefits of the centralized system.
- **Support:** During the acquisition of a transfer system, support is likely to include transfer and implementation services (related to software and hardware items listed above, training, on-site pilot and implementation support, and knowledge transfer) and external quality assurance support (deliverable review, User Acceptance Test management, pilot, training evaluations and implementation support).
- **Training:** Training can potentially require significant costs for the State of California. Currently it is estimated that there are 4,480 ISIS users. With the addition of new vendor management modules and State administration functionalities, the number of users is anticipated to increase.

The intangible costs of selecting a transfer system include:

- **Business Operations:** The core activities of local WIC agencies, such as certification and participant health education, will not change. However, the State WIC agency will see significant changes with the automation of most processes allowing staff and time allocation to be based on business needs and meeting USDA mandates instead of the limits created by manual processing. These changes will require business processes

reevaluation of and training on newer technology and the automation of many activities that were previously stand-alone processes.

- **Policy Changes:** Policy changes can include new processes or procedures related to how the system might change workflow. Since the system will also now be collecting more data than the current system, there may be new policies related to data collection and maintenance. During system conversion, policies will also need to be defined to address participant transfers between local agency sites using the existing system and those that have been migrated to the new system.
- **Training:** Intangible costs include the time required training staff, the rate at which the new system is implemented and accepted, and the time it takes staff to become fully proficient can add to the tangible training costs associated with formal training sessions.
- **System Conversion:** System conversion is a time-consuming process that can take time away from local WIC agency activities while clinic staff are becoming acclimated to the new system.

## 6.2 Benefits

The benefits of selecting a transfer system include:

- **Adherence to Standards:** The selected transfer system will be required to possess the minimum technical requirement, which will be consistent with the Federal model system requirements as well as California's technical architecture and security standards.
- **Improved Data Access:** By implementing a transfer system with a centralized reporting system, staff will be able to access comprehensive current and historical data within one system.
- **Improved Documentation:** The State will mandate during the procurement process that complete system documentation is provided by the vendor.
- **Implementing a Functionally Robust Solution:** There are certain features of ISIS that could be improved with the implementation of a next generation system. All transfer systems considered in the detailed analysis are considered FReD compliant.
- **Lower Operational Costs:** Currently CA WIC spends almost \$19 million to annually operate and maintain the current system(s). *Figure 7: CA WIC Current Annual System Costs* shows CA WIC current annual Costs, *Appendix G: Current System(s) Operating Expenses* provides the breakdown of

each section, provided by California, of the costs in the table below. As compared to *Figure 14: CA WIC MIS Alternative Costs – Transfer* in section 12. The costs of implementing a transfer solution will lower CA WIC’s annual operational costs. Specifically, costs such as VWIX and ExtraNet operational costs as well as paying a local WIC agency to manage the Breastfeeding Peer Counselor database will no longer be necessary with a new comprehensive system.

**Figure 7: CA WIC Current Annual System Costs**

CA WIC MIS	Annual Cost
Mainframe Costs	\$7,907,000
WIC Extranet Reporting Costs	\$625,812
VWIX Costs	\$903,748
Salaries and Benefits	\$3,993,000
Miscellaneous Expense	\$230,000
Banking Costs	\$3,700,000
Department Overhead	\$1,367,000
<b>Total Annual Costs<sup>21 22</sup></b>	<b>\$18,726,560</b>

Some of these benefits would apply to several system acquisition models analyzed, not only to a transfer system. If the State determines that a non-SAM system is the best match for transfer some of these costs and benefits will change. Nonetheless, the selection of a non-SAM transfer system is not expected to change the outcome of the feasibility study nor change the proposed solution.

<sup>21</sup> Ongoing costs do not include regularly utilized contracted support staff. Contract staff have been used for over ten years. In the last five years, two to three contractors at an annual cost of \$250,000 to \$1 million.

<sup>22</sup> IT consolidation efforts are currently underway. At the completion of the consolidation effort (late 2012), a minimum of technical staff will remain at WIC while most staff will join a pool of CDPH IT staff. IT support will be allocated based on prioritization and therefore the resources for ongoing maintenance and development will change. The annual system cost will change due to the reallocation of overhead expenses (across most categories) and staffing.

## 7 Impacts

### 7.1 Intra-Agency

There are opportunities to improve coordination with other programs within the State. The WIC systems that are currently available are built on architectures that more easily allow interfaces with other programs. For example, an interface could be built to verify immunization status with the CDPH Immunization Branch.

### 7.2 Program(s)

The impact to the State WIC Program and the local WIC agencies will be significant, as the replacement system will create the opportunity to review and revise business processes. The processes related to data replication and transfers will be completely revamped or eliminated. New site process flows will need to be designed to maximize the new automated resources. Additional equipment will be required to support new activities, such as electronic signature capture and document scanning, which means that the local WIC site environment may need to be reassessed. Program administration at the State WIC Program will be transformed to be an integrated set of information and processes which will maximize staff efficiency and program integrity.

### 7.3 Sub-Program(s) and Adjunct Program(s)

The subprograms, or adjunct programs, administered by CA WIC are the Breastfeeding Peer Counselor Program (BPC) and the Farmers Market Nutrition Program (FMNP).

- **BPC:** Annual USDA grant funding has encouraged investment in breastfeeding promotion and support beginning in 1989. Since 1995, additional distinct grant funding was added to formalize the program. Since 2004, CA WIC Program has received \$2 million for the implementation of the BPC Program using the “Loving Support through Peer Counseling” model. In 2011, the grant funding increased to \$12 million per year, which supports the programs operation at 50 local agencies.
- **FMNP:** Congress established the FMNP in 1992 to provide fresh, unprepared, locally grown fruits and vegetables to WIC participants, and to expand the awareness, use, and sales of fresh fruits and vegetables at farmers’ markets.

Within the potential transfer system, there are capabilities to track the inventory and issuance of FMNP vouchers. The ability to manage this

functionality in an automated system would allow better management of the FMNP benefits and would help the State ensure that the benefits are properly tracked, similar to FIs.

#### *7.4 Customers of Agency Activities*

Many of the existing manual administrative tasks will be automated thereby enabling the State WIC Program to operate more efficiently while providing improved customer service. New functionality, both at local WIC agency sites and online, will benefit the WIC program and ultimately taxpayers by reducing service delays and costs. WIC participants will also benefit with reduced waiting times for services such as transfers, improved access to historical information, and self-service access using a public facing online interface.

Vendors are expected to benefit from the ability to perform some transactions online, such as submitting price surveys and applying for authorization using a public facing online interface. Additionally, vendors will receive better services from State WIC Program administration through integrated case management capabilities and electronic communications. At the initial implementation, it will be necessary to train our retailer vendors on our new FI design as it will slightly differ from our current legacy system FI design. In some states, the check stock color was changed to more easily differentiate new FIs from old check stock.

Since WIC is a grant program, the reduction of IT costs will enable the program to redirect money to providing benefits and services to participants. The State of California will also be alleviated of the burden of maintaining a highly disparate system comprised of multiple architectures, operating systems, and programming languages. The consolidated IT branch has dedicated more than a dozen staff to maintain the mission critical WIC information system(s) and will be more available to support other public health initiatives.

#### *7.5 Other*

The USDA is expected to be impacted positively in several ways. Regardless of which system CA WIC chooses to transfer/modify, it can be assumed that the new system will provide CA WIC the ability to collect all mandatory information and provide accurate data. These capabilities will allow CA WIC to better meet current and future Federal and State reporting requirements. An approved transfer/modified system will also ensure that California's system is compliant with FNS requirements, including EBT-readiness and the remediation of findings from previous STAR reports.

## 8 Organizational Effects

The implementation of the replacement system will affect some stakeholders, but will not greatly alter the existing organizational structure. The effects on the organization that are likely to occur (regardless of the implementation alternative selected) are described in the following sections.

### 8.1 *Impact on Business Processes*

The replacement of the system(s) with a web-based, centralized system is anticipated to streamline most processes. As the MIS implementation will primarily effect State WIC Program business processes, it is prudent to invest early and devote significant resources to re-engineer existing processes to be more efficient. This will capitalize on the MIS investment and lead to long-term increases in efficiency. Local WIC agencies will have more tools to provide efficient management of the sites and front line staff will have a more dynamic application that is not data entry centered. Recent changes in how the WIC program is operated have resulted in a shift to participant-centered services, where an interview is more of a conversation than a data collection activity. A vast cross section of staff at the State WIC Program will benefit from utilizing an integrated tool that reduces the need for manual tasks and activities.

### 8.2 *Training Needs*

The WIC Help Desk staff that provides technical support for the systems will need to undergo extensive training. The system will be more robust, replacing three independent systems. The new system is anticipated to provide technical assistance tools for Help Desk staff as well as help functional assistance within the application for all users. It is expected that the Help Desk staff will need to acquire new technical skills to meet the changing demands of the new system. A future consideration is that the State can also choose to contract out additional levels of help desk services during and after implementation.

Local WIC agency staff will be the primary users requiring extensive training. Training will need to be scheduled with all 84 local agencies. These trainings will need to occur for the approximately 4,000 statewide users before implementation. The actual length of training and the schedules will need to be determined, based on the system and procurement options selected. State WIC Program staff will also require training. Since these staff currently use the system minimally, significant training on the new system will be required. This training will need to occur early in the process to ensure that State WIC Program staff can assist local WIC agency staff during system rollout.

During transition of the system, staff from both the State WIC Program and local WIC agencies should be involved in both testing and training. Involving local WIC agency staff in the end-use testing will allow them to become familiar with the system prior to it going live, give them an opportunity to voice their questions and concerns, and assist the project in gaining stakeholder buy-in. It will also provide the DDI vendor and the State WIC Program staff with critical feedback from the end-user point of view. Training will be required to ensure that system users are effective and make productive use of the new system. All users should receive thorough, detailed training during implementation, with periodic refresher courses, and special-focus classes.

### *8.3 Job Content*

Duty statements for all WIC staff and IT support staff will need to account for changed policies and procedures. For example, there may be a need for adjustments to site flow or a reevaluation of roles, owed to increased data security issues, but the general WIC business processes are not anticipated to change so much that significant job content changes will be required for State Agency or local WIC agency staff. However, the activities of the CDPH IT staff may change dramatically with a new MIS. Specifically, activities related to the time-consuming aspects of maintaining the complex system such as adding data fields, fixing errors found in multiple data tables will be reduced, possibly eliminated. This could free up a significant amount of time for the CDPH IT staff.

### *8.4 Impact on Organizational Structure*

During the implementation phase of the project, the primary organizational impact will be the need for a full-time project manager to focus solely on the replacement of the system. In some States, an existing staff member takes on the additional role of project manager, but California will have a dedicated project position that focuses only on the replacement system implementation, due to the time, and effort needed to manage a large-scale initiative such as this. Additionally, staff subject matter experts will be needed to be dedicated and take part in design confirmation sessions, to take part in decision making related to a system set up (such as parameter settings and drop down lists), policy revisions, testing, and, depending on what is contracted, training and rollout support.

A secondary impact will be the reduction of contracted IT costs. With the transfer of a new system, the historical use of contracted developers with specialized expertise in the legacy systems' architecture will no longer be necessary to operate the new system. Further, with a centralized system, IT staff will no longer be required to touch each component of a system for upgrades and new

releases. Finally, less total IT staff will be needed to provide ongoing maintenance and support operations.

### *8.5 Hosting and Operations*

By California statute, the system must be hosted at a Tier 3 Data Center<sup>23</sup> such as OTech.

### *8.6 Ongoing Modifications*

A matter for future consideration is how CA WIC will approach ongoing modifications. As of the development of this document, there is not enough information to determine whether modifications should be outsourced or supported in-house.

### *8.7 Other*

CA WIC will need to consider and plan for possible coordination with the CA WIC EBT project, expected to be in its planning phase in late 2012.

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<sup>23</sup> See IT Policy Letter (ITPL) 10-14 available at:  
[http://www.cio.ca.gov/Government/IT\\_Policy/pdf/ITPL\\_10-14\\_Data\\_Centers\\_10292010\\_Final.pdf](http://www.cio.ca.gov/Government/IT_Policy/pdf/ITPL_10-14_Data_Centers_10292010_Final.pdf)

## 9 General Assumptions

For each section of this document, assumptions are addressed. This section highlights key assumptions that drove the process, analysis, and selection of the proposed alternative. These assumptions are as follows:

- When considering a transfer option, a generic transfer system was used.
- The transfer option assumes that the selected system will be a web-based system and that the State will contract for support during the implementation.
- California would transfer a system but not take part in a Users' Group (No Consortium).
- QA and IV&V will be contracted from external sources. For the Cost Benefit Analysis, QA & IV&V services will be contracted at during the procurement process and the beginning of the Design phase of the project.
- It is assumed that the State will competitively procure a system with the transfer, modification, and implementation services from a qualified system vendor.
- Following an industry best practice, ongoing maintenance and operations will manage by an outside vendor through the duration of roll out and at minimum an initial one (1) year warranty.
- Contracted IT staff will no longer be needed to augment State of California IT staff for ongoing maintenance and operations if the Custom Development or Transfer alternatives are chosen.
- Moderate modifications would initially be made to the transfer model system selected to customize to CA WIC unique needs. The scope and content of any required modifications will be determined and documented during the update of the IAPD and budget once a system is selected.
- No change in WIC staff salaries and benefits, and banking costs beyond the inflation factors indicated. Without a known solution, specific impacts in these areas are unknown.
- Schedules are estimated and implementation approaches are based on industry trends, lessons learned from similar initiatives, and additional review of documentation required by the State of California.

**Equipment Effects**

- Describe how new equipment requirements and changes to currently available equipment will be met; for example do current hardware, telecommunications, and/or network services have the capacity to meet new system requirements

**Software Effects**

- Describe any required additions or modifications needed to existing applications and support software to adapt them to the proposed system(s) and explain how such needs will be met
- Describe any data conversion activities that will be necessitated by adoption of the proposed system

**Organizational Effects**

- Describe any organizational, personnel, and skill requirements that will change and how the change will be handle.

**Program Effects**

- Describe any conflicts or need to request a waiver (SNAP only) from program requirements

**Resource Effects**

- Management, programmatic, and technical resource requirements
- Computer processing resources required to develop, convert, implement, and test the new system(s)

**Operational Impacts – How the development process will take into account the effects on operations**

- User operating procedures
- Operating center procedures
- Operating center and user relationships
- Telecommunications impacts on the operating center and user sites
- Source data processing
- Data retention requirements and information storage and retrieval procedures
- Output reporting procedures, media, and schedules
- System failure consequences and recovery procedures
- Plans for system support throughout the system's life

**Site/Facility Effects**

- Describe building modification requirements and how they will be met

### ***Fiscal Impacts***

- *Describe cost factors that may influence the development, design, and continued operation of the proposed system(s)*
- *Identify the estimated total developmental cost and estimated annual operating costs and who will pay for these expenses*

### ***Justification***

- *State the reasoning that supports the selection of the proposed system(s) based on the aforementioned evaluation criteria and elimination of other alternatives*

The proposed solution is the replacement of the CA WIC system(s) with a comprehensive system that will be transferred from another state. It is assumed that contracted support will be used for the acquisition and implementation, but that the State may operate and maintain the system in-house after statewide rollout, and any additional contracted warranty periods. This option includes several operational approaches that have varying costs and benefits over the course of the project.

## *10.1 Specific Work Products*

As part of any MIS implementation, a set of work product documents is required. The following section identifies the work products that are typical of a MIS transfer/modification project and should be considered by CA WIC. Depending on the contracting options selected, the work products might be developed by the State or a contractor.

Documentation requirements have been identified and grouped by phases of the project.

### **10.1.1 Planning Phase**

During the planning phase, CA WIC will determine the implementation approach, select the specific transfer system to implement, and prepare for executing the project.

- **Feasibility Study/Alternatives Analysis:** This document summarizes the preliminary results that determine whether the considered project is technically, financially, and operationally viable and presents the results of the alternatives analysis.
- **Functional Requirements Document:** This document defines the functional requirements expected by CA WIC to be incorporated into the system. It will be a more detailed version of the Requirements Summary

conducted in this Feasibility Study. This document was created to be included with the IAPD.

- **Implementation Advance Planning Document (IAPD):** This document, developed for submission to the USDA, addresses systems analysis, design, requirements definition, development, integration, testing, and deployment of the system. It includes an anticipated budget and expected Federal financial participation. This document and its budget must be approved by the USDA before the project can proceed. States typically contract out the development of this document.
- **State of California Feasibility Study Report (FSR):** As part of the Information Technology reporting requirements, the State of California may require a document similar to the IAPD, or may accept and review the IAPD. Any additional information needed will be organized, prepared, and submitted for State approval by the State WIC Program staff.
- **Request for Proposals (RFP):** The State will need to develop the procurement documentation used to hire a qualified contractor or contractors for transfer/ implementation and quality assurance services. Development of the RFP(s) may or may not be contracted.
- **Evaluation Methodology:** As part of the procurement process, a process for evaluating bidders should be defined and documented along with the creation of the evaluation tools used for scoring contractor proposals. If the RFP development is contracted, the evaluation methodology and tools are typically required as part of the contract.

Also, it is recommended that during this phase<sup>24</sup> the State considers the development of documents and plans that will support overall project management:

- **Project Management Plan:** This document will identify all the information associated with the project management processes, the tools used, and how the project is executed, monitored/controlled, and closed. The Project Management Plan also contains plans for managing the following areas of the project:
  - Project integration management
  - Scope management

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<sup>24</sup> The planning documents can be created during the Planning phase or during the initiation of the Design and Development phase.

- Time management
  - Cost management
  - Quality management
  - Human resource management
  - Communication management
  - Risk management
  - Procurement management
  - Change management
- **Project Work Plan:** The work plan is ultimately part of the Project Management Plan, but is important enough to stand as a separate document. The work plan lays out the project schedule and identifies dependencies, milestones, and resources. It should be updated throughout the project to reflect project progress.

### 10.1.2 Design and Development Phases

The following list of documentation is typical of a MIS transfer project. This list may be adjusted based on California's requirements. Since California is not selecting a system, these documents would be required to be provided by the DDI contractor.

- **Functional Design Document** provides general descriptions of the system design components required to address the functional requirements of the system.
- **Detailed Design Document** provides detailed descriptions of the total system configuration including, hardware, functionality, data elements, file layouts, process flows, interfaces, reporting, transaction processing, settlement and reconciliation, customer service, and security.
- **Test Plan and Test Scripts** addresses all major system components described in the Detailed Design Document and are used for User Acceptance Testing.
- **Gap Analysis** will be verified through design confirmation sessions, as the State determines if required modifications to the transfer system or documents changes to policy will be required.
- **System Securities Plan** details the security provisions established within the system including the use of user access roles and permission levels.

- **System Disaster Recovery (Backup)/ Continuity of Operations Plan** details the approach to disaster recovery and how operations can continue at the State WIC Program and local WIC agencies if a disaster or other interruption in the standard operating processes occurs.
- **System Implementation Plan** details activities, steps, and procedures involved in rolling out the system (pilot and statewide).
- **Training Plan** addresses how all stakeholders will be trained and includes sample training materials.
- **Data Conversion Plan** addresses how data conversion activities will happen, the scope of the data conversion, appropriate data mapping artifacts and post-conversion data validation.
- **Business Process Review/ Policy Adjustment** addresses changes to the policies and procedures, as well as business practices, in the State.
- **Site Readiness Checklists** prepares for implementation, site readiness checklists provide a vehicle to ensure that all sites have the required equipment, infrastructure, capacity, and training required to operate the system.
- **System Documentation** is any additional required documentation beyond the design documents already addressed above.

### 10.1.3 Implementation and Operation Phases

- **Pilot Evaluation** provides an assessment of the pilot phase leading to a recommendation on whether the State should move forward with statewide implementation or make further adjustments before proceeding. This may be provided by the QA contractor.
- **Training Materials** is a variety of training materials will be needed for all stakeholder groups.
- **Manuals** are documentation of various aspects of the system will be needed by users as part of implementation and during system operations
  - Policy and Procedures Manual
  - Online or System Help Manual
  - Reports Manual

## 10.2 *Technical Tools Used to Support the Solution (Equipment Effects and Software Effects)*

Specific technical tools will be dependent on the selected transfer system and contractor selected. It is required that the MIS be developed using state-of-the-art technologies, including a web based interface, online access for participants through a participant portal, and standard communication protocols. The system will also be required to conform to all current CA WIC and CDPH standards.

As the existing transfer systems are designed to operate on Windows-based computers, some existing equipment may be able to be leveraged due to the web-based nature of the system.

## 10.3 *Major Functions to be Provided*

Regardless of the specific system selected for transfer/modification, the replacement MIS will provide a consistent minimum set of functionality. The proposed solution includes the system components described below, as defined by the USDA FNS FReD and identified by the State (*see Appendix C: Functional Requirements Summary*).

- Certification
- Nutrition Education, Health Surveillance, and Referrals
- Food Management
- Food Benefit Issuance
- Food Benefit Redemption, Settlement and Reconciliation
- Financial Management
- Caseload Management
- Operations Management
- Vendor Management
- Scheduling
- System Administration
- Reporting

## 10.4 *New Organizational Structures and Processes Necessary to Support Implementation (Organizational Effects)*

*Section 8: Organizational Effects* includes descriptions of the organizational structures and processes that will be impacted by the new system.

### *10.5 Operational Impacts*

Based on the analysis of the current systems available (or in development) for WIC to transfer, the system will be robust, providing the functionality required by CA WIC but using technology and an architecture that is not an exact match with the existing California environment. This means that user procedures and policies will need to be updated. The State WIC Program's user manual will need to be updated to reflect new system terminology, procedures, and process flows.

### *10.6 Site / Facility Impacts*

The implementation of the system may require some changes to facility planning, but no large impacts are foreseen. The transfer system will not require building modifications.

### *10.7 Fiscal Impacts*

The USDA is generally the single source of funding for WIC system modernization projects. When Federal WIC dollars are used, the appropriate Federal laws and regulations apply. At the current stage of planning, the operating assumption is that the entire cost of the system transfer and implementation project will be requested from the USDA. However, California will assess funding options including existing funds as well as those available from the regional and national offices.

### *10.8 Justification*

The selected transfer system will need to meet the programmatic and functional requirements of CA WIC. The selected transfer option will be compatible with other state architectures. The transfer system will provide increased processing capacity at the Local Agencies due to its centralized database structure and will support CA WIC's desire for improved data integrity, thus allowing staff resources to focus attention on addressing the nutritional needs of participants.

## 11 Proposed Schedule

*For any alternative still being considered after the alternatives analysis, outline a proposed schedule for all implementation activities, such as systems design, development, testing, quality assurance, data conversion, and deployment and address the following components:*

- *Specific activities to be performed by the user in support of development of the proposed system(s)*
- *Major milestones and management decision points*

This section provides an estimated timeframe for the proposed transfer alternative. Major tasks and resources required for each project phase, including external and internal staff resources, are identified. Key milestones and decision points are also noted.

The primary resources can be from the State (CA WIC or other State staff) or contractors, depending on the specific procurement approach determined during the Planning phase.

The project schedule, from planning to statewide rollout, is expected to last approximately 114 months. The actual dates will depend on the approval and procurement cycles, as determined by the procurement approach, as well as the scope of any modifications. It is assumed that moderate modifications would be made to the selected transfer system, but if the State requires significant modifications, the project schedule will need to be adjusted accordingly.

### 11.1 Alternative Consideration

#### 11.1.1 Specific Activities and Milestones

Figure 8 below provides a timeline for the transfer of a system. To see the timelines for all alternatives *see Appendix L: Alternatives Schedules*.

**Figure 8: CA WIC System Transfer Timeline**

KEY TASKS/ MILESTONES	PRIMARY RESOURCES (STAFF)	DURATION
<b>Planning Phase</b>		
(Full) IAPD Development	State or Contracted, FNS Approval	69 months
IAPD (possible) amendments and review <i>*Decision point: will the State implement, operate, and/or maintain the system in house or contract? Which transfer system will be selected? Which operational approach will be used?</i>	State, State Approval <sup>25</sup>	
RFP Development/ Evaluation	State or Contracted, FNS & State Approval	
RFP Release	State and Bidders	
Vendor Proposals		
Contract	State, FNS & State Approval	
<b>Design Phase</b>		
Project Initiation	State or Contractor	6 months
Final Work plan	State or Contractor	
Planning Documents	State or Contractor	
Requirements Validation/Gap Analysis <i>*Decision point: will additional modifications be required through the established change control process?</i>	State and Contractor, if applicable	
System Requirements and Design Documents	State or Contractor	
<b>Development Phase</b>		
Business Process Review/ Policy Adjustment	State	12 months

<sup>25</sup> Anticipated duration of State approval the planning documents and RFP is seven months each. This schedule is high level and does not include all State required project documentation that will be required. At this time, all State required documentation is unknown.

KEY TASKS/ MILESTONES	PRIMARY RESOURCES (STAFF)	DURATION
System Modification, Technical Testing, and Revisions	State or Contractor	
Site Readiness Checklists	State or Contractor	
Equipment Procurement (Pilot)	State, Local Agencies	
Operational Planning, Documentation, and Training Materials	State or Contractor	
Data Conversion <sup>26</sup>	State or Contractor	
Central Operations Preparation	State or Contractor	
User Acceptance Testing <i>*Decision point: proceed to pilot only if UAT performance criteria have been achieved.</i>	State or Contractor	
<b>Pilot Operations Phase</b>		
Training (Central Office- IT)	State or Contractor	5 months
Training (Pilot Site and State)	State or Contractor	
System Pilot Test- 3 Month	State or Contractor	
Pilot Evaluation and System Modification/ Retesting <i>*Decision point: proceed to rollout only if pilot performance criteria have been achieved.</i>	State or Contractor	
<b>Statewide Rollout Phase</b>		
Equipment Procurement (Statewide)	State Approval, State, Local Agencies	22 months
Statewide Training	State or Contractor	
System Rollout	State or Contractor	
System Documentation	State or Contractor	
<b>Maintenance Phase</b>		
Initial 1 Year Warranty	Contractor, if applicable	1 year
Extended Warranties	Contractor, if applicable	1 year each, up to 3 years

<sup>26</sup> Data conversion will be tested during the development phase, but will also take place as part of pilot and rollout activities.

## 12 Cost Benefit Analysis

This cost benefit analysis (CBA) compares feasible system alternatives based on identified costs. MAXIMUS developed a set of detailed cost analysis worksheets to perform an analysis of the chosen alternative (transfer system) and compare that information to the estimated costs of the other alternatives. The detailed cost analysis worksheets for a transfer system have been provided in *Appendix K: Alternative Cost Estimate - Transfer*.

### 12.1 Assumptions

The assumptions made for the CBA include:

- Ongoing cost estimates assume no change in WIC staff salaries and benefits and banking costs beyond the inflation factors indicated. This is because, without a known solution, specific impacts in these areas are unknown.
- Schedules are estimated, implementation approaches are assumed and costs are not based upon a final work breakdown structure, but are based on industry trends and lessons learned from similar initiatives.
- Costs for alternatives are based upon industry trends and knowledge, but have been adjusted to reflect California's environment and requirements where appropriate.
- It is assumed that the Maintain the Status Quo, Transfer, Modify the Current System, or Custom Development alternatives previously described would not require an increase of State staff as California has CDPH IT and ITSD.
- It is assumed that the **Maintain the Status Quo, Modify the Current System, Custom Development** or **Transfer/Modify a System** alternatives will not be built to meet the same set of requirements. Detailed decisions about each approach would impact the specifics. Recurring costs are anticipated to be similar for the first two options as the annual ongoing costs would not be eliminated. Costs for **Custom Development** are based on current costs for the development of the Crossroads system.

Specific assumptions used in developing the Transfer (No Consortium) cost model include:

- The State will contract with a vendor for transfer and implementation services.
- The State may not receive direct benefit from modifications and enhancements made by any Users' Group; the State will independently make modifications and enhancements based on California needs and priorities.
- The State may not receive direct benefit from updated training materials and tools developed by any Users' Group.

Labor estimates have been converted to dollar amounts based upon the estimated hourly rates shown in Figure 9 below.

**Figure 9: California Estimated Project Staff Hourly Rates**

Staff	Hourly Rate <sup>27</sup>	State or Contracted
Data Processing Manager (DPM) III	\$68.00	State
DPM II	\$61.00	State
Professional (Subject Matter Experts)	\$45.00	State
IT Professional (WIC and ITSD) <sup>28</sup>	\$53.73	State
Help Desk	\$44.57	State
Student Assistant	\$15.00	State
Local WIC agency Staff	\$20.00	State
Senior Analyst/ Managerial	\$125.00	Contracted
Programmer/ Technician/ Trainer	\$105.00	Contracted
Testing/ Support	\$85.00	Contracted

### 12.2 Project Costs

This section outlines the estimated project costs for each of the four alternatives addressed in the alternatives analysis. The approach to the analysis of each of

<sup>27</sup> The rates presented in the table reflect estimated rates based on current State of California pay scales and include salary as well as benefits.

<sup>28</sup> The salaries for IT staff at WIC and CDPH ITSD were averaged. In general, the classification levels at ITSD are higher than the classification levels used by WIC.

the alternatives was similarly conducted. However, the analysis of each of the alternatives varied based on the cost components required for the specific alternative.

Figure 10 below details the cost and time estimated for each alternative. A more detailed breakdown of the project schedule for each alternative is included in *Appendix L: Alternatives Schedules*

**Figure 10: Summarized Cost Benefit Analysis of Alternatives**

Alternative	Estimated Project Development Costs	Estimated Duration in Months	Estimated Duration in Years
Maintain the Status Quo	\$9,603,807	77 months	6.4 years
Modify the Current System	\$24,795,129	149 months	12.4 years
Custom Development	\$37,590,871	108 months	9 years
Transfer/Modify a System	\$28,714,408	114 months	9.5 years

### 12.3 Rationale for Cost Estimates

As discussed in previous sections, this study has addressed four (4) alternatives including:

- **Maintain the Status Quo** retains the current system and implements only USDA mandated modifications.
- **Modify the Current System** upgrades the current system to meet State program and technical requirements.
- **Custom Development** develops a comprehensive new system from the ground up.
- **Transfer/Modify a System** transfers a WIC data system currently supporting another state’s WIC program and modifies it to meet CA WIC requirements.

### 12.4 Maintain the Status Quo

Figure 11 represents the estimated costs for keeping the current system at Status Quo. As expressed in earlier in the analysis of this alternative, the term status quo is misleading. The current system cannot be kept as is without any

modifications. The current system has failed to record and report on mandated data. Status Quo in this context refers to keeping the current system and on making the minimal modifications necessary to meet Federal regulations (*see Section 4.4.1: Status Quo for detail on these modifications*). The cost considerations for making these changes considers the staff and contractor time to make the necessary changes to the current system. Because the system itself will not fundamentally change, it is assumed that the annual costs to maintain the system would remain relatively the same.

**Figure 11: CA WIC MIS Alternative Costs – Status Quo**

CA WIC MIS - Status Quo	Project Cost
Staff - WIC	\$3,936,734
Staff - ITSD	\$4,560,000
Contractors	\$234,000
Hardware Purchases	\$0
Software Purchases	\$0
Telecommunications upgrades	\$0
Telecommunications hub upgrades	\$0
<i>Sub Total Cost</i>	<i>\$8,730,734</i>
Data Conversion	\$873,073 <sup>29</sup>
<b>Total Cost</b>	<b>\$9,603,807</b>

The primary change seen by CA WIC in annual costs would be a reduction in staff costs by \$4,856,844 during design and development<sup>30</sup>. Staff time cost is considered above for the duration of the design and development phase of the project. Once the project is complete, the staff costs would return to the annual calculation of costs. *See Appendix H: Alternative Cost Estimate – Maintain the Status Quo* for cost breakdown details.

<sup>29</sup> Using Industry standard that data conversion is 10% of the project total

<sup>30</sup> Staff labor costs for design and development have been included in the total project cost estimate. The reduction of annual labor costs by \$4,856,844 ensures there is no double counting of staff labor costs during implementation of the new MIS.

## 12.5 Modify the Current System

Figure 12 below represents the estimated costs for modifying the current system which refers to making the modifications addressed in the Status Quo alternative and also incorporating the functional requirements California has identified it requires in a new MIS system. As with the status quo option, the **Modify the Current System** considers costs for State staff and the contractor to make the necessary changes. Because the system itself will not fundamentally change, it is assumed that the annual maintenance costs of the system would remain relatively the same. The primary change seen by CA WIC in annual costs would be a reduction in staff costs by \$6,824,276 during design and development<sup>31</sup>. Staff time cost is considered above for the duration of the design and development phase of the project. Once the project is complete the staff costs would return to the annual calculation of costs. An additional item to take into consideration is the timeline for modifying the system. As demonstrated in *Figure 10: Summarized Cost Benefit Analysis of Alternatives*, the time to modify the current system is longer than any of the other alternatives. See *Appendix I: Alternative Cost Estimate – Modification* for cost breakdown details.

**Figure 12: CA WIC MIS Alternative Costs – Modifying the Current System**

CA WIC MIS - Modification	Project Cost
Staff – WIC	\$5,179,030
Staff – ITSD	\$14,250,000
Contractors	\$3,111,996
Hardware Purchases	\$0
Software Purchases	\$0
Telecommunications upgrades	\$0
Telecommunications hub upgrades	\$0
<i>Subtotal Cost</i>	<i>\$22,541,026</i>
Data Conversion	\$2,254,103 <sup>32</sup>
<b>Total Cost</b>	<b>\$24,795,129</b>

<sup>31</sup> Staff labor costs for design and development have been included in the total project cost estimate. The reduction of annual labor costs by \$6,824,276 ensures there is no double counting of staff labor costs during implementation of the new MIS.

<sup>32</sup> Using Industry standard that data conversion is 10% of the project total

## 12.6 Custom Development

Figure 13 represents the estimated costs for building a new system from the ground up, or the **Custom Development** option. In order to analyze the cost to build a system, this option was estimated by using costs from the Crossroads project, a similar project already in development. Although this project consists of four states, it does approximate California in the large number of participants our State's complexity.

It should be noted that the timeline for building a system in Figure 10: Summarized Cost Benefit Analysis of Alternatives is based on the estimate of how long it would take California to build a system and not the current timeline of Crossroads. *See Appendix J: Alternative Cost Estimate – Build* for cost breakdown details. It is estimated that the annual costs for maintaining the system after statewide rollout could be around \$2 to \$4 million; however, this annual estimate does not include costs incurred by CA WIC due to government overhead allocations or interdepartmental charges. The \$2 to \$4 million range is an estimate based on feedback received from states currently maintaining a modern MIS (*see Appendix D: CA WIC MIS System Comparison*).

**Figure 13: CA WIC MIS Alternative Costs - Build**

CA WIC MIS - Build <sup>33</sup>	Project Cost
Hardware	\$6,792,031
Telecommunication Evaluation	\$102,870
Personnel	\$8,898,154
QA Contract	\$2,035,128
DDI Contract	\$18,454,457
Travel	\$1,249,481 <sup>34</sup>
Other Cost	\$58,750
<b>Total Cost</b>	<b>\$37,590,871<sup>35</sup></b>

<sup>33</sup> These costs come from the Crossroads project (November 2011).

<sup>34</sup> Because Crossroads has multiple states involved, they always have to travel to meet for anything from JAD sessions, ESC meetings, demos, etc. Since CA is one state and doesn't have to travel for the same reasons as Crossroads, the travel amount for Crossroads has been reduced to 40% as an estimate of California's potential travel costs.

<sup>35</sup> Cost estimate as of March 8, 2011

## 12.7 Transfer System

Figure 14 represents the estimated costs for transferring a new MIS that is currently available or is anticipated to be when California will be ready to choose a system. As stated previously, it is California’s intention to release an RFP with its detailed functional requirements for procurement of a system and invite MIS vendors to bid the “best fit” solutions. Costs are based on industry standards, contractor and State of California labor costs, and system requirements. See Appendix K: *Alternative Cost Estimate - Transfer* for cost breakdown details. Similar to the build alternative, it is estimated that the annual costs for maintaining the system after statewide rollout would range from \$2 to \$4 million; this annual estimate does not include fixed costs incurred by CA WIC due to government overhead allocations or interdepartmental charges (see Appendix D: *System Comparison*). Due to California’s large participant load, these averages may need to be adjusted higher to account for higher ongoing vendor maintenance costs. Even if costs doubled, the cost is still significantly less than the State’s current annual costs of \$19 million.

**Figure 14: CA WIC MIS Alternative Costs – Transfer/Modify a System**

CA WIC MIS - Transfer	Project Cost
<i>State Costs</i>	
Staff	\$8,611,487
Travel	\$415,330
Miscellaneous	\$122,500
Indirect	\$455,466
<i>Infrastructure</i>	
Processors	\$5,330,809
Software licenses	\$1,716,000
Telecommunications	\$0 <sup>36</sup>

<sup>36</sup> California is currently in the process of a telecom upgrade that is anticipated to be complete before implementation of the new MIS. This upgrade is in its infancy stage; therefore, costs cannot be approximated relating to the new MIS during the development of this document. Additionally, the initial costs of the project will be incurred under a separate funding source.

CA WIC MIS - Transfer	Project Cost
Clinic	\$4,209,209
Indirect	\$562,801
Contracted Costs	
SME/RFP Development	\$250,000
QA Contractor	\$500,000
DDI Contractor	\$5,663,625
IV&V Contractor	\$530,000
Indirect	\$347,181
<b>Total Cost</b>	<b>\$28,714,408</b>

### 12.8 Summary of Cost Analysis

As demonstrated by the Cost Benefit Analysis, the **Transfer/Modify a System** alternative offers the shortest time and lowest cost, followed by the **Maintain the Status Quo** alternative, which is a solution that should be considered only as a short-term fix.

## 13 Maintenance

CA WIC has not yet determined how it will maintain the new system. As an industry standard, CA WIC will contract for a minimum of one (1) year after successful implementation of the new system, which will be considered the warranty period. CA WIC may choose to establish a Service Level Agreement and outsource the maintenance and operations to a vendor. Another option would be for a combination of in-house and outsourced support. This option would allow California to maintain services such as help desk and State technical support while placing the burden of modification and development activities on a vendor. This would transfer the requirement of ensuring that staff are trained and possess certifications to the vendor instead of the State of California. Finally, CA WIC may choose to outsource all support of the system, allowing vendors with specific experience with modern WIC systems to compete to provide a determined service level at a competitive price. Which approach CA WIC chooses to take will have to continue to be analyzed as California continues through the planning phase.

Technological advances and changes in the business requirements of agencies will need periodic revisions to policies, standards, and guidelines. The Department of Information Services is responsible for routine maintenance of these to keep them current. Major policy changes will require appropriate approvals.

CA WIC understands that CDPH standards are subject to change and will respond to these changes as appropriate.

## **Appendix A**

### **Business Capacity Study**

# California WIC Business Capacity Planning Study

*Version 1.9*

*June 21, 2012*

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Draft	4/27/2011	MAXIMUS WIC Team	Draft Submitted for State PM Review
Draft	5/9/2011	MAXIMUS WIC Team	Draft Submitted for State Staff Review
Draft	5/13/2011	CA WIC	Agency revised draft
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Draft	8/15/2011	CA WIC	WIC Director edits incorporated
Final	10/2011	CA WIC	Final review and edits, Document finalized for submission to the USDA
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# 1 Executive Summary

## 1.1 Background

The California Department of Public Health (CDPH) Women, Infants, and Children (WIC) Supplemental Nutrition Program has begun to plan the replacement of its Management Information System (MIS), referred to as the Integrated Statewide Information System (ISIS). California WIC (CA WIC) implemented ISIS in 1996 in coordination with CDPH Information Technology staff. ISIS is used by state and local agency staff to administer the United States Department of Agriculture (USDA) WIC Program. CA WIC also administers two additional USDA grant programs, the WIC Farmers' Market Nutrition Program (FMNP) and the Breastfeeding Peer Counselor Program (BFPC). The continued administration of the WIC FMNP and BFPC programs will need to be considered in a replacement system.

Below are descriptions of the three grant programs administered by the CA WIC Division:

- **WIC:** The WIC program, established in 1974 in California, provides nutrition education, breastfeeding support, referrals to other programs, and supplemental foods for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.
- **FMNP:** Congress established the FMNP in 1992 to provide fresh, unprepared, locally grown fruits and vegetables to WIC participants, and to expand the awareness, use of, and sales at farmers' markets.
- **BFPC:** Annual USDA grant funding has encouraged WIC's investment in breastfeeding promotion and support since 1989. Since 1995, additional distinct grant funding was added to formalize the program. Since 2004, the CA WIC Program received \$2 million for the implementation of the Breastfeeding Peer Counseling Program using the "Loving Support through Peer Counseling" model. In 2011, the grant funding increased to \$10.5 million dollars per year, which supports program operation at 50 local agencies.

## 1.2 *Purpose of the Business Capacity Planning Study*

The Business Capacity Planning Study provides an assessment of the current capacity and capabilities to support and implement a “new MIS.”<sup>1</sup> A new MIS application should meet all of the functional requirements of the stakeholders and must satisfy the infrastructure and security requirements mandated by the State of California to be considered successful. At minimum, any viable MIS must support the number of active participants, the volume of on-line transactions, and the data storage requirements of the CA WIC program. Additionally, the successful implementation and use of the new MIS is dependent on the operational support capacity and the capabilities of available support personnel. Comparisons to known WIC MIS systems, those both in development and in use, serve as a critical gauge of MIS capabilities and are needed for the project to adequately define the capacity and capabilities desired by CA WIC. While CA WIC has not selected a new MIS as of the creation of this document; the Michigan WIC system (MI-WIC) was used as a reference point for this capacity planning study as a comparable example of a web-based, Electronic Benefits Transfer (EBT) ready, WIC MIS system currently in use.

## 1.3 *Methodology*

The current ISIS system environment, support environment, system architecture, system processing, performance, size, and capabilities were documented as a baseline. The ISIS environment contains several separate systems: ISIS (On-line and Batch), the WIC Information eXchange (WIX), and Vendor<sup>2</sup> WIC Information eXchange (VWIX). ISIS application architectures, technical environments, transaction volume capabilities, concurrent users, response time, and batch performance statistics were reviewed. Technical, infrastructure, and support staff for ISIS, WIX, and VWIX were interviewed and provided a technical perspective of the entire system. Solicited staff included database administrators (DBA's), developers, testers, infrastructure and network technicians, and help desk personnel.

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<sup>1</sup> “New” refers to the system that CA WIC will ultimately choose to replace its current MIS system. The new system could be custom built, an update of the current system, a transfer system, or any additional options CA WIC considers.

<sup>2</sup> CA WIC refers to grocers and others that collect WIC food benefits in exchange for food as Vendors.

### 1.3.1 EBT Capacity

While not a focus of establishing current business capacity of the WIC system, modifying the current ISIS for EBT was discussed during the interview sessions. State of California CDPH IT staff responsible for maintaining the system believe it would be possible to modify the current system to become 100% EBT ready. EBT functionality is required for a new MIS and a separate effort will focus on converting the method of benefit provision from paper checks , or food instruments (FIs) to EBT. At this time, it is unknown whether or not implementing a new MIS and EBT will simultaneously or separately. The MIS replacement and EBT planning project leads are working closely together to ensure the success of both projects.

### 1.4 *Executive Summary*

A new MIS must be able to support the current and future on-line transaction processing and data storage requirements of the CA WIC program. The existing CA WIC system, ISIS, supports the United States' largest WIC program, as measured by the number of participants, system users, and FIs generated. The system provides sub-second response times, a batch-processing window of less than three hours, and rarely experiences system errors of great consequence.

ISIS was created with mainframe operating systems, the COBOL programming language, job control language (JCL), and numerous batch processes.

At a minimum, a new MIS must support an equal number of participants, system users, and FI issuance as is now required for the CA WIC program, as well as provide for future expansion. Any new MIS must be proven with performance testing and simulation tools, to be scalable to support the CA WIC workload volumes. Since no new MIS has been selected at this time, the MI-WIC system was reviewed as a prototype example of a possible replacement MIS for the CA WIC program. The MI-WIC system, developed and operated in the state of Michigan, supports approximately 230,000 participants, 1,000 system users, and issues 1,250,000 FIs each month. Based on these numbers, the MI-WIC system represents only 15% of the capacity needed by CA WIC. Presumably, the MI-WIC system would be viable in terms of capacity; however, as with any candidate system, verification testing using production data loads must be performed.

## 2 CA WIC MIS Overview

ISIS is the CA WIC MIS and is the core system that is augmented by two auxiliary systems and numerous stand-alone supplemental technical tools. Today's CA WIC MIS is comprised of the following:

- ISIS (On-line and Batch)

### Auxiliary Systems

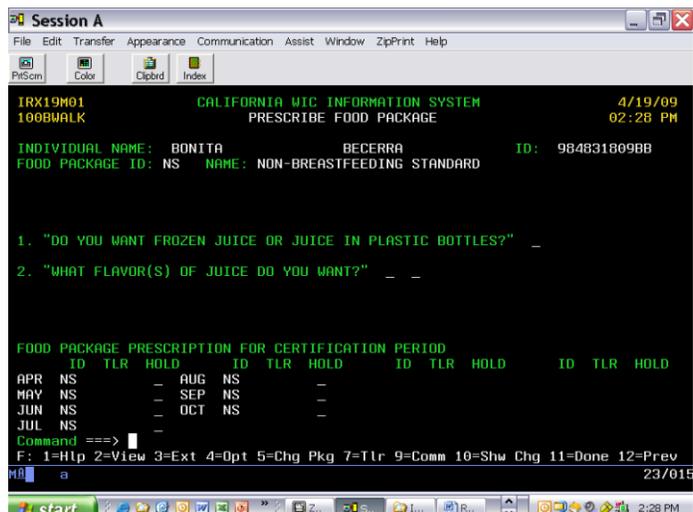
- WIX
- VWIX

### Supplemental Technical Tools

- KATE system
- IBM DB2 Query Management Facility (QMF)
- Microsoft (MS) Excel Spreadsheets and Microsoft Access Databases
- WICWorks Website
- Vendor and Participant Case Management Sharepoint sites

*For additional detail on the components of the WIC information system(s), see A, Appendix: System Summary Table, page 22.*

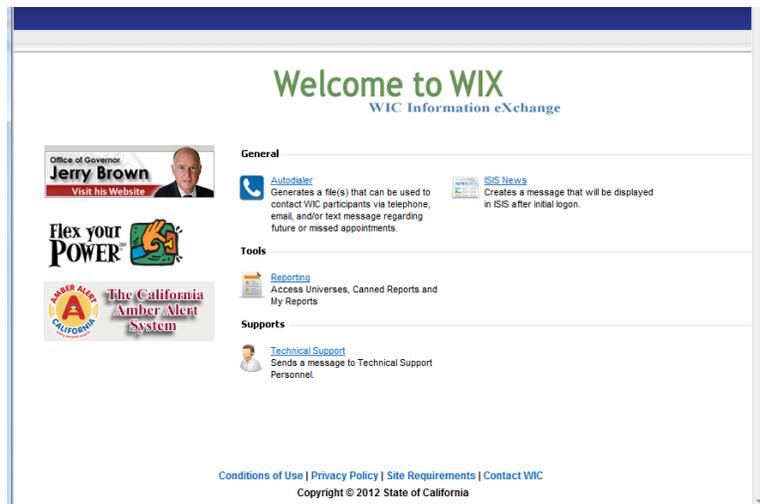
Implemented in 1996, ISIS supports approximately 5,000 CDPH WIC Division and local agency users and serves approximately 1.5 million participants each month<sup>3</sup> and issues approximately 5 million FIs per month. ISIS on-line processing is a mainframe-based transactional “green screen” application developed and maintained using IBM’s 4<sup>th</sup> Generation Language (4GL) development tool, VisualAge Generator, that generates CICS COBOL. ISIS batch processing is also written in COBOL and is used to perform nightly, weekend, and end of month processing. Both on-line and batch processes access data stored in the IBM DB2 Relational Data



<sup>3</sup> Rounded up total as of June 2011.

Base Management System (RDBMS) on the IBM mainframe.

Reporting is provided to state WIC and local agency staff through the WIX system which utilizes web services, Business Objects and .NET applications. Business Objects (BO) provides canned reports as well as ad hoc reporting capabilities. The reporting databases are provided by IBM DB2 Universal Database (UDB) located on servers utilizing IBM's UNIX operating system, AIX and the mainframe. Data is extracted from the ISIS transactional DB2 database and transferred to the reporting DB2 subsystem. The data available for reporting is provided via seven (7) BO Universes. BO Universes provide user friendly names for database columns and controls access to the data tables. The BO Universes also enable the end-users to create reports without significant Structured Query Language (SQL) knowledge by automatically performing table joins and handling other background tasks. The data accessible for reporting via WIX is only a subset of the full data contained in ISIS .



VWIX is provided for vendors seeking reimbursement for accepting CA WIC FIs. Vendors submit serial numbers of redeemed FIs to CA WIC using either the web interface, file transfer protocol (FTP), or by dialing into the “KATE<sup>4</sup>” phone system and entering the numbers using the telephone touchpad. VWIX was developed using Microsoft’s ASP.NET platform and is written in Visual Basic .Net (VB.Net) programming language. The VWIX application operates on a series of web, FTP, application, and domain controller servers. It is located at the State Data Center (OTech). The FTP servers are physical servers, but all other servers are virtual servers. Approximately 320,000 FI serial numbers are processed daily.



<sup>4</sup> KATE is supported by a CA WIC local agency, Public Health Foundation Enterprises (PHFE) WIC Program. Telephone reporting is available in lieu of submission on VWIX.

### **3 CA WIC MIS Strengths and Weaknesses**

The technical strengths and weaknesses of the CA WIC MIS, primarily the ISIS system, were documented as the baseline analysis. The strengths and weaknesses were identified from reviewing technical documentation and interviews conducted with management and technical support staff.

#### **3.1 *Strengths of the Current System(s)***

The system(s) are stable and support a large user population with very little downtime.

##### **3.1.1 ISIS**

Technical, infrastructure, and support personnel reported that the on-line, batch jobs, the interface<sup>5</sup>, and database maintenance functions rarely produced errors. On-line response times are sub-second while supporting an average of 1,700 concurrent users, processing approximately 2.9 million transactions a day, and producing approximately 5 million FIs each month. Batch processes complete well within the time window allocated, normally completing in less than three hours.

The ISIS system capacity is significant, with the production data tables containing over 2.5 billion records. The system is able to continue with current operations and performance levels even with a significant increase in participants and users. Data storage capacity of the mainframe and corresponding WIX is substantial at 365 gigabytes of transactional mainframe storage space and 385 gigabytes of reporting mainframe storage space. The ISIS application can operate at all connectivity levels including dial-up connections.

##### **3.1.2 WIX**

WIX supports approximately 400 active users and provides efficient access to standardized, on-demand reports and a limited ad hoc reporting environment with access to de-normalized, summary, and point-in-time data via the federated database.

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<sup>5</sup> ISIS provides one interface connection to the state Medicaid program. The program in California is called Medi-Cal and its information system is called MEDS.

### 3.1.3 VWIX

Each day, VWIX supports the transmission of vendor files with approximately 320,000 serial numbers between CDPH and the third party processor, the State Treasurer's Office (STO). Using the previously submitted serial numbers, the STO processes on average 300,000 FIs each business day. Vendors have commented that online serial number transmission is nearly real-time as the transmitted files are processed and acknowledged within seconds. The VWIX web application also provides vendors downloadable information such as updated maximum allowable FI reimbursement rates. VWIX has been successfully stress tested and is scalable, capable of 200 concurrent file submissions containing 30,000 serial numbers accepted and processed simultaneously.

### 3.1.4 Strengths Summarized

- System(s) are stable and function well together
  - On-line and batch processing errors are rare and response time is sub second
  - Batch processing completes well within the allocated window, normally less than three hours
  - WIX provides efficient access to summary data in standardized reports and through limited ad hoc reporting
  - Bandwidth requirements are minimal, the system can operate sufficiently via a dial-up connection
- System(s) could support future growth
  - Mainframe capacity is available to support and increase in both users and participants
  - Mainframe and WIX data storage space is available for growth

### 3.2 *Weaknesses of the Current System(s)*

The weaknesses of the system mentioned here are those that directly impact the business capacity of the system(s). The MIS replacement project seeks a solution that will seek to remedy the current limitations of the CA WIC system.

#### 3.2.1 Limited Access to Data

WIX reporting consists of canned reports as well as seven (7) universes which currently contain two (2) to 13 months of data. In addition, the seven (7)

Business Objects universes do not provide WIC local agencies or State WIC with all ISIS data elements such as lab holds or vendor data,

State staff have access to tools such as Query Management Facility (QMF) which provides total access to WIC data given the permissions and knowledge of the tool and SQL syntax.

The system complexity resulting from the large number of data tables and their organization makes it difficult for program staff to access data easily. CDPH staff receive over 80 requests for ad hoc reports each month. Responding to these requests consumes significant quantities of staff time and reduces their ability to address other priorities. ISIS data is separated into hundreds of tables, necessitating a high degree of system knowledge to correctly formulate a query that accesses the appropriate data required to satisfy a request accurately. One cannot rely on the database column name alone; knowledge of how the data in that column is commonly used is necessary.

The database structure and its organization were designed for fast response time and is a result of database normalization practices. While these goals have been achieved, it has resulted in a complex environment for end-users to navigate when creating reports.

In response to new reporting requirements, a large local WIC agency responded to ISIS's limitations in generating reports recently by piloted their own new reporting environment utilizing Microsoft's SQL Server Reporting Services (SSRS). In order for SSRS to be available to all local agencies, the State WIC office would have to propagate all ISIS data to the SSRS database located at the local WIC agency (in Los Angeles) and provide additional funding for maintenance of the system. (*see , page **Error! Bookmark not defined.***)

### **3.2.2 Records That Have Been Batched Out**

The USDA recently noted the inability to access participant records 90 days after the certification end date via online ISIS Access to these records require an ad hoc report query in order to retrieve specific participant data. There is no functionality to select records that have been batched out for recertification.

### **3.2.3 Adaptation Challenges**

ISIS functions in a linear fashion with multiple paths available to perform a single function. This requires multiple screen modifications in order to accommodate a single change. For example, a request to make a change to a participant

enrollment screen results in changes being made to numerous screens, since there are separate enrollment screens for each category of participant. These multiple and independent paths exist for many of the user interfaces and require significant testing and code synchronization to ensure that each possible path or combination of conditional alternatives have been modified correctly. Substantial analysis and system knowledge is required to avoid overlooking possible scenarios and avoid introduced problems. There are five (5) separate technical environments (or regions) for ISIS, VWIX, and the WIX: Development, System Test, Acceptance Test, Production, and Training regions which exist on the IBM mainframe, the IBM UNIX servers, and the Windows servers that comprise the environments. While maintenance of multiple regions increases the cost to maintain the system, the benefit includes a higher quality product for system enhancements and changes.

While it is possible to web enable ISIS with a web GUI, it is likely not feasible due to the impact to business processes and the high cost of the change. Potential improvements related to web enablement such as streamlining business processes through user interface reengineering and improved application deployment are not feasible without significant design modification and development effort.

ISIS was developed using COBOL, JCL, and other mainframe technologies, representing an era of application development that is several decades old. While there are many applications in use worldwide that continue to use these toolsets, most of these are large existing applications, not new development. Recent surveys at Dice.com and Computerworld indicate that the most popular languages for new development are C#, C, C++, Java, and VB.net.

At this time, ISIS is not 100% EBT ready. CA WIC must adopt EBT as the method of benefit issuance by the year 2020 as mandated by federal legislation. In addition to technical considerations, implementing EBT will require significant changes to the current business process model, which is designed around individual participants and rolling-month benefit issuance. EBT necessitates aggregated household benefits issuance with both rolling and fixed month benefit issuance options, as well as benefit proration, features that are not currently available in ISIS.

### **3.2.4 Ongoing Maintenance and Operations**

ISIS modifications require developers skilled in IBM Visual Age Generator DB2, and similar mainframe technologies. As such, CA WIC is dependent upon highly qualified technical staff that support the WIC MIS. Personnel with one or several

of the required skill sets and accreditations are not easily obtained.in California has faced the same difficulties as many government entities over the last few years thereby resulting in recruitment challenges. The State process for contracting with third party technical support can be costly in time and effort as contract approval is always uncertain and processing time can be lengthy.

### **3.2.5 Weaknesses Summarized**

- Limited access to data
  - Limited reporting environment for local agencies and State WIC.
  - Local agency staff are unable to select participant record data after the participant has not been certified over 90 days.
- Adaptation Challenges
  - System will require significant resource dedication to modify for EBT-readiness.
  - CA WIC is dependent upon highly qualified technical staff that support the WIC MIS.
  - Complexity of WIC business processes, regulations, and information systems require an extensive initial learning period for new employees.
- ISIS is not currently web-enabled
- Wide variety of toolsets
  - Recruiting staff that possess all the varied knowledge and skills in the toolset (e.g. Attachmate, Toad, Data Studio, QMF, DB2 Connect) to maintain ISIS.

## 4 Current Capacity Performance

The CA WIC MIS system(s) currently support:

- Approximately 1.5 million participants each month
- Vendor serial number submission: approximately 2,500 VWIX website users, 300 FTP users, and 300 KATE users
- 84 local agencies, which operate at more than 650 sites
- Approximately 5,000 ISIS users, an average of more than 1,700 concurrent users
- Approximately 5 million FIs issued each month

At minimum, any new system must support this volume or be proven to be scalable to support this volume. It is recommended that a new MIS be proven to support, or be scalable to support, a three percent (3%) year-over-year increase in volume.

ISIS transaction volumes, storage requirements, and performance statistics are difficult to use for comparisons. Each MIS system may perform the same business processes, but the processes may be technically performed differently; nonetheless, the following statistics are provided for reference:

ISIS On-line processes:

- Approximately 2.9 million online CICS transactions per day
- Average sub-second response time (.025 second)

The ISIS production transactional mainframe DB2 database consists of:

- 195 tables
- 1.36 billion records
- 365 gigabytes of storage space
- Averages more than 78 million DB2 database calls per day

The ISIS production reporting mainframe DB2 and AIX UDB databases consists of:

- 500 tables
- 1.44 billion records
- 265 gigabytes of storage space
- 13 months of data refreshed at the end of each month

The data center hub provides T1 and T3 connections to the ISIS application, while remote Local Agency sites connect to the hub through a VPN. Cable

modem or DSL provides VPN access; however, as a backup ISIS can be accessed via a dial-up connection.

ISIS, is available week days from 7am until 7pm and Saturdays from 8am until 12pm. VWIX and WIX are available nearly 24 hours a day and seven days a week, with the exception of the following scheduled maintenance windows:

- ISIS is not available on Sundays
- Preventive maintenance, affecting the Databases: Every second and fourth Monday from 12:01am to 2am
- Network maintenance, which may affect VWIX: Every Sunday from 4am to 7am
- Window Servers maintenance, which may affect VWIX: Every other Friday 6pm to 1am Sunday. Hosting contract requires that at least one of two production servers must be available at all times, 24 hours a day and seven days a week.

## 5 New MIS General Overview

At this time, CA WIC has not selected a replacement system; nonetheless, the Michigan WIC system (MI-WIC) was used as a reference point for this capacity planning study as an example of a web-based, 100% EBT-ready, WIC MIS.

### 5.1 *Example MI-WIC Technical Architecture*

MI-WIC is a web-based application developed using Microsoft Visual Studio 2010, third-party components (Infragistics Net Advantage 2009), Microsoft .NET framework 4.1, and an Oracle database. The application is accessed through the Michigan State Portal website, residing behind a firewall and a reverse-proxy server that provides additional security features. Three load-balanced application servers and two database servers can be scaled up to consist of thirty-two servers. A Secure Sockets Layer is used to shelter data in transit. Bandwidth is provided by T1, cable modem, and DSL. MI-WIC includes EBT benefit issuance functionality.

### 5.2 *Example MI-WIC Current Capacity*

MI-WIC currently supports:

- Approximately 230,000 monthly participants residing in 83 counties
- Approximately 2,000 vendor users
- 49 local agencies operating over 248 sites
- Approximately 1,000 system users
- An average of more than 800 concurrent system users
- Approximately 1,250,000 FIs issued, total value of 15 million dollars, each month

The Federal Enterprise Architecture (FEA)<sup>6</sup> requirements stipulate that new systems must scale, in other words be capable of supporting increasing capacity without the need to re-architect the MIS. Modern load and volume testing software makes it viable to design scalable applications, provides accurate information on system abilities, and identify the volume threshold at which an

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<sup>6</sup> FEA Guidelines - Federal Enterprise Architecture (FEA) is the Enterprise Architecture of the Federal Government. Its intent is to provide a common methodology for information technology (IT) acquisition, use, and disposal in the Federal government. For more details, go to [http://en.wikipedia.org/wiki/Federal\\_Enterprise\\_Architecture](http://en.wikipedia.org/wiki/Federal_Enterprise_Architecture)

application will require the addition of hardware (servers). CA WIC system's current capacity is six times more than the current capacity of MI-WIC.

MI-WIC On-line processes:

- Approximately 1.1 million on-line transactions per day
- Averages more than 14 million database calls per day
- Average response time is one second or less

The MI-WIC databases require approximately:

- 130 gigabytes to house the production database
- 70 gigabytes to house another database to provide capacity for staging, archives, and other needs.

Prior to considering an MIS as a viable candidate for transfer, CA WIC must verify that the system will support the participant and on-line transaction volume required by CA WIC. A new MIS may meet all of the functional requirements of the stakeholders; however, for success, the system must also satisfy the infrastructure and security standards mandated by the State of California. Volume/load tests must be performed to simulate multiple users accessing the application concurrently at the anticipated volumes established by the CA WIC program. These tests are needed to determine if a new MIS will provide adequate capacity and response times under normal transaction volumes as well as spike volumes. Additionally, testing is needed to determine a capacity threshold for future upgrades.

The limiting factor in a web application is often the bandwidth between connections. MI-WIC was built using rich controls provided as part of Microsoft's Visual Studio, the Integrated Development Environment (IDE), and by a third-party control provider, Infragistics. Certain Infragistics controls require very large view states, significantly increasing the bandwidth requirements of the pages on which they reside. Bandwidth requirement metrics must be gathered based on real-world scenarios of application usage to determine the number of "typical" system users per type of connection: T1/T3, cable modem, DSL, etc. Providing dial-up access as a primary or backup connection method will not be viable with a new MIS. The importance of testing the bandwidth requirements cannot be overemphasized, especially with a user community that is accustomed to sub-second response times from their current system.

While specific tests must be performed to verify a candidate system's ability to support the on-line volume transaction capacity requirements, storage capacity requirements can be reasonably estimated if a system is currently operational. Production, backup, and operational space requirements will need to be

identified and can be based on information from previous implementations of the same MIS but then magnified to meet CA WIC's anticipated needs. For example, MI-WIC estimated their storage capacity requirements to be approximately 40 GB for the production database. This number was extrapolated using the system's implementation in Maryland and applying the number of participants, number of recurring visits, and the number of scanned documents estimated in Michigan.

## 6 Business Partners Impact

WIC's business partners, the California Technology Agency, OTech, and CDPH ITSD will be affected by the selection of a new MIS. OTech provides application hosting and security while ITSD provides technical support staff for the application. Depending on the new MIS selected, the impact on each partner will vary. As required, any new MIS will be required to architecturally meet the FEA guidelines for new software systems development. Consequently, the introduction of new hardware, software, and architectures to support the new MIS is certain to result in a different and changed environment.

The VWIX and WIX subsystems represent the closest architecture to what may be available in a new MIS. The architectural components and development software used in a new MIS will dictate the required infrastructure needed to run the application; however, conceptually the following can be expected:

- UNIX or MS Server database hosting environment
- High volume n-Tiered web hosting environment

The new MIS database would require:

- High Volume, High Availability, server based OLTP Database (DB2, Oracle, MS SQL, or other) in multi-server, load-balanced, scalable architecture

The new MIS development architectures and development platforms would be:

- N-Tier architected applications with multiple load-balanced web and application servers
- Written in a modern and commonly available language, such as Microsoft's VB or C#, or Java
- Object-oriented languages and service-oriented architectures

While it is not known at this time what the specific replacement MIS architecture, development platform, and programming languages will be, it is known that the systems being developed by other WIC programs are not mainframe based systems.

Consequently, the following items and risks must be considered:

- Ability of technical support staff to support the new application infrastructure
- Ability of DBA staff to support a new database
- Ability of the development staff to transition to an object-oriented programming language

- Ability of the development staff to transition to a service-oriented architecture
- Ability of the development staff to transition to a new development platform
- Ability of the development staff to transition to a new reporting and/or data warehouse platform
- Risk of losing WIC application domain knowledge as a byproduct of a change in the system affecting staff retention

Addressing the needs of CA WIC in the anticipated areas cited above is important to successfully implementing any new MIS. It is certain that the new MIS will necessitate ongoing support and the need for enhancements to grow along with programmatic changes and technological advances. To enable successful support of the new MIS, agreements should be created only after careful assessment of support needs in the number of staff positions, types of state service classifications, and skill sets, as well as a review of the distribution of maintenance and enhancement responsibilities.

In the transition period, knowledge transfer and formalized training presents challenges, which are heightened when applied to hosting and supporting a new mission critical application and executing the migration between considerably different environments. This conversion to a newer system will necessitate a significant investment in transitioning the knowledge and skills of existing staff.

## **7 State Treasurer's Office Impact**

The STO has been CA WIC's third-party processor for FIs. During implementation of a new MIS, the current third-party processor will need to be involved to discuss processes and technological capabilities for data exchange. It is not known at this time whether a new MIS system will continue to print FIs or if it will be simultaneously implemented with integrated EBT functionality. It is also unknown whether or not EBT will be implemented first with ISIS, and then subsequently enabled in the replacement MIS. In any situation, it can be expected that the processes for benefit redemption, as well as the associated tasks and responsibilities, will be affected and will require collaboration between the STO, WIC, ITSD, and OTech.

## 8 Summary

Following is a summary of the capacity study findings and requirements:

- ISIS processes approximately 2.9 million CICS transactions and 63 million database call per day
- New MIS system and network must support at least 5,000 users with 1,700 concurrent users
- New MIS must support both the issuance of five FIs (if applicable) each month and the issuance of benefits in an EBT environment
- New MIS must support Transport Layer Security (TLS) or Secure Sockets Layer encryption (SSL) for electronic transmissions of data with 128 bit key or higher encryption
- New MIS must support 128 bit key or higher encryption for classified information storage
- New MIS must provide a 24x7x365 environment to support vendors and participants' public-facing processes
- UNIX or MS Server database hosting environment
- High volume n-Tiered web hosting environment
- High Volume, High Availability, server based OLTP Database (DB2, Oracle, MS SQL, or other) in multi-server, load-balanced, scalable architecture
- N-Tier architected applications with multiple load-balanced web and application servers
- Written in a commonly available and modern language, such as Microsoft's VB.NET, ASP.NET, or C#, or Java
- Service-oriented architectures

**A. Appendix: System Summary Table**

CA WIC Management Information System, Auxiliary systems, and Supplemental Tools

SYSTEM SUMMARY TABLE			
SYSTEM	DESCRIPTION	PROCESSES SUPPORTED	USERS/ CUSTOMERS, CAPACITY
<b>ISIS</b>	ISIS provides the primary front-end interface for local agencies to provide direct services to participants.	<ul style="list-style-type: none"> <li>• Certification</li> <li>• Nutrition Education, Health Surveillance, Referrals</li> <li>• Food Benefit Issuance</li> <li>• Scheduling</li> <li>• System Administration</li> </ul>	<ul style="list-style-type: none"> <li>• There are approximately 5,000 users</li> <li>• 194 State office users</li> <li>• An average of 1,700 concurrent users</li> <li>• 1.5 million active participant records per month</li> <li>• Issues 5 million food instruments each month</li> <li>• 2.9 million online transactions per day</li> <li>• Batch processing in less than 3 hours</li> <li>• 0.025 second response time</li> <li>• 1.36 billion records</li> <li>• 310 gigabytes of storage space</li> <li>• Averages more than 63+ million DB2 database calls per day</li> </ul>

SYSTEM SUMMARY TABLE			
SYSTEM	DESCRIPTION	PROCESSES SUPPORTED	USERS/ CUSTOMERS, CAPACITY
<b>VWIX</b>	VWIX is a public facing interface website that allows grocers (referred to as vendors) to report serial numbers to redeem FIs.	<ul style="list-style-type: none"> <li>• Reporting of serial numbers by website data entry</li> <li>• Reporting of serial numbers by File Transfer Protocol (FTP)</li> </ul>	<ul style="list-style-type: none"> <li>• 2,500 web users; an average of 20 concurrent web users. Up to eight of these may be State WIC Help Desk personnel assisting other users</li> <li>• 300 FTP users</li> <li>• Process 320,000 serial numbers a day</li> <li>• Successful stress test: Simultaneous acceptance of 200 file submissions containing 30,000 serial numbers</li> </ul>
<b>KATE</b>	Telephone reporting is available in lieu of submission on VWIX.	<ul style="list-style-type: none"> <li>• Reporting of serial numbers by telephone (KATE).</li> </ul>	<ul style="list-style-type: none"> <li>• 300 users (over the last six months)</li> <li>• 300 vendor telephone users (entering 160,000 checks each month)</li> </ul>
<b>WIX</b>	WIX provides reporting capabilities to State and local agency users.	<ul style="list-style-type: none"> <li>• 38 Standard reports</li> <li>• Ad hoc reporting</li> </ul>	<ul style="list-style-type: none"> <li>• 400 local WIC agency users</li> <li>• 50 State users</li> <li>• An average of 50 concurrent users</li> <li>•</li> </ul>

SYSTEM SUMMARY TABLE			
SYSTEM	DESCRIPTION	PROCESSES SUPPORTED	USERS/ CUSTOMERS, CAPACITY
<b>QMF</b>	SQL Software used to extract data from the ISIS database(s) to supplement the reporting environment, the WIX.	<ul style="list-style-type: none"> <li>• Ad hoc reporting</li> </ul>	<ul style="list-style-type: none"> <li>• 20 Information Technology Services Division (ITSD) staff</li> <li>• 50 State office staff</li> <li>•</li> </ul>
<b>Excel Spreadsheets and Access Databases</b>	There are approximately 800 Microsoft (MS) Excel spreadsheets and MS Access databases that support WIC business processes	<ul style="list-style-type: none"> <li>• Vendor management</li> <li>• Processing Rejected FIs</li> <li>• Inventory</li> <li>• Data modeling and trend analysis</li> <li>• Participation monitoring</li> <li>• FI Redemption Analysis</li> <li>• Local agency &amp; vendor training</li> <li>• Contract monitoring</li> </ul>	<ul style="list-style-type: none"> <li>• State WIC office users</li> <li>• Local Agency users</li> </ul>

SYSTEM SUMMARY TABLE			
SYSTEM	DESCRIPTION	PROCESSES SUPPORTED	USERS/ CUSTOMERS, CAPACITY
<b>WIC Works Website</b>	The WIC website ( <a href="http://www.wicworks.ca.gov">www.wicworks.ca.gov</a> ) is a public-facing website that presents information about WIC and its services.	<ul style="list-style-type: none"> <li>• Approved Product List, Food List Database (a group of Adobe documents organized by Food group)</li> <li>• Vendor Newsletters/Alerts</li> <li>• VWIX Training Information</li> <li>• VWIX Downtime Schedule</li> <li>• Online Food Item submission forms (by Food group)</li> <li>• Education Materials, Ordering Forms (for use by Local agencies)</li> <li>• Systems User guides</li> <li>• Job Aids</li> <li>• Find a local WIC agency function</li> </ul>	<ul style="list-style-type: none"> <li>• Local agencies</li> <li>• Vendors</li> <li>• Participants and potential participants</li> <li>• Health Care Professionals</li> </ul>

## **B. Appendix: State Technical Assistance Review (STAR)**

Annual Program Assessment conducted by the USDA.

### *I. Record Retrieval*

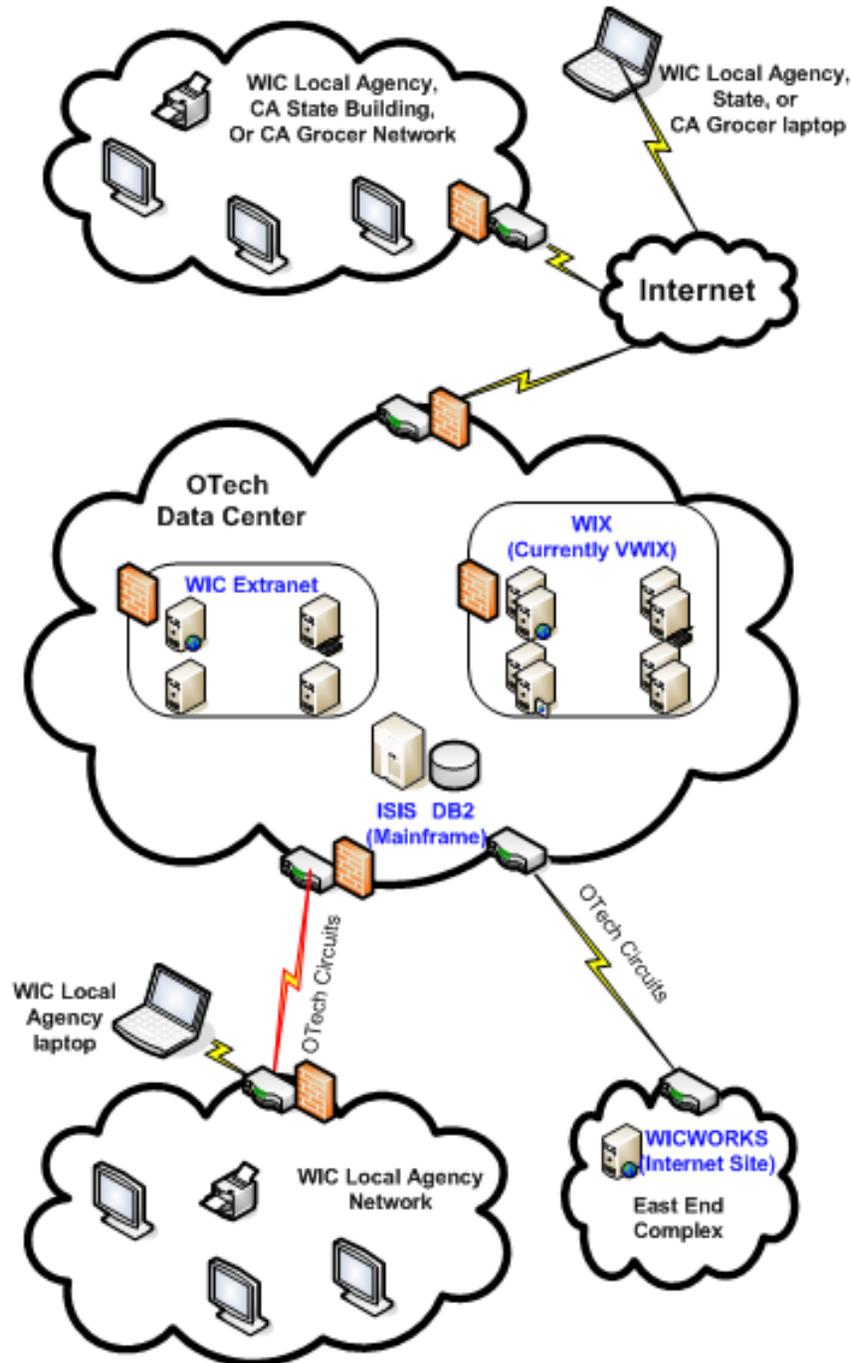
Federal Fiscal Year 2009, Observation: The USDA noted the inability to access participant records 90 days after the certification end date via online ISIS. Access to these records require an ad hoc report query in order to retrieve specific participant data. There is no functionality to select records that have been batched out for recertification.

California State WIC Program's Response: "We agree that ISIS does not provide us the ability to retrieve data on inactive participants longer than 90 days and that having the ability to do is desirable. This recommendation for improvement will be considered in the planning for an ISIS replacement."

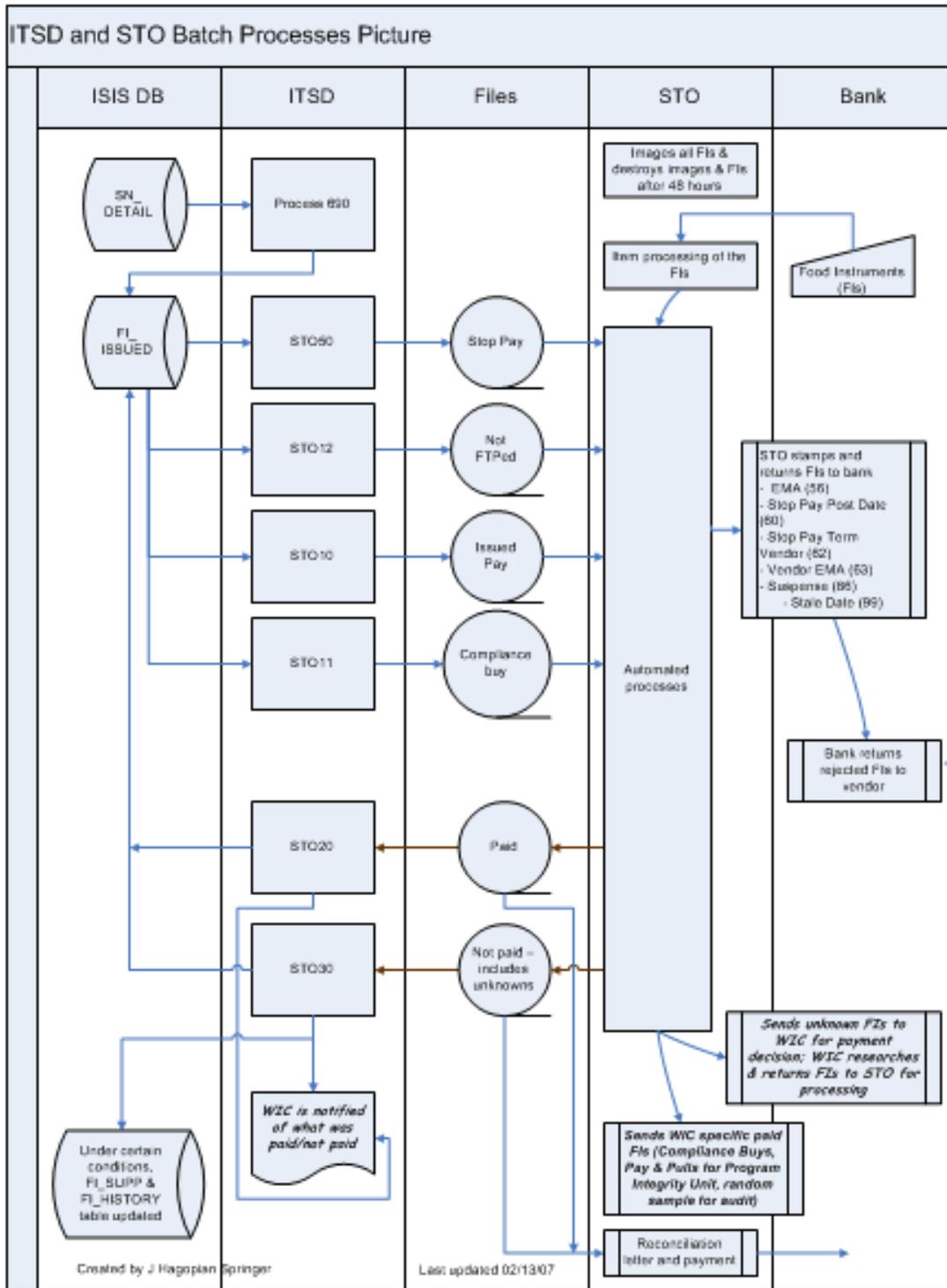
### C. Appendix: System(s) Documentation

The following are the available current system(s) documentations. Included here are the diagrams provided and then a listing of all other documentation.

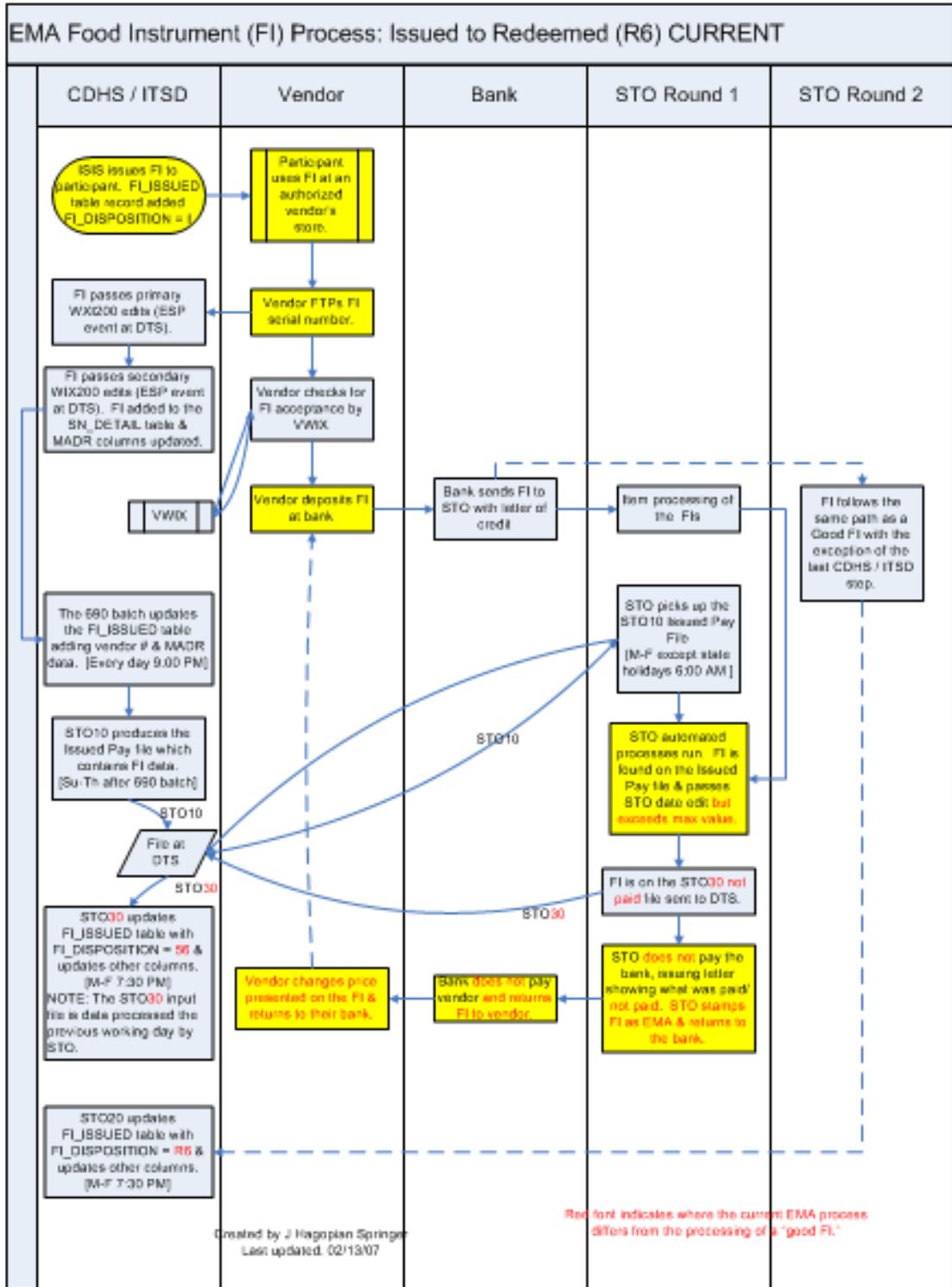
*Figure 1: System(s)*



*Figure 2: ISIS – STO FI Batch Processes (file dated 2007-02-13)*



**Figure 3: ISIS – STO: Issued to Redeemed FI Process**



*Figure 4: Extranet Architecture – Production (2010-09-07)*

*Figure 5: Extranet Architecture – Development (2010-09-07)*

*Figure 6: Extranet Architecture – System Test & Acceptance Test (2010-09-07)*

*Figure 7: Extranet Development Logical Sanitized Network Architecture Flow Diagram (dated 2010/8/5)*

Sample listing of current system(s) documentation		
System	Title	Type of Document
ISIS	ISIS Production DB2 Database	Entity Relationship Diagram (ERD)
ISIS	ISIS Archive Database	ERD
ISIS	DB2 Health Check Process	Descriptive Text

ISIS/VWIX	Nightly STO Redemption Process	Descriptive Text
VWIX	VWIX	ERD
VWIX	VWIX Restart Process	Flow Chart
VWIX	VWIX Health Checks	Flow Chart
VWIX	File and SAN Drive Health Check	Descriptive Text
VWIX2	FTPS Login Health Check	Descriptive Text
Extranet	GLINDA Universe	ERD (Data Tables)
Supplemental Technical Tool	Breastfeeding Peer Counselor Database	ERD
	Service Restart Health Check	Descriptive Text
	ESP Jobs <ul style="list-style-type: none"> <li>• Monday – Thursday</li> <li>• Production</li> <li>• Acceptance</li> <li>• System Test</li> </ul>	Table

## **Appendix B**

### **Business Process Calculation**

## **Business Process Calculation**

Interviews with CDPH staff provided information on what California business processes are conducted and to what extent each process utilizes the system(s). Major business processes were identified and ranked according to level of support the current system provides to each specific business process. Ultimately each process was given a score of one to four.

Each process was rated twice, developing rankings from two different areas of investigation. The first ranking determined the support of the current system(s) as compared to the CA WIC functional requirements. The second ranking estimated the capability to use and reuse data in each system environment. Each process is assigned a low and high score for the current system based on survey results. Each of the two rankings used the same set of scores but an assigned number in one category did not affect the determination of it in the other.

- Score of 0: A process that was determined to not be needed in the current or future system or not collecting data is not anticipated to be provided functionality in the proposed solution and therefore not scored.
- Score of 1: These processes are manual efforts requiring a high labor investment; these processes receive little or no support from the current system(s).
- Score of 2: The system provides some level of support however, there are significant limitations to the functionality and changes may be too difficult with the current systems or significant desired functionalities are available in modern systems.
- Score of 3: These are processes that already receive a high level of support from current systems however, the technology is external and the processes and data are disjointed from the main systems, and in terms of data often not reusable.
- Score of 4: Highest ranking possible; these processes are those that already receive a high level of support from the current system(s) and therefore considered adequate.

## **Ratings**

The table below outlines the ranking for each business process as established by the steps previously described.

	<u>Processes</u>			<u>Data</u>		
	Current		Future	Current		Future
	low	high		low	high	
<i>Direct Services</i>	2.1	2.7	3.8	1.9	2.7	3.7
Application & Certification	4	4	4	2	3.5	4
Breastfeeding Support	3	4	4	2	2	4
Food Benefit Issuance	2	4	4	3	4	3
Health Surveillance	2	3	4	2	3	4
Inventory	1	1	4	2	2	4
Nutrition Education	2	2	4	2	4	4
Outreach	1	1	2	0	0	2
Referrals	2	3	4	1	3	4
Scheduling	2	2	4	3	3	4
<i>Finance</i>	1.5	2.3	3.8	1.3	2.1	3.4
Audits	1	1	2	1	1	3
Budgeting, Local Agency	1	1	4	1	1	4
Budgeting, Program	1	1	4	1	1	4
Food Instrument Processing, Fls	4	4	4	3	4	3
Food Instrument Processing, FMNP	1	2	4	1	2	3
Food Instrument Processing, FVVs	2	4	4	2	4	3
Forecasting	1	1	4	0	0	3
Maximum Allowable Departmental Rates (MADR's)	1	4	4	1	4	4
<i>Local Agency Support</i>	1	1.5	3.5	0	1.8	3.5
Caseload Management	1	2	4	0	3	3
Contract Management	1	1	4	0	0	4
FMNP, Adjunct Program Administration	1	2	4	0	2	4
Program Services (technical assistance)	1	1	2	0	2	3
<i>Nutrition Education</i>	1.3	1.6	2.9	0.9	1.3	3.6
BPC Application & Review	1	1	4	1		4
BPC Technical Assistance	1	1	2	1	1	4
Education Development					1	
Food Benefit Administration	1	3	4	2	3	4
Formula Administration	1	3	2	1	3	3
Inventory	1	1	4	1	1	4
Ordering	1	1	1	0	1	3
Outreach	1	1	2	0	1	3

	<u>Processes</u>			<u>Data</u>		
	Current		Future	Current		Future
Surveys	3	3	4	1	1	4
<i>Program Integrity and Policy</i>	1	1.2	3.3	1	1	4
Collections	1	1	4	1	1	4
Compliance Monitoring	1	1	3	1	1	4
Investigations	1	1	4	1	1	4
Monitor Complaints	1	1	4	1	1	4
Program Policies	1	1	2		1	
Routine Monitoring	1	2	3	1	1	4
<i>Reporting</i>	2	4	4	1	4	4
Ad hoc reporting	2	4	4	1	4	4
<i>Technical Support</i>	2.3	3.6	3.3	0	3.6	0
Application Support		4			4	
Communication	2	4	4		4	
Help Desk, First Level Support	2	1	4		1	
Help Desk, Second Level Support	2	4	4		4	
Network & Desktop Support		4			4	
System Account Administration	2	4	4		4	
System Modification	2	4	4		4	
Testing	4	4			4	
<i>Training</i>	1	3	4	1	3	4
Vendor Training		4			4	
Training Communication	1	2	4	1	2	4
<i>Vendor Management</i>	1	1.6	4	0.2	1.2	4
Appeals	1	1	4	0	1	4
Application	1	1	4	0	1	4
Authorization	1	2	4	1	1	4
Communication	1	2	4	0	1	4
Re-Authorization	1	2	4	0	2	4

## Calculations

This table shows the average ranking of each high level process area for the current systems support as compared to the CA WIC functional requirements. Processes that were deemed not applicable were excluded from the final calculation. As a perfect score in each would be a four, the scores were totaled, divided by the number of processes to receive the average rating. As a perfect score of four could be multiplied by 25 to get 100 or show 100% support, the average rating was multiplied by 25 to show the percentage of processes that are supported by the current systems and the proposed solution.

	<b>Proposed Solution</b>	<b>Processes Current Systems</b>	
		<b>Low</b>	<b>High</b>
Direct Services	3.8	2.1	2.7
Finance	3.8	1.5	2.3
Local Agency Support	3.5	1.0	1.5
Nutrition Education	2.9	1.3	1.6
Program Integrity & Policy	3.3	1.0	1.2
Reporting	4.0	2.0	4.0
Technology Support	3.3	2.3	3.6
Training	4.0	1.0	3.0
Vendor Management	4.0	1.0	1.6
<b>Process Average</b>	<b>3.6</b>	<b>1.5</b>	
<b>Average x 25 = %</b>	<b>90.5</b>	<b>36.7</b>	<b>59.7</b>

The calculations for the use and reuse of data were conducted in almost the same way. The exception is that processes were rated on a zero to four scale. In the previous example, the lowest rating was one for manual

	<b>Proposed Solution</b>	<b>Re-useable Data Current Systems</b>	
		<b>Low</b>	<b>High</b>
Direct Services	3.7	1.9	2.7
Finance	3.4	1.3	2.1
Local Agency Support	3.5	0.0	1.8
Nutrition Education	3.6	0.9	1.3
Program Integrity & Policy	4.0	1.0	1.0
Reporting	4.0	1.0	4.0
Technology Support	0	0	3.6
Training	4.0	1.0	3.0
Vendor Management	4.0	0.2	1.2
<b>Process Average</b>	<b>3.4</b>	<b>0.8</b>	<b>2.3</b>
<b>Average x 25 = %</b>	<b>83.8</b>	<b>20.3</b>	<b>57.5</b>

processes, but in these cases some of the data may be manually extracted and reused with effort. Providing a zero rating allows for items where data is not collected at all or is in an not reusable form such as paper surveys. In addition, the functional area of Technology Support was not accounted for as the data would not be anticipated to be collected or reused.

## **Conclusion**

Based on quantifying scores, the existing MIS system meets 36.7% to 59.7% of CA business processes while a new MIS is anticipated to meet up to 90.5% of these processes. The use and reuse of data meets 20.3% to 57.5% of CA needs while a new MIS is anticipated to meet up to 83.8% of these needs.

## **Appendix E**

### **Current System(s) Support of Business Processes**

## **Current System(s) Support of Business Processes**

WIC has nine high-level functional areas that are crucial to the administration of the CA WIC Program. Each area would greatly benefit from a new system. In this attachment, each functional area and its business functions will be described, including work estimates if available, as well as a summary of its use and support by the current system(s). This information was gathered in May through July of 2011 through interviews with staff by work groups.

### **DIRECT SERVICES**

Local agencies provide WIC participants with the core services of program certification, nutrition education, referrals, and food instrument (FI) issuance. Some local agencies also participate in the Breastfeeding Peer Counselor Program and/or the Farmers Market Nutrition Program. Local agency administrative functions include outreach and managing inventory.

WIC Information eXchange (WIX) is primarily used by Local agencies and supplemented through Ad hoc reporting requests. Local agencies are also the primary users of ISIS and WIX conducting most business processes within this system. Additionally, local agencies have created a variety of tools to supplement the functionality of the current system such as scheduling, inventory, surveys, referrals, dual enrollment, growth charts, tracking Local Vendor Liaison, or LVL, activity and outreach. Methods to assist with most processes vary for each local agency, from paper and pen to the most commonly used excel documents or self-created applications. For example, the Breastfeeding Peer Counseling database has been created to satisfy business process requirements to collect additional information to provide case management and reporting for management decisions.

### **Business Processes**

- **Application and Certification:** Process information, in the clinic, to determine if a person is eligible for the WIC program.
- **Scheduling:** Schedule applicants and participants, on the phone and in person, for nutrition education courses, internal referrals, and certification/recertification.
- **Health Surveillance:** Collect data to determine counseling, education, and food benefit plans.
- **Nutrition Education:** Provide mandated education classes to participants. Participants must attend several classes during certification periods to allow for recertification. Recently, some local agencies have made online education available.

- **FI Issuance:** Distribute paper vouchers or Food Instruments (FIs) to participants. FIs are augmented by a Fruit and Vegetable Vouchers (FVVs) with a dollar amount allotment. Additionally, a separate grant allows qualifying families to also receive seasonal vouchers to use at a farmers' market through Farmers' Market Nutrition Program for Women and Children (FMNP) .
- **Referrals:** Provide referrals externally to other social services and health providers and internally to Breastfeeding Peer Counselors (BPCs).
- **Breastfeeding Support:** BPCs conduct education appointments, phone consultation, and other case management activities to support mothers. Counseling is conducted as an internal referral and counseling activity.
- **Inventory:** Document receipt of items in Local Agency Inventory System (LAIS).  
**Outreach:** Conduct a wide range of outreach activities seeking primarily to increase participation.

## FINANCE

The Finance functional area manages food costs, grants, and expenditures. Related business processes include audits, budgeting, FI processing, forecasting, and setting **Maximum Allowable Departmental Rates (MADR)**s.

CA WIC offers FVVs and FMNP vouchers along with the general WIC FIs. Participants can redeem FVVs at vendors (grocers) and with 190 Farmers and 18 participating markets. FMNP vouchers can only be redeemed at farmers markets.

The reconciliation of FIs and FVVs begins when a vendor enters the serial numbers into VWIX (or equivalent method). Reconciliation of FI and FVV issuance and their corresponding redemption is provided by an automated query using ISIS, which is operated by ITSD and is matched with the data from VWIX. Both data files are received from the State Treasurer's Office (STO) and are automatically matched with the correct record for reconciliation while the paper FI is manually processed. Payments are made, items are rejected for further administrative review, and the reconciled data file is uploaded into ISIS.

The local agencies manually notate which families received FMNP booklets (several vouchers) and the check booklets that they are assigned. FMNP vouchers do not have a system such as VWIX to enter serial numbers which would then allow the STO to verify that vouchers are being redeemed by an authorized farmer vendor. However, the STO is able to track every FMNP voucher paid to a specified participant by using the information that the local agency enters into ISIS. To verify that each voucher is being cashed by an authorized farmer vendor, staff is able to view individual scanned images of each FMNP voucher using a system called E-TRAC. Each image is then checked for

a farmer vendor identification number and logged into an excel sheet to track the number of checks that each farmer redeems. Staff also document which farmers/companies are depositing checks that are not authorized farmer vendors. All check reconciliation data is kept in separate Excel sheets.

### Business Processes

- **Budgeting, Program:** Ensure the State program is solvent, interact with external stakeholders, monitor full expenditure of the federal grant(s), review obligations/cash flow and provide information used to gain authority to spend Federal dollars. Complete monthly, quarterly and annual, management, State and Federal reporting (798 Reports).
- **Budgeting, Local WIC agency:** Ensure the 84 local agencies are solvent and provide authority to spend based on local WIC agency maximum payable amounts in contract. The base grant plus any additional funds given to a local WIC agency is issued through an “Authority to Spend” (ATS) letter that is mailed. Throughout the year as funding is made available to local WIC agencies, additional ATS letters are issued. After the authorization, the process tracks local WIC agency invoices, monitors budgets, and expenditures for each of the 84 Local Agencies. Conduct monthly mailing of ATS letters and regular reconciliation with State posted expenditures.
- **Forecasting:** Prepare fiscal projections and reconciliation of actual expenses for food funding needs, participation levels, rebate revenues and expenditures of available food funds. Complete monthly Compilation of an Expenditure Forecast Report by line item.
- **MADRs:** Monitor, review and recommend manual adjustments to MADRs to ensure cost containment. Conduct bi-weekly reviews of MADRs.
- **FI Processing, FIs:** Monitor and document FI processing from issuance, point of purchase, through the central banking process. Daily reconciliation takes place via the STO’s paid FIs which are then reconciled with FI issuance, activity, and disposition. Analyze and recommend payment levels for rejected FIs. Review reimbursement requests from banks. Coordinate payment through STO and California Department of Public Health (CDPH) Accounting. Reconcile STO payments to CalSTAR Online Reporting Environment (CORE), the official state ledger, to ensure accuracy. Perform internal audit of FIs’ paid as mandated by the USDA. *Up to 5 million issued per month, 90-96% or about 4.8 million redeemed per month. 2,000 Rejected and reviewed per day. Daily reconciliation of massive data files, between STO and ISIS.*
- **FI and FVV Processing:** A subset of staff conducts most WIC processes for the FVVs: Local WIC agency Support, Vendor Management (farmers and market

managers), Training and Nutrition Education. Analyze and recommend payment levels for rejected FVVs.

- **FI Processing, Farmers' Market Nutrition Program:** Local WIC agencies manually notate which families received FMNP booklets (several vouchers) and the check booklets that they are assigned. FMNP vouchers do not have a system (like VWIX) to enter serial numbers that allow the STO to verify that vouchers are being redeemed by an authorized farmer vendor but STO is able to track every FMNP voucher paid to a specified participant by using the information that the Local Agency enters into ISIS. To verify that each voucher is being cashed by an authorized Farmer Vendor staff view individual scanned images of each FMNP voucher using a system called E-TRAC. Each image is checked for a farmer vendor identification number and logged into an excel sheet to track the number of checks that each farmer redeems. Staff also document which farmers/companies are depositing checks that are not authorized farmer vendors. All check reconciliation data is kept in separate Excel sheets. FMNP vouchers are paid. In 2010, 476,240 FMNP vouchers were processed (746,035 Issued, 63.84% redemption rate. *The five-month program takes several months per year to reconcile.*
- **Audits:** Conduct and respond to frequent audits.

#### Working with other Functional areas

- Program Integrity collections are not adequately documented so that invoicing and money acceptance have proper checks and balances. Additionally there is no system that provides aging of accounts, which is an accounting best practice. Finally, everything is recorded in Excel, which can be manipulated without any documentation of who made the change and what change was made.
- MADRs are provided to Vendors and to the STO for comparison in FI processing.
- Local WIC agency Fiscal Section has direct contact with Local Agencies and provides oversight of expenditures.
- Program Integrity and Policy processes provide program evaluation in regards to FVVs.

#### **LOCAL WIC AGENCY SUPPORT**

Local Agency Support Liaisons provide consultation to 84 Local Agencies who contract with California WIC to deliver program services to participants.

Local Agency Support processes are supported by paper documents/files. Use of ISIS is limited to looking up records to gather information to address complaints or to review record screen shots for provide technical assistance. Numerous ad hoc reports are run

to ensure mandatory data is collected and to review key indicators. Staff process paper contracts by manually entering the data, processing, and maintaining paper files.

### Business Processes

- **Program Services (Technical Assistance):** Provide customer service to local WIC agencies. Provide preliminary onsite program evaluation, guidance, and monitor corrective action plans (7 CFR 246.19). Process complaint forms relating to participants and local WIC agencies. Ten staff members are assigned specific Local Agencies to serve. Visits can occur up to all 84 agencies per year with each visit taking one week of staff time to prepare and conduct.
- **Contract Management:** Develop, review, and approve three-year funding applications and amendments, procurements and subcontracts. Documents are provided by email and are returned by postal mail with original signatures. Two full time staff members manage the contracts and procurement requirements and ten staff members are assigned to the local WIC agencies.
- **Caseload Management:** Monitor full utilization of funding to recommend reallocation of caseload and identify unmet needs in order to assist in defining areas for expansion. One full time staff member compiles and analyzes data from several sources and provides ongoing reports to management.

### Adjunct Program Administration, FMNP:

The Farmers' Market Nutrition Program (FMNP) is funded by the U.S. Department of Agriculture (USDA) and began in the 1990s to provide fresh, nutritious, locally grown fruits and vegetables from farmers' markets to low-income families. Through CA WIC, each eligible family receives \$20 in vouchers to purchase fresh fruits, vegetables, and cut herbs at WIC-approved Certified Farmers' Markets in California during the season, from May through September (may be subject to change). California operates one of the largest WIC Farmers' Market Nutrition Program in the nation. In 2010, 74 Local Agencies, 149,200 WIC families, about 1000 farmers, 435 certified markets participated in the program. Most of the FMNP processes are supported in ISIS, however, authorizing farmers who do not also accept WIC CVV's, and the detailed reconciliations, are handled in an external database.

### Business Process

- **Contract Management:** Provide all contract management services similar to local WIC agency support but for contracts that are re-authorized every three years.

### Work with other Functional Areas

- The financial functional area works to define caseload amounts and transmit (email and postal mail) the Authority to Spend forms.
- The policy functional area creates and distributes policies and the local WIC agency support provides guidance through answering questions. The Policy function also conducts the formal program evaluations every two years on each local WIC agency. Local WIC agency support function provides technical assistance and follows up after the formal program evaluation, if needed, to ensure a corrective action plan is created and implemented.
- Refer possible participant or local WIC agency fraudulent activity to the Program Integrity function.

## NUTRITION EDUCATION

Nutrition Education services provides resources for nutrition education and outreach efforts conducted at Local Agencies. In addition, this function creates food packages; the combination of food items based on tailored nutritional needs, and approves new food items to be included on the Approved Product List (APL).

Staff manually process paper applications for food items. Twelve separate Microsoft Access databases are used to record a list of food items, which is further, documented through paper and scanned files. This functional area highly desires access to a wide variety of collected data. Ad hoc report requests and manual compilation are significant portions of the processes.

### Business Processes

- **Education Development:** Create and revise education materials as well as monitor and approve local WIC agency created materials. *Each handout is revised every two years and new materials are created, others combined, as needed. For each piece created or revised, there are one or more project leads at WIC, one or more designers at Office of State Publishing (OSP), WIC staff members who track projects and funding, an OSP project manager and a contracted translation company. All materials are field tested through the Survey processes.*
- **Outreach:** Create marketing and outreach materials, provide assistance to seven field organizers and provide outreach to statewide organizations such as the health care community. *This activity requires one-person full time<sup>1</sup>.*

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<sup>1</sup> No media campaigns have been conducted since 2000 due to limited funding.

- **Food Benefit Administration:** Maintenance of Food Packages and approval of submitted food items.
- **Formula Administration:** Approve individual participant applications for use of Therapeutic Formula. Administer the Invitation to Bid on the formula rebate contract.
- **Inventory:** Approval and monitoring of total OSP inventory quantities. *One staff member at 40% time and one staff member at 10% time track inventory status of all WIC materials at OSP warehouse and order reprinting.*
- **Ordering:** Order and then distribute Breast Pumps on behalf of the local WIC agencies and assist with education material orders, annually. *This activity requires three staff members at 20% time each.*
- **Surveys:** Oversee ad hoc surveys of participants. *Annual Community Breastfeeding Assessment (required of BPC Agencies and others encouraged to also participate) and three to five other surveys per year are collected by the Vista Vanguard Software and analyzed by a paid university staff. WIC uses Survey Monkey surveys to gather information from local WIC agency staff. Conduct field-testing to get participant and staff feedback on materials being developed.*
- **Online Education:** Support the inclusion of online education options to be promoted and offered by Local Agencies. *One staff member at 25% time and one staff member at 10% time support this activity. One staff member at 15% time maintains postings of education materials.*

#### Adjunct Program Administration, BPC:

Annual USDA grant funding has encouraged investment in breastfeeding promotion and support since 1989. Since 1995, additional distinct grant funding was added to formalize the program. Since 2004, CA WIC Program received \$2 Million for the implementation of the Breastfeeding Peer Counseling Program using the “Loving Support through Peer Counseling” model. In 2011, the grant funding increased to \$12 million dollar per year, which supports the programs operation at 50 Local Agencies.

The BPC program staff have created a case management and data storage application. The program uses ISIS to retrieve data and will update any relevant data fields, this duplicate entry or question asked in a slightly different way inherently makes the data inconsistent. Additionally, BPCs often work offsite and connect through public networks and must be able to access and update BPC records in a secure manner.

#### Business Processes

- **Technical Assistance:** Prepare curriculum, provide training and ongoing technical assistance. *Eleven staff members full time, Registered Dieticians and Analyst paired. Provide assistance (50 Agencies), training, and onsite visits (25 a year).*

- **Applications and Review:** Process applications, review breastfeeding rates, review budgets and expenditure of funds. *These activities are performed by six staff members full time.*

#### Work with Other Functional areas

- After approval of Therapeutic Formula, the Program Integrity and Policy function works with state contracts to ensure WIC is the “payer of last resort.”
- Known lost or stolen Breast Pumps are reported to the Program Integrity and Policy function for follow-up.
- Local WIC agencies provide Breast Pumps by request through an annual survey, invoicing is received and paid for by the state, and then the inventory is passed to local WIC agencies to use and track. Local WIC agencies send paper forms to the Office of State Publishing (OSP) to order materials.

### **PROGRAM INTEGRITY AND POLICY**

Program Integrity and Policy functional area processes ensure the program is operating in accordance with federal and state laws, regulations, and procedures.

Program Integrity and Policy processes are supported by paper documents/files and manual entry into Excel spreadsheets. Use of ISIS is limited to looking up records to review record screen shots as a means to sample policy compliance. Staff may spend significant time finding and printing out numerous relevant screenshots. Staff time and technology limitations have resulted in no digital storage of data and all processes move from desk to desk via a paper file. With limited staff, cumbersome manual processes and paper files the results of Program Integrity and Policy efforts are not regularly communicated to staff that work with the same Local Agencies or Vendors.

#### Business Processes

- **Program Policies:** Interpret and communicate, to staff and external partners, applicable State and Federal regulations and pending legislation. *Zero to four legislative bills that demand immediate intense work for a staff member for several days, three to four times during a year. USDA policy directives vary in the number issued and are provided throughout the year; necessitating immediate review, guidance and adherence.*
- **Monitor Complaints:** Receive complaints by phone or email (from a fraud website) to be printed and then dispersed based on information provided to the appropriate

one of several work units. *Conducted by one person 100% time devoted and is rotated among staff.*

- **Compliance Monitoring:** Conduct on-site inspections, posing as participants, to verify vendors' program policy compliance. *From 2006 to 2010, WIC's contract for vendor audits has increased from 65 audits to 200, a threefold increase in the same period, reflecting the 34 percent increase in authorized vendors.*
- **Routine Monitoring:** Conduct on-site inspections to verify program policy compliance for local WIC agencies (7 CFR 246.19) and vendors (CCR 40751 & 40752). *Per Federal Mandate, monitor (50%) 42 Local Agencies each year taking over two months to compile information.*
- **Investigations:** Conduct investigations involving two or more onsite visits to vendors that are presented on a multi variable calculated "High Risk" report (7 CFR 246.12). *5 percent of vendors must receive onsite monitoring each year. 1,000 high risk vendors are visited two or more times to determine compliance and assign sanctions (CCR 22 Ch. 6, Section 40740 and 40741).*
- **Collections:** Recovery of overpayments and recovery amounts that are put back into the food funds (7 CFR 246.23). *The State recovers tens of thousands of dollars from violating vendors each year. In fiscal year 2010, money recouped totaled almost \$400,000: Local Agencies (\$64,205), Vendors (\$315,039), and Participants (\$19,772).*
- **Administrative Hearings:** (7 CFR 246.9) Coordination occurs with the court system if applicable, WIC provides paper documentation.

"Noteworthy Initiative: The State agency is to be commended for its impressive track record of successful administrative review hearings upholding the Program's determinations to disqualify vendors and impose other vendor sanctions. We note that, out of the nearly 90 administrative review hearings that have been held in the past 3 years, the State agency has not lost a single case."<sup>2</sup>

#### Work with other Functional areas

- Local WIC agency support provides representatives available to answer policy questions. Policies are communicated to Local WIC agency support staff at the same time as local WIC agencies. Local WIC agency support serves as an

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<sup>2</sup> Quote from USDA; CA 2011 STAR.

intermediary to learn about the meaning of policies and communicate the understanding to local WIC agencies. The Policy business process re-enters to review compliance every two years.

- **External Communication:** Efforts being expended to create a WIC-MD (medical provider relationship) and work with Insurance companies to resolve individual and group coverage of therapeutic formula.
- **Audit:** (7 CFR 246.24) Support investigations conducted by the State Controller's Office into local WIC agency financials and to conduct vendor inventory audits.
- **Internal Communication:** Several work units hold files of information on vendors and local WIC agencies. Communication between work units can be behind the scenes labor intensive. Information on an entity under review may not be received until after it would have proved to be useful.

## **REPORTING**

### System Support of Reporting Business Processes

Local Agency staff create reports from a reporting environment, WIX, which contains seven universes containing between two (2) months and 13 months of data. Statewide data can be accessed by state WIC staff , and local agencies have access to their own specific data and statewide summary data. WIX provides standard reports and ad hoc functionality. . In addition, local agencies can request ad hoc reports from the state WIC.

State WIC staff have ad hoc reporting capabilities using the QMF reporting tool for reports not available in WIX. These data requests can be for various reasons and sources, including local agencies, state WIC staff, or the public.

### Business Process

- **Ad hoc Reporting:** Provide support to staff in the use of WIX and QMF. Receive requests and perform ad hoc reporting. Large or complicated reports are forwarded to ITSD for completion and results returned to the requestor. *On average, 80 ad hoc requests are processed (some are repetitive monthly/quarterly) per month averaging just less than one hour each.*
- Complex ad hoc queries must be processed by CDPH ITSD staff.

## TECHNOLOGY SUPPORT<sup>3</sup>

The Technology Support functional area provides support to State and Local Agency WIC staff, and Vendors in the use of CA WIC systems including; account administration, applications, hardware/software, and connectivity.

### Business Processes

- **Network and Desktop Support:** Maintain the systems user hardware, software and networking capabilities.
- **Application Support:** Staff members create software applications to meet the current needs expressed by staff.
- **System Modifications:** Create design documentation and submit requests for changes/enhancements and monitor throughout the project life cycle. *Over the last ten years, there has been a running list at constant level of 70 requests for modifications. Each request is addressed based on priority therefore many items remain on the list for a long period of time.*
- **Testing:** Test the system, production and acceptance environment, as well as ensure hosting changes do not impact the system performance. *Staff distributes their time between system modifications and testing.*
- **Help Desk, First Level Support:** First point of contact for support available to internal and external customers to troubleshoot all issues pertaining to WIC business applications, i.e. ISIS, VWIX, and WIX, account administration, mainframe connectivity, hardware and printers. Help Desk answers calls, documents caller information and actions taken to resolve or escalate the issue in Remedy. Technical Support also provides “how to” guidance to local WIC agencies and vendors and often comprehensive training as necessary to assist the customer. *CA WIC receives 650 calls and 200 emails average per week. Issue resolution takes approximately twelve minutes to resolve. Shortest issues take one minute and complex issues have taken 120 minutes. Call volume is consistent; unless there are any system changes problems, preventive maintenance issues, printing problems, power outages, telecom issues, VWIX, or ISIS glitches or other OTech hardware issues such as a major router down. These types of events could spike call volume by 30% or more calls per week; 800-850 calls per week or more.*

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<sup>3</sup> In 2012, California Department of Public Health staff are being consolidated into a work unit outside of the WIC program. Therefore, it is unknown which technology support processes will remain within the WIC program.

- **Help Desk, Second Level Support:** Applications, account administration, and printers are escalated if complex issue. *Approximately 20 cases, taking about one hour each, are escalated to second level support each month.*
- **System Account Administration:** Creation/reset of accounts and installation of system programs. *Account administration takes 50% of one staff member's time. While a majority of the accounts are not active, accounts need to be reset after months of nonuse: 50 State WIX Users and 350 Local WIC agency WIX Users.*
- **Communications:** Provide updates to users about system availability. Messages posted in many locations in several ways such as mass email messages, website announcements and notifications to users within an application. Six locations are manually updated to describe minor or advance notice of service disruption:
  - ISIS Broadcast News;
  - Email distribution list;
  - WICWorks website;
  - VWIX messages;
  - Emergency Notification System which provides the capability to inform local WIC agency Primary WIC Contacts; WIX Users, Local WIC agency IT staff and State Staff (messages are sent real time to whatever source provided, such as work email, home email, work phone, cell phone, et al); and
  - Primary WIC Program Contact (PWPC) (emailed state policy notifications, directives, requests, et al).

#### Work with other Functional Areas

- Connectivity and Hardware issues that are not able to be remedied in first level support are escalated to external support at ITSD or OTech.
- Third level support is provided by an external support partner.

#### **TRAINING**

The state WIC office provides training to the staff of eighty-four Local Agency offices and over five thousand grocery stores statewide. Training is required to disseminate program changes to Vendors and ensure qualified Local Agency staff.

Lists of Vendors needing to attend a training is requested weekly as an ad hoc report from ISIS containing only basic contact information and a Vendor's reauthorization expiration date. New Vendors are known through email communications with the Vendor Management process. Staff have created an Access Database that is used to keep track of training attendance while also providing the ability to print sign in lists,

reporting (ISIS and WIX are not used) and linking with the Word mail merge function for mailings. Training attendance is entered three times: into the Training Access Database, ISIS (only to update the expiration date), and transferred into an Excel spreadsheet to be sent to Vendor Management staff.

### Business Processes

- **Vendor Training Communication:** Notify vendors, sending up to three letters, about required training. *One staff members time is spent answering phones, planning trainings and sending out mailings.*
- **Vendor Training:** Conduct vendor training for 5,000 vendor grocer sites upon application and every three years thereafter. *Staff members conduct 75 trainings per year, 42 involving travel.*

### Work with Other Processes

- **Vendor Management Process:** New Vendors are identified through the receipt of a list, approximately five to thirty vendors up to two times a week. In return, a list is sent back with new expiration dates.

## **VENDOR MANAGEMENT**

Vendor management oversees the authorization and re-authorization of over 5,000 WIC Vendor stores and 2,200 contracts. Vendors enter an agreement with CA WIC, which requires several elements of compliance and future training to enable future reauthorizations. The California economy benefits from the infusion of \$900 million per year (\$70 million per month) in grocery sales and \$1.9 million per year in farmer's market sales.

WIX is not used for Vendor Management. Applications to become a WIC Vendor are submitted by mail and manually documented in an Excel spreadsheet. A binder is used to hold applications and to assign unique identification numbers. Data is manually printed from various data sources and then manually inputted into an excel spreadsheets as well as ISIS.

### Business Processes

- **Application:** Accept paper applications for new vendors and sites. *In 2009 FFY, 578 applications were processed and authorized. Over the last five years, the number of vendors increased by 67% to total 5,301 as of April 2011.*

- **Authorization:** Create new vendor contracts. Per Federal mandate<sup>4</sup>, cost containment strategies must be implemented. CA WIC has implemented onsite data collection to dictate competitive price and reimbursement levels based on “Peer Groups.”
- **Re-authorization:** Annually re-authorize existing vendor contracts. As necessary, disqualification occurs after imposed sanctions or denial if a vendor does not meet minimum qualifications. *In 2009 FFY, 2,829 vendors were reauthorized. Over the last five years, the number of contracts processed increased by 81% from 1,245 in October 2006 to 2,251 contracts as of March 2011.*
- **Communication:** Changes in policies are communicated by mailed Vendor Alerts as well as notification of vendors as to authorization and re-authorization
- **Appeals:** Process appeals to disqualification or denial of vendor authorization. *Each appeal can take three weeks to three months to process.*

#### Work with other Functional areas

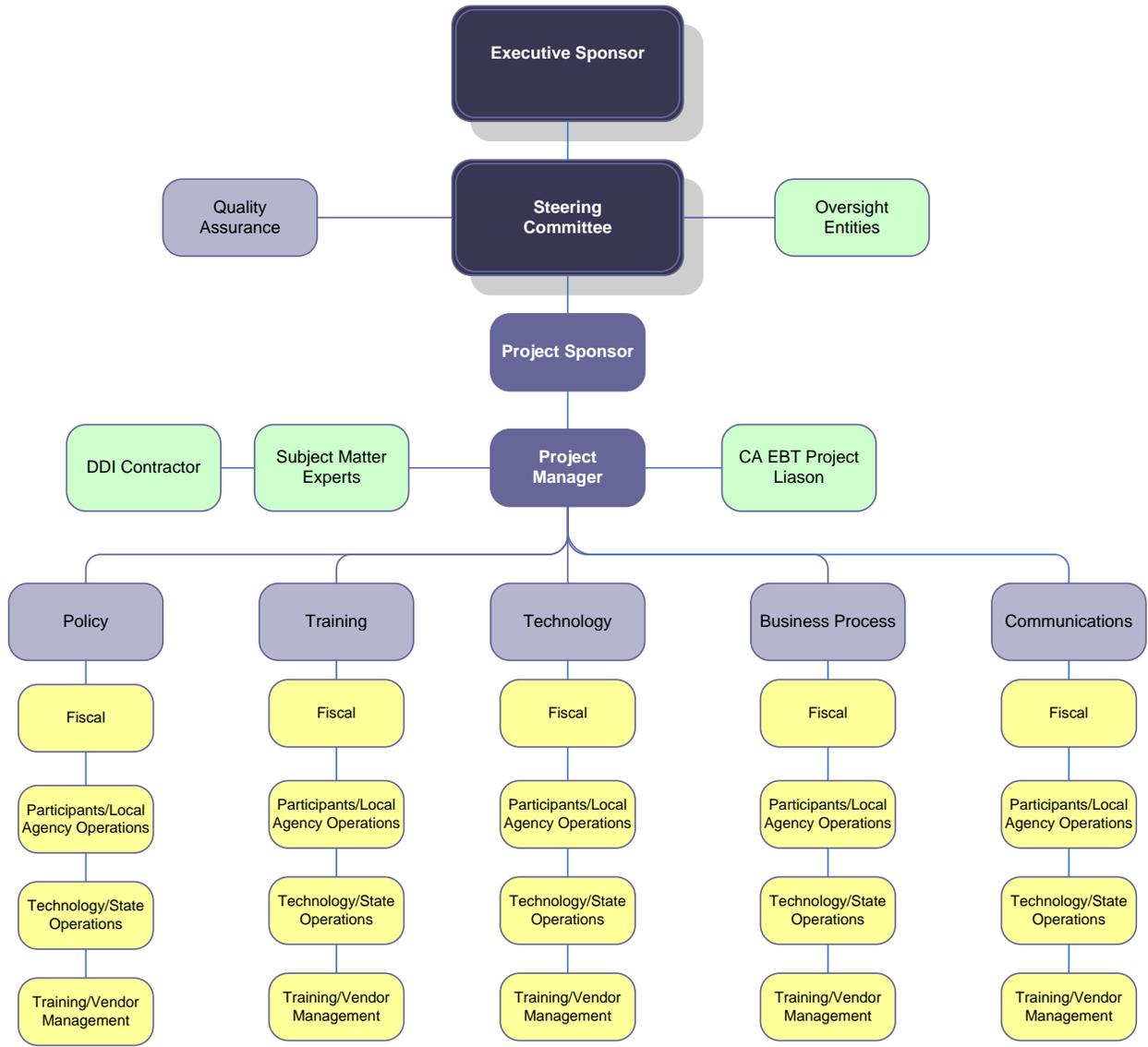
- Vendor Management relies on the Training Functional Area to keep vendors current with the required training, once upon authorization and then every two years thereafter.
- Monitoring is conducted; negative results from Program Integrity and Policy monitoring would impact re-authorization.
- Regular manual communication with Cal FRESH to ensure consistency in the authorization and disqualification of mutual vendors.

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<sup>4</sup> The WIC vendor cost containment final rule was published on October 8, 2009, concluding all of the WIC-related rulemakings required by the Child Nutrition and WIC Reauthorization Act of 2004, P.L. 108-265.

## **Appendix F**

### **Project Organization Chart**



## **Appendix G**

### **Current System Ongoing Maintenance and Operations Labor Costs**

**Current System, Ongoing Maintenance and Operations Labor Costs**

<u>Position Number</u>	<u>Classification</u>	<u>% Time</u>	<u>Salary<sup>1</sup></u>	<u>Benefits<sup>2</sup></u>	<u>Monthly Cost</u>	<u>Yearly Cost</u>
ITSD						
580-151-1470-703	Associate Information Systems Analyst	100%	\$5,897	\$1,769	\$7,666	\$91,993
580-151-1579-001	Associate Programmer Analyst	100%	\$5,897	\$1,769	\$7,666	\$91,993
580-151-1384-003	Management, Data Processing Manager II	100%	\$7,464	\$2,239	\$9,703	\$116,438
580-151-1384-004	Management, Data Processing Manager II	100%	\$7,464	\$2,239	\$9,703	\$116,438
580-151-1393-003	Management, Data Processing Manager III	100%	\$8,239	\$2,472	\$10,711	\$128,528
580-151-1312-005	Senior Information Systems Analyst (Specialist)	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1337-002	Senior Information Systems Analyst (Specialist)	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1337-003	Senior Information Systems Analyst (Specialist)	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1337-006	Senior Information Systems Analyst (Specialist)	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1583-001	Senior Programmer Analyst, Specialist	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1583-004	Senior Programmer Analyst, Specialist	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1583-006	Senior Programmer Analyst, Specialist	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1583-007	Senior Programmer Analyst, Specialist	100%	\$7,109	\$2,133	\$9,242	\$110,900
580-151-1312-006	Staff Information Systems Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
580-151-1581-006	Staff Programmer Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
580-151-1581-007	Staff Programmer Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
580-151-1581-015	Staff Programmer Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
580-151-1581-014	Staff Programmer Analyst, Specialist	100%	\$6,466	\$1,940	\$8,406	\$100,870
580-151-1373-001	Systems Software Specialist II (Technical)	100%	\$7,097	\$2,129	\$9,226	\$110,713
580-151-1373-002	Systems Software Specialist II (Technical)	100%	\$7,097	\$2,129	\$9,226	\$110,713
580-151-1367-001	Systems Software Specialist III (Technical)	100%	\$7,796	\$2,339	\$10,135	\$121,618
ITSD Subtotal					\$189,999	\$2,279,987
WIC Testing Section						
1470-712	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-704	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-701	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1381-001	Management, Data Processing Manager I	100%	\$6,789	\$2,037	\$8,826	\$105,908

<sup>1</sup> Salary is listed at the top of the salary range. Benefits were estimated as 30% of Salary.

<sup>2</sup> Benefits are calculated as 30% of salary, added to derive total cost of labor.

<u>Position Number</u>	<u>Classification</u>	<u>% Time</u>	<u>Salary<sup>1</sup></u>	<u>Benefits<sup>2</sup></u>	<u>Monthly Cost</u>	<u>Yearly Cost</u>
1384-001	Management, Data Processing Manager II	70%	\$5,225	\$1,567	\$4,755	\$57,055
1393--001 6-08	Management, Data Processing Manager III	40%	\$3,296	\$989	\$1,714	\$20,565
1312-006	Staff Information Systems Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
1312-013	Staff Information Systems Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
1312-012	Staff Information Systems Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
1312-008	Staff Information Systems Analyst	100%	\$6,466	\$1,940	\$8,406	\$100,870
Testing Section Subtotal					\$71,915	\$862,986
WIC Help Desk						
1470-705	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-708	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-714	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-706	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-707	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-703	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-715	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1470-709	Associate Information Systems Analyst, Specialist	100%	\$5,897	\$1,769	\$7,666	\$91,993
1381-002	Management, Data Processing Manager I	90%	\$6,110	\$1,833	\$7,943	\$95,318
4870-901	Student	100%	\$1,941	\$0	\$1,941	\$23,292
Help Desk Subtotal					\$71,213	\$854,555
WIC Subtotal					\$143,128	\$1,717,514
Ongoing Maintenance Total					\$333,127	\$3,997,528

## **Appendix H**

### **Alternative Cost Estimate Maintain the Status Quo**

For California, the Maintain the Status Quo alternative would necessitate several mandatory system modifications to meet minimum USDA requirements. This Appendix shows a very high level estimate on the time and cost associated with such development. After speaking with IT support staff, it was determined that a detailed estimate would be highly labor intensive. Therefore, this alternative was estimated in a high level to provide the minimum information needed to do a comparison of all four alternatives.

The following are estimates taking the into account very minimal factors such as how many functionalities are needed, how many of the staff would need to be dedicated to this item, could the functionality be provided in an externally created application, and could other items be worked on at the same time.

### **Maintain the Status Quo Alternative Assumptions**

- Limited modifications; USDA mandates including EBT ready.
- Modifications will be completed in house with contractor support.
- Some state training as well as training Local WIC Agencies (LAs) regarding new screens, new data entry and proration.
- Staff costs formula is; monthly salary and benefits x number of staff x months (below salary in parentheses)
- Some staff can devote 100% time to creating applications as this is their primary activity, other staff will devote a percentage of time, as they will need to continue to maintain the current systems.
- Unknown how many data fields will need to be added, estimating numerous screens and tables.
- State Staff efforts are limited to current staffing levels.
- Creation of external applications and modifications to the system are possible with current State technology and technical skill sets of the staff.
- An EBT vendor would be able to interface with the current mainframe system.
- A DB contractor costs \$235,000 per year and a Business Objects (BO) contractor costs \$187,000 per year.

## Development Costs

Development Costs of Maintain the Status Quo									
Modification	System	Months	Concurrent ?	WIC/ITSD	Staff Type	# of staff	Salary Benefits	% Time Devoted	\$ Total Development Costs
PROJECT MANAGEMENT		24		WIC	DPM II	2	\$9,031	80%	\$346,790
		24		WIC	DPM III	1	\$10,711	60%	\$154,238
		24		WIC	DPM I	1	\$8,826	80%	\$169,459
		24		WIC	DPM I	1	\$8,826	40%	\$84,730
		24		WIC	Sen. ISA	1	\$9,242	50%	\$110,904
Complaint Log	External	6	No	WIC	SPA/Staff ISA	2	\$8,405	100%	\$100,860
Add data collection fields in ISIS	ISIS	12	Yes	ITSD	ITSD	All	\$190,000	50%	\$1,140,000
MADR	External	12	Yes	Contractor	DB	1	\$19,500	100%	\$234,000
Vendor Price Analysis	External	6	No	WIC	SPA/Staff ISA	2	\$8,405	100%	\$100,860
EBT: Allow prorated food benefit issuance	ISIS	12	No	ITSD	ITSD	All	\$190,000	100%	\$2,280,000
		12		WIC	Sen. ISA	2	\$9,242	80%	\$177,446
EBT: Aggregate benefits, Interface with National UPC Database	ISIS	12	No	ITSD	ITSD	All	\$190,000	50%	\$1,140,000
		12		WIC	Sen. ISA	2	\$9,242	80%	\$177,446
WIC Subtotal									\$3,936,734
ITSD Subtotal									\$4,560,000
Contractor Subtotal									\$234,000
Development Cost Total									\$8,730,734

**Remaining Ongoing Maintenance Costs<sup>1</sup>**

Modifications	Months	WIC/ITSD	Staff Type	# of staff	Salary & Benefits	% Maintenance time	Salary & Benefits x % Time	Proportional Salary x Months
Staff Participating in Development, Remaining time allocated to ongoing maintenance								
PROJECT MANAGEMENT	24	WIC	DPM II	2	\$9,031	20%	\$1,806	\$43,349
	24	WIC	DPM III	1	\$10,711	40%	\$4,284	\$102,826
	24	WIC	DPM I	1	\$8,826	20%	\$1,765	\$42,365
	24	WIC	DPM I	1	\$8,826	60%	\$5,296	\$127,094
	24	WIC	Sen. ISA	1	\$9,242	50%	\$4,621	\$110,904
Complaint Log	6	WIC	SPA/Staff ISA	2	\$8,405	0%	\$0	\$0
Add data collection fields in ISIS	12	ITSD	ITSD	All	\$190,000	50%	\$95,000	\$1,140,000
MADR	12	Contractor	DB	1	\$19,500	0%	\$0	\$0
Vendor Price Analysis	6	WIC	SPA/Staff ISA	2	\$8,405	0%	\$0	\$0
EBT: Allow prorated food benefit issuance	12	ITSD	ITSD	All	\$190,000	0%	\$0	\$0
	12	WIC	Sen. ISA	2	\$9,242	20%	\$1,848	\$22,181
EBT: Aggregate benefits, Interface with National UPC Database	12	ITSD	ITSD	All	\$190,000	50%	\$95,000	\$1,140,000
	12	WIC	Sen. ISA	2	\$9,242	20%	\$1,848	\$22,181
Subtotal							\$211,469	\$2,750,899
Staff providing maintenance, not involved in development								
	24		All Help Desk	All	\$63,270			\$1,518,480
	12		SPA/Staff ISA	4	\$33,623			\$403,478
	24		AISA	3	\$7,666			\$183,986
Subtotal								\$2,105,945
Ongoing Maintenance Total <sup>2</sup>							\$316,029	\$4,856,844

<sup>1</sup> See Appendix G: Current System(s) Operating Expenses for the breakdown of the calculations used to determine labor base costs.

<sup>2</sup> Maintenance in this context refers to staff diverting focus to development but will continue their other duties. These costs quantify the labor costs for the on-going maintenance of the current system during the project.

## **Appendix I**

### **Alternative Cost Estimate – Modify the Current System**

For California, the Modify the Current System alternative would necessitate several mandatory system modifications to meet minimum USDA requirements in addition to other functionalities deemed as necessary for a “model” system. This Appendix shows a very high level estimate on the time and cost associated with such development. After speaking with IT support staff, it was determined that a detailed estimate would be labor intensive. Therefore, this alternative was estimated in a high level to provide the minimum information needed to do a comparison of all four alternatives.

The following are estimates taking the into account very minimal factors such as how many functionalities are needed, how many of the staff would need to be dedicated to this item, could the functionality be provided in an externally created application, and could other items be worked on at the same time.

### **Modify the Current System Alternative Assumptions**

- Modifications to the system(s) to meet USDA model FReD requirements.
- Modifications will be completed in house with contractor support.
- Some state training as well as training Local WIC Agencies (LAs) regarding new screens, new data entry, and proration.
- Staff costs formula is; monthly salary and benefits x number of staff x months. (below salary in parentheses)
- Some staff can devote 100% time to creating applications as this is their primary activity, other staff will devote a percentage of time as they will need to continue to maintain the current systems.
- Unknown how many data fields will need to be added, estimating numerous screens and tables.
- State Staff efforts are limited to current staffing levels.
- Creation of external applications and modifications to the system are possible with current State technology and technical skill sets of the staff.
- An EBT vendor would be able to interface with the current mainframe system.
- A DB contractor costs \$235,000 per year and a Business Objects (BO) contractor costs \$187,000 per year.
- No purchase of external software solutions, all external applications made in-house by WIC staff.
- Estimates do not include costs for changing the back end of the system. (i.e. change to Oracle)

## Development Costs

Development Costs of Modification								
Modification	System	months	WIC/ITSD	Staff Type	# of staff	Salary Benefits	% Time	\$ Total Development Costs
PROJECT MANAGEMENT		75	WIC	DPM II	2	\$9,031	80%	\$1,083,720
		75	WIC	DPM III	1	\$10,711	60%	\$481,995
		75	WIC	DPM I	1	\$8,826	80%	\$529,560
		75	WIC	DPM I	1	\$8,826	40%	\$264,780
		75	WIC	Sen. ISA	1	\$9,242	50%	\$346,575
Train staff and conduct work	External	75	Contractor	DB	2	\$19,500	100%	\$2,925,000
		12		BO	1	\$15,583	100%	\$186,996
Make the following modifications to ISIS: Add data collection fields in ISIS (Vendor Training, Blood work, etc)	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
EBT: Allow prorated food benefit issuance, Aggregate benefits, Interface with National UPC Database	ISIS	12	ITSD	ITSD	All	\$190,000	100%	\$2,280,000
		12	WIC	Sen. ISA	2	\$9,242	80%	\$177,446
System must present historical Food Prescriptions, recommend a Food Prescription, and allow for the tailoring or a selection of another Prescription.	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System must support the voiding, reissuance, and printing of previous months of partial/full food benefits	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System must print several types of Food Benefits and allow the modification of the design, format, and denomination of Food Benefits.	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System must support identification of dual participation	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System must be capable of executing defined algorithms for high risk record identification, determining nutritional risk and priority	ISIS	9	ITSD	ITSD	All	\$190,000	100%	\$1,710,000
		9	WIC	WIC Testing	All	\$65,447	80%	\$471,218

System must be able to automatically generate compliance buy participant records and retain compliance buy data	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System will verify if applicant is eligible for program certification or temporary food benefits and FMNP benefits	ISIS	6	ITSD	ITSD	All	\$190,000	100%	\$1,140,000
		6	WIC	WIC Testing	All	\$65,447	80%	\$314,146
System must support the automatic generation of notifications to users based on predefined scenarios	ISIS	9	ITSD	ITSD	All	\$190,000	100%	\$1,710,000
		9	WIC	WIC Testing	All	\$65,447	80%	\$471,218
Support entry, maintenance, and easy viewing of current & historical data.	Extranet	3	ITSD	ITSD	All	\$190,000	100%	\$570,000
		3	WIC	WIC Testing	All	\$65,447	80%	\$157,073
Create the following external applications: Complaint Log, Vendor Price Analysis	External	12	WIC	SPA/Staff ISA	4	\$8,405	100%	\$403,440
System must manage rebates, prepare invoices, monitor collections, and estimate rebates	External	6	WIC	SPA/Staff ISA	4	\$8,405	100%	\$201,720
System must support the calculation of the distance between vendors and local agency sites to determine participant access as well as evaluate which vendor applicants best meet State needs	External	3	WIC	SPA/Staff ISA	4	\$8,405	100%	\$100,860
System must plot all entries of weight (BMI, height, length, etc.), calculate and plot automated growth chart based on categorical scenario	External	6	WIC	SPA/Staff ISA	4	\$8,405	100%	\$201,720
System must calculate and assign a Maximum Allowable Department Reimbursement (MADR) and maximum quantity for each UPC (Food item) and Food Instrument	External	9	WIC	SPA/Staff ISA	4	\$8,405	100%	\$302,580
System must capture information about the authorized foods establishing a UPC database by category and subcategory	External	6	WIC	SPA/Staff ISA	4	\$8,405	100%	\$201,720
System must support management of caseload / participation such as allocation, forecasting scenarios, and comparisons to actual data	External	9	WIC	SPA/Staff ISA	4	\$8,405	100%	\$302,580

System must support case management of complaints, investigations, monitoring, compliance, appeals, sanctions / collections, and disqualifications.	External	9	WIC	SPA/Staff ISA	4	\$8,405	100%	\$302,580
WIC Subtotal								\$5,179,030
ITSD Subtotal								\$14,250,000
Contractor Subtotal								\$3,111,996
Total Development Cost								\$22,541,026

**Remaining Ongoing Maintenance Costs<sup>1</sup>**

Modifications	Months	WIC/ITSD	Staff Type	# of staff	Salary & Benefits	% Maintenance time	Salary & Benefits x % Time	Proportional Salary x Months
Staff Participating in Development, For most staff remaining time allocated to ongoing maintenance								
PROJECT MANAGEMENT	75	WIC	DPM II	2	\$9,031	20%	\$1,806	\$135,465
	75	WIC	DPM III	1	\$10,711	40%	\$4,284	\$321,330
	75	WIC	DPM I	1	\$8,826	20%	\$1,765	\$132,390
	75	WIC	DPM I	1	\$8,826	60%	\$5,296	\$397,170
	75	WIC	Sen. ISA	1	\$9,242	50%	\$4,621	\$346,575
Train staff and conduct work	75	Contractor	DB	2	\$19,500	0%	\$0	\$0
	12	Contractor	BO	1	\$15,583	0%	\$0	\$0
Make the following modifications to ISIS: Add data collection fields in ISIS (Vendor Training, Blood work, etc)	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
EBT: Allow prorated food benefit issuance, Aggregate benefits, Interface with National UPC Database	12	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	12	WIC	Sen. ISA	2	\$9,242	0%	\$0	\$0
System must present historical Food Prescriptions, recommend a Food Prescription, and allow for the tailoring or a selection of another Prescription.	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536
System must support the voiding, reissuance, and printing of previous months of partial/full food benefits	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536
System must print several types of Food Benefits and allow the modification of the design, format, and denomination of Food Benefits.	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536
System must support identification of dual participation	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536

<sup>1</sup> See Appendix G: Current System(s) Operating Expenses for the breakdown of the calculations used to determine labor base costs.

Modifications	Months	WIC/ITSD	Staff Type	# of staff	Salary & Benefits	% Maintenance time	Salary & Benefits x % Time	Proportional Salary x Months
System must be capable of executing defined algorithms for high risk record identification, determining nutritional risk and priority	9	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	9	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$117,805
System must be able to automatically generate compliance buy participant records and retain compliance buy data	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536
System will verify if applicant is eligible for program certification or temporary food benefits and FMNP benefits	6	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	6	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$78,536
System must support the automatic generation of notifications to users based on predefined scenarios	9	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	9	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$117,805
Support entry, maintenance, and easy viewing of current & historical data.	3	ITSD	All ITSD	1	\$190,000	0%	\$0	\$0
	3	WIC	All app Staff	1	\$65,447	20%	\$13,089	\$39,268
Create the following external applications: Complaint Log, Vendor Price Analysis	12	WIC	SPA/Staff ISA <sup>2</sup>	4	\$8,405	0%	\$0	\$0
System must manage rebates, prepare invoices, monitor collections, and estimate rebates	6	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
System must support the calculation of the distance between vendors and local agency sites to determine participant access as well as evaluate which vendor applicants best meet State needs	3	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
System must plot all entries of weight (BMI, height, length, etc.), calculate and plot automated growth chart	6	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0

<sup>2</sup> WIC Staff that work in Network and Application Support. Staff that do not participate in the maintenance of the system(s) but would join the development effort.

Modifications	Months	WIC/ITSD	Staff Type	# of staff	Salary & Benefits	% Maintenance time	Salary & Benefits x % Time	Proportional Salary x Months
based on categorical scenario								
System must calculate and assign a Maximum Allowable Department Reimbursement (MADR) and maximum quantity for each UPC (Food item) and Food Instrument	9	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
System must capture information about the authorized foods establishing a UPC database by category and subcategory	6	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
System must support management of caseload / participation such as allocation, forecasting scenarios, and comparisons to actual data	9	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
System must support case management of complaints, investigations, monitoring, compliance, appeals, sanctions / collections, and disqualifications.	9	WIC	SPA/Staff ISA	4	\$8,405	0%	\$0	\$0
Subtotal							\$135,577	\$2,079,026
Staff providing maintenance, not involved in development								
	75		All Help Desk	All	\$63,270		\$63,270	\$4,745,250
Subtotal								\$4,745,250
Ongoing Maintenance Total <sup>3</sup>							\$198,847	\$6,824,276

<sup>3</sup> Maintenance in this context refers to staff diverting focus to development but will continue their other duties. These costs quantify the labor costs for the on-going maintenance of the current system during the project.

# **Appendix J**

## **Alternative Cost Estimate**

### **Build**

### Crossroads' Updated Budget for Funding

		Hardware	Telecommunication Evaluation	Personnel	QA Contractor	DD&I Contract	Travel	Other Costs	TOTALS
2008	Q4	\$0.00	\$0.00	\$167,467.62	\$0.00	\$0.00	\$29,180.92	\$2,554.35	\$199,202.89
	<b>Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$167,467.62</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$29,180.92</b>	<b>\$2,554.35</b>	<b>\$199,202.89</b>
2009	Q1	\$0.00	\$0.00	\$167,467.62	\$69,470.00	\$0.00	\$29,180.92	\$2,554.35	\$268,672.89
	Q2	\$0.00	\$0.00	\$167,467.62	\$146,566.00	\$0.00	\$29,180.92	\$2,554.35	\$345,768.89
	Q3	\$0.00	\$0.00	\$184,907.94	\$104,205.02	\$0.00	\$29,180.92	\$2,554.35	\$320,848.23
	Q4	\$0.00	\$35,870.00	\$311,997.02	\$104,205.02	\$89,000.00	\$220,700.92	\$2,554.35	\$764,327.31
	<b>Total</b>	<b>\$0.00</b>	<b>\$35,870.00</b>	<b>\$831,840.20</b>	<b>\$424,446.04</b>	<b>\$89,000.00</b>	<b>\$308,243.68</b>	<b>\$10,217.40</b>	<b>\$1,699,617.32</b>
2010	Q1	\$0.00	\$0.00	\$311,997.02	\$104,205.02	\$13,500.00	\$220,700.92	\$2,554.35	\$652,957.31
	Q2	\$0.00	\$0.00	\$315,747.02	\$108,544.02	\$77,571.00	\$220,700.92	\$2,554.35	\$725,117.31
	Q3	\$0.00	\$0.00	\$400,106.57	\$104,205.02	\$767,628.00	\$220,700.92	\$2,554.35	\$1,495,194.86
	Q4	\$0.00	\$0.00	\$400,106.57	\$104,205.02	\$396,881.00	\$65,660.92	\$2,554.35	\$969,407.86
	<b>Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,427,957.18</b>	<b>\$421,159.08</b>	<b>\$1,255,580.00</b>	<b>\$727,763.68</b>	<b>\$10,217.40</b>	<b>\$3,842,677.34</b>
2011	Q1	\$0.00	\$0.00	\$400,106.57	\$104,205.02	\$93,174.00	\$65,660.92	\$2,554.35	\$665,700.86
	Q2	\$2,264,010.33	\$0.00	\$400,106.57	\$104,205.02	\$531,270.00	\$65,660.92	\$2,554.35	\$3,367,807.19
	Q3	\$0.00	\$67,000.00	\$501,377.59	\$104,205.02	\$283,493.00	\$65,660.92	\$2,554.35	\$1,024,290.88
	Q4	\$2,264,010.33	\$0.00	\$860,261.28	\$104,205.02	\$84,603.00	\$65,660.92	\$2,554.35	\$3,381,294.90
	<b>Total</b>	<b>\$4,528,020.66</b>	<b>\$67,000.00</b>	<b>\$2,161,852.01</b>	<b>\$416,820.08</b>	<b>\$992,540.00</b>	<b>\$262,643.68</b>	<b>\$10,217.40</b>	<b>\$8,439,093.83</b>
2012	Q1	\$0.00	\$0.00	\$1,044,600.03	\$104,205.02	\$1,022,388.00	\$79,260.92	\$2,554.35	\$2,253,008.32
	Q2	\$2,264,010.33	\$0.00	\$685,299.67	\$104,205.02	\$6,147,711.00	\$395,584.92	\$2,554.35	\$9,599,365.29
	Q3	\$0.00	\$0.00	\$685,299.67	\$104,205.02	\$236,283.00	\$29,180.92	\$2,554.35	\$1,057,522.96
	Q4	\$0.00	\$0.00	\$651,809.30	\$104,205.02	\$4,267,712.00	\$540,573.71	\$2,554.35	\$5,566,854.38
	<b>Total</b>	<b>\$2,264,010.33</b>	<b>\$0.00</b>	<b>\$3,067,008.67</b>	<b>\$416,820.08</b>	<b>\$11,674,094.00</b>	<b>\$1,044,600.47</b>	<b>\$10,217.40</b>	<b>\$18,476,750.95</b>
2013	Q1	\$0.00	\$0.00	\$499,963.62	\$104,205.00	\$522,071.00	\$574,708.71	\$2,554.35	\$1,703,502.68
	Q2	\$0.00	\$0.00	\$414,101.37	\$104,205.02	\$2,520,455.00	\$63,315.92	\$2,554.35	\$3,104,631.66
	Q3	\$0.00	\$0.00	\$173,840.10	\$147,473.00	\$250,000.00	\$29,180.92	\$2,554.35	\$603,048.37
	Q4	\$0.00	\$0.00	\$40,869.42	\$0.00	\$120,000.00	\$29,180.92	\$2,554.35	\$192,604.69
	<b>Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$1,128,774.51</b>	<b>\$355,883.02</b>	<b>\$3,412,526.00</b>	<b>\$696,386.47</b>	<b>\$10,217.40</b>	<b>\$5,603,787.40</b>
2014	Q1	\$0.00	\$0.00	\$33,976.03	\$0.00	\$257,680.00	\$29,180.92	\$2,554.35	\$323,391.30
	Q2	\$0.00	\$0.00	\$33,976.03	\$0.00	\$257,679.00	\$25,703.65	\$2,554.35	\$319,913.03
	Q3	\$0.00	\$0.00	\$33,976.03	\$0.00	\$257,679.00	\$0.00	\$0.00	\$291,655.03
	Q4	\$0.00	\$0.00	\$11,325.34	\$0.00	\$257,679.00	\$0.00	\$0.00	\$269,004.34
	<b>Total</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$113,253.43</b>	<b>\$0.00</b>	<b>\$1,030,717.00</b>	<b>\$54,884.57</b>	<b>\$5,108.70</b>	<b>\$1,203,963.70</b>
		<b>\$6,792,031</b>	<b>\$102,870</b>	<b>\$8,898,154</b>	<b>\$2,035,128</b>	<b>\$18,454,457</b>	<b>\$3,123,703</b>	<b>\$58,750</b>	<b>\$39,465,093.43</b>

## **Appendix K**

### **Alternative Cost Estimate – Transfer/Modify a System**

## **Transfer of WIC System, General assumptions**

- California will transfer and implement an available MIS system with modifications.
- The transfer system will include base functionality as detailed within the FReD. Additional functionality to be added to the base system as detailed in the CA functional requirements.
- Implementation support such as system modification and configuration, training, QA, testing, and conversion will be outsourced. The State will provide oversight, project management and support as needed.
- The transfer system will be operated in a state data center; basic system support and maintenance (i.e. system monitoring, system and database administration, site support, etc.) will be provided by State staff.
- The existing California telecommunications infrastructure is adequate for transfer system operations. This will be operated by the State.
- The estimated transfer budget starts with hiring of support contractor and concludes after statewide rollout.
- Cost for equipment is based upon current California data center costs for hardware.
- Infrastructure and Requirements development with the MIS contractor is estimated to start April 1, 2016.
- The project's estimated duration from infrastructure and requirements development to statewide roll out is 45 months.
- The system will use Oracle for the back-end database. State will purchase Oracle licenses for the project as needed. Oracle is similarly priced to several equivalent databases.
- Oracle license cost assumes a 40% discount from standard price of \$30,000 per quad processor.
- The annual Oracle license maintenance costs are estimated at \$5,500 per quad processor.

### Key data used in estimating transfer costs

<b>CA WIC Characteristics</b>	
<b>Local Agencies</b>	84
<b>Local Agency Sites</b>	650
<b>Current System Users</b>	4,480
<b>Implementation activity duration (in months)</b>	
Hardware Procurement & set-up	1
Install & configure Transfer system	1
GAP analysis, requirements defined	2
Design, build and system test	11
Testing and acceptance	3
Train, pilot implementation, evaluation	5
State Wide rollout	22
<b>Total</b>	<b>45</b>

<b>Staff</b>	<b>Hourly Rate<sup>1</sup></b>
<b>Managerial</b>	\$60
<b>Professional (Subject Matter Experts)</b>	\$56
<b>IT Staff</b>	\$54
<b>Clerical</b>	\$15
<b>WIC State Agency Staff</b>	\$45
<b>Local Agency Staff</b>	\$20
<b>Contracted</b>	
<b>Programmer analyst / manager</b>	\$125
<b>Technician / testing</b>	\$110
<b>Call Center / documentation support</b>	\$85
<b>Other</b>	
<b>Travel Cost per day</b>	\$150
<b>Full time equivalence hrs. / mo.</b>	150

<sup>1</sup> The rates presented in the table reflect estimated rates based on current as of December 2011) State of California pay scales and include salary as well as benefits.

California WIC											
Transfer of WIC System											
Summary Budget											
One-Time Costs											
			Federal and State Approvals and Procurement								
Start Up Costs-Executing Phase			FFY 2014 Q1			FFY 2014 Q2			FFY 2014 Q3		
Staff State Costs			Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
	Staff	\$ 8,611,487	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294	\$ 36,294
	Travel (Executing)	\$ 415,330	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813
	Miscellaneous (Procurement-CalTech)	\$ 40,000	\$ -	\$ -	\$ -	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865	\$ 1,865
		\$ 9,604,783	\$ 39,173	\$ 39,173	\$ 39,173	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991
Infrastructure											
	Processors	\$ 5,330,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Software licenses	\$ 1,716,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect	\$ 562,801	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 11,818,819	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Contracted Costs											
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 7,290,806	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Start up Totals	\$ 28,714,408	\$ 39,173	\$ 39,173	\$ 39,173	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991	\$ 40,991
				Fiscal Qtr	\$ 117,518		Fiscal Qtr	\$ 122,973		Fiscal Qtr	\$ 122,973

**California WIC  
Transfer of WIC System**

**Summary Budget  
One-Time Costs**

**Start Up Costs-Executing Phase**

			FFY 2014 Q4			FFY 2015 Q1			FFY 2015 Q2		
Staff State Costs			Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15
	Staff	\$ 8,611,487	\$ 36,294	\$ 36,294	\$ 36,294	\$ 45,674	\$ 45,674	\$ 45,674	\$ 45,674	\$ 45,674	\$ 45,674
	Travel (Executing)	\$ 415,330	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813
	Miscellaneous (Procurement-CalTech)	\$ 40,000	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818	\$ 1,818
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 1,865	\$ 1,865	\$ 1,865	\$ 2,334	\$ 2,334	\$ 2,334	\$ 2,334	\$ 2,334	\$ 2,334
		\$ 9,604,783	\$ 40,991	\$ 40,991	\$ 40,991	\$ 50,840	\$ 50,840	\$ 50,840	\$ 50,840	\$ 50,840	\$ 50,840
Infrastructure											
	Processors	\$ 5,330,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Software licenses	\$ 1,716,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ -	\$ -	\$ -	\$ 111,111	\$ 111,111	\$ 111,112	\$ 111,111	\$ 111,111	\$ 111,112
	Indirect	\$ 562,801	\$ -	\$ -	\$ -	\$ 5,556	\$ 5,556	\$ 5,556	\$ 5,556	\$ 5,556	\$ 5,556
		\$ 11,818,819	\$ -	\$ -	\$ -	\$ 116,667	\$ 116,667	\$ 116,668	\$ 116,667	\$ 116,667	\$ 116,668
Contracted Costs											
	SME/RFP Development	\$ 250,000	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	IV&V Contractors	\$ 530,000	\$ 30,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ 14,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
		\$ 7,290,806	\$ 294,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	<b>Start up Totals</b>	<b>\$ 28,714,408</b>	<b>\$ 334,991</b>	<b>\$ 40,991</b>	<b>\$ 40,991</b>	<b>\$ 167,506</b>	<b>\$ 167,506</b>	<b>\$ 167,507</b>	<b>\$ 167,506</b>	<b>\$ 167,506</b>	<b>\$ 167,507</b>
				Fiscal Qtr	\$ 416,973		Fiscal Qtr	\$ 502,520		Fiscal Qtr	\$ 502,520



**California WIC**

**Transfer of WIC System**

**Summary Budget**

**One-Time Costs**

			Infrastructure and Requirements								
<b>Start Up Costs-Executing Phase</b>			FFY 2016 Q2			FFY 2016 Q3			FFY 2016 Q4		
			Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16
Staff State Costs											
	Staff	\$ 8,611,487	\$ 45,674	\$ 45,674	\$ 45,674	\$ 47,074	\$ 47,074	\$ 47,074	\$ 104,674	\$ 113,914	\$ 144,634
	Travel (Executing)	\$ 415,330	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813
	Miscellaneous (Procurement-CalTech)	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 2,334	\$ 2,334	\$ 2,334	\$ 2,404	\$ 2,404	\$ 2,404	\$ 5,284	\$ 5,746	\$ 7,282
		\$ 9,604,783	\$ 49,022	\$ 49,022	\$ 49,022	\$ 50,492	\$ 50,492	\$ 50,492	\$ 110,972	\$ 120,674	\$ 152,930
Infrastructure											
	Processors	\$ 5,330,809	\$ -	\$ -	\$ -	\$ -	\$ 1,800	\$ 8,116	\$ 8,116	\$ 8,116	\$ 8,116
	Software licenses	\$ 1,716,000	\$ -	\$ -	\$ -	\$ -	\$ 94,000	\$ -	\$ -	\$ -	\$ -
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111
	Indirect	\$ 562,801	\$ 5,556	\$ 5,556	\$ 5,556	\$ 5,556	\$ 10,346	\$ 5,961	\$ 5,961	\$ 5,961	\$ 5,961
		\$ 11,818,819	\$ 116,667	\$ 116,667	\$ 116,667	\$ 116,667	\$ 217,257	\$ 125,188	\$ 125,188	\$ 125,188	\$ 125,188
Contracted Costs											
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ -	\$ -	\$ -	\$ 65,500	\$ 65,500	\$ 140,500	\$ 91,000	\$ 91,000	\$ 91,000
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ -	\$ -	\$ -	\$ 28,275	\$ 3,275	\$ 7,025	\$ 4,550	\$ 4,550	\$ 4,550
		\$ 7,290,806	\$ -	\$ -	\$ -	\$ 593,775	\$ 68,775	\$ 147,525	\$ 95,550	\$ 95,550	\$ 95,550
	Start up Totals	\$ 28,714,408	\$ 165,688	\$ 165,688	\$ 165,688	\$ 760,933	\$ 336,523	\$ 323,205	\$ 331,710	\$ 341,412	\$ 373,668
				Fiscal Qtr	\$ 497,065		Fiscal Qtr	\$ 1,420,661		Fiscal Qtr	\$ 1,046,790

**California WIC**

**Transfer of WIC System**

**Summary Budget**

**One-Time Costs**

			Design, Develop, Test							
<b>Start Up Costs-Executing Phase</b>			FFY 2017 Q1			FFY 2017 Q2			FFY 2017 Q3	
			Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17	Apr-17	May-17
Staff State Costs										
	Staff	\$ 8,611,487	\$ 144,634	\$ 56,314	\$ 87,034	\$ 111,634	\$ 80,914	\$ 111,634	\$ 103,534	\$ 141,934
	Travel (Executing)	\$ 415,330	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813	\$ 813
	Miscellaneous (Procurement-CalTech)	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 7,282	\$ 2,866	\$ 4,402	\$ 5,632	\$ 4,096	\$ 5,632	\$ 5,227	\$ 7,147
		\$ 9,604,783	\$ 152,930	\$ 60,194	\$ 92,450	\$ 118,280	\$ 86,024	\$ 118,280	\$ 109,775	\$ 150,095
Infrastructure										
	Processors	\$ 5,330,809	\$ 12,316	\$ 26,253	\$ 26,253	\$ 26,253	\$ 26,253	\$ 26,253	\$ 31,653	\$ 66,656
	Software licenses	\$ 1,716,000	\$ 188,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 188,000	\$ 22,000
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 111,111	\$ 269,984	\$ 112,684
	Indirect	\$ 562,801	\$ 15,571	\$ 6,868	\$ 6,868	\$ 6,868	\$ 6,868	\$ 6,868	\$ 24,482	\$ 10,067
		\$ 11,818,819	\$ 326,998	\$ 144,232	\$ 144,232	\$ 144,232	\$ 144,232	\$ 144,232	\$ 514,119	\$ 211,407
Contracted Costs										
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -
	DDI Contractor	\$ 5,663,625	\$ 166,000	\$ 166,000	\$ 236,500	\$ 236,500	\$ 161,500	\$ 248,500	\$ 215,500	\$ 215,500
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 250,000	\$ -
	Indirect (5%)	\$ 347,181	\$ 8,300	\$ 8,300	\$ 11,825	\$ 11,825	\$ 8,075	\$ 12,425	\$ 35,775	\$ 10,775
		\$ 7,290,806	\$ 174,300	\$ 174,300	\$ 248,325	\$ 248,325	\$ 169,575	\$ 260,925	\$ 751,275	\$ 226,275
	<b>Start up Totals</b>	<b>\$ 28,714,408</b>	<b>\$ 654,228</b>	<b>\$ 378,726</b>	<b>\$ 485,007</b>	<b>\$ 510,837</b>	<b>\$ 399,831</b>	<b>\$ 523,437</b>	<b>\$ 1,375,169</b>	<b>\$ 587,777</b>
				Fiscal Qtr	\$ 1,517,961		Fiscal Qtr	\$ 1,434,105		Fiscal Qtr

**California WIC  
Transfer of WIC System**

Summary Budget  
One-Time Costs

							Pilot Operations			
Start Up Costs-Executing Phase			FFY 2017 Q4				FFY 2018 Q1			
			Jun-17	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18
Staff State Costs										
	Staff	\$ 8,611,487	\$ 303,991	\$ 270,115	\$ 273,955	\$ 281,815	\$ 216,295	\$ 219,495	\$ 216,295	\$ 219,495
	Travel (Executing)	\$ 415,330	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283
	Miscellaneous (Procurement-CalTech)	\$ 40,000	\$ -	\$ -						
	Miscellaneous (Executing)	\$ 82,500	\$ 22,700	\$ 22,700	\$ 22,700	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 16,949	\$ 15,255	\$ 15,447	\$ 14,715	\$ 11,439	\$ 11,599	\$ 11,439	\$ 11,599
		\$ 9,604,783	\$ 355,923	\$ 320,353	\$ 324,385	\$ 309,013	\$ 240,217	\$ 243,577	\$ 240,217	\$ 243,577
Infrastructure										
	Processors	\$ 5,330,809	\$ 66,656	\$ 87,956	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967
	Software licenses	\$ 1,716,000	\$ -	\$ 564,000	\$ -	\$ -	\$ 44,000	\$ -	\$ -	\$ -
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ 112,684	\$ 112,684	\$ 112,684	\$ 112,684	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573
	Indirect	\$ 562,801	\$ 8,967	\$ 38,232	\$ 14,083	\$ 14,083	\$ 10,727	\$ 8,527	\$ 8,527	\$ 8,527
		\$ 11,818,819	\$ 188,307	\$ 802,872	\$ 295,734	\$ 295,734	\$ 225,267	\$ 179,067	\$ 179,067	\$ 179,067
Contracted Costs										
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ 178,000	\$ 213,750	\$ 138,054	\$ 160,875	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ 8,900	\$ 10,688	\$ 6,903	\$ 8,044	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153
		\$ 7,290,806	\$ 186,900	\$ 224,438	\$ 144,956	\$ 168,919	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206
	Start up Totals	\$ 28,714,408	\$ 731,130	\$ 1,347,663	\$ 765,075	\$ 773,666	\$ 573,691	\$ 530,851	\$ 527,491	\$ 530,851
			\$ 2,694,075		Fiscal Qtr	\$ 2,886,404		Fiscal Qtr	\$ 1,632,032	

**California WIC  
Transfer of WIC System**

**Summary Budget**

**One-Time Costs**

**Start Up Costs-Executing Phase**

			FFY 2018 Q2		FFY 2018 Q3			FFY 2018 Q4			
			Feb-18	Mar-18	Apr-18	May-18	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18
Staff State Costs											
	Staff	\$ 8,611,487	\$ 183,445	\$ 183,445	\$ 185,470	\$ 185,470	\$ 185,470	\$ 173,770	\$ 171,745	\$ 171,745	\$ 166,245
	Travel (Executing)	\$ 415,330	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283
	Miscellaneous (Procurement-CalTech)	\$ 40,000									
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 9,796	\$ 9,796	\$ 9,898	\$ 9,898	\$ 9,898	\$ 9,313	\$ 9,211	\$ 9,211	\$ 8,936
		\$ 9,604,783	\$ 205,725	\$ 205,725	\$ 207,851	\$ 207,851	\$ 207,851	\$ 195,566	\$ 193,440	\$ 193,440	\$ 187,665
Infrastructure											
	Processors	\$ 5,330,809	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967
	Software licenses	\$ 1,716,000	\$ -	\$ -	\$ 44,000	\$ 22,000	\$ -	\$ 132,000	\$ -	\$ -	\$ 44,000
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573
	Indirect	\$ 562,801	\$ 8,527	\$ 8,527	\$ 10,727	\$ 9,627	\$ 8,527	\$ 15,127	\$ 8,527	\$ 8,527	\$ 10,727
		\$ 11,818,819	\$ 179,067	\$ 179,067	\$ 225,267	\$ 202,167	\$ 179,067	\$ 317,667	\$ 179,067	\$ 179,067	\$ 225,267
Contracted Costs											
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153
		\$ 7,290,806	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206
	Start up Totals	\$ 28,714,408	\$ 492,998	\$ 492,998	\$ 541,324	\$ 518,224	\$ 495,124	\$ 621,439	\$ 480,713	\$ 480,713	\$ 521,138
			Fiscal Qtr	\$ 1,516,847		Fiscal Qtr	\$ 1,554,673		Fiscal Qtr	\$ 1,582,866	

**California WIC  
Transfer of WIC System**

Summary Budget  
One-Time Costs

			State Wide Rollout								
Start Up Costs-Executing Phase			FFY 2019 Q1		FFY 2019 Q2			FFY 2019 Q3			
			Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19
Staff State Costs											
	Staff	\$ 8,611,487	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677
	Travel (Executing)	\$ 415,330	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283	\$ 12,283
	Miscellaneous (Procurement-CalTech)	\$ 40,000									
	Miscellaneous (Executing)	\$ 82,500	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
	Indirect (Executing)	\$ 455,466	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,208
		\$ 9,604,783	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368	\$ 193,368
Infrastructure											
	Processors	\$ 5,330,809	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967
	Software licenses	\$ 1,716,000	\$ -	\$ -	\$ 132,000	\$ -	\$ -	\$ 44,000	\$ 22,000	\$ -	\$ 132,000
	Telecommunications	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573
	Indirect	\$ 562,801	\$ 8,527	\$ 8,527	\$ 15,127	\$ 8,527	\$ 8,527	\$ 10,727	\$ 9,627	\$ 8,527	\$ 15,127
		\$ 11,818,819	\$ 179,067	\$ 179,067	\$ 317,667	\$ 179,067	\$ 179,067	\$ 225,267	\$ 202,167	\$ 179,067	\$ 317,667
Contracted Costs											
	SME/RFP Development	\$ 250,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	QA Contractor	\$ 500,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	DDI Contractor	\$ 5,663,625	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054
	IV&V Contractors	\$ 530,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Indirect (5%)	\$ 347,181	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153
		\$ 7,290,806	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206
	Start up Totals	\$ 28,714,408	\$ 480,641	\$ 480,641	\$ 619,241	\$ 480,641	\$ 480,641	\$ 526,841	\$ 503,741	\$ 480,641	\$ 619,241
			Fiscal Qtr	\$ 1,482,421		Fiscal Qtr	\$ 1,580,524		Fiscal Qtr	\$ 1,511,224	

California WIC							
Transfer of WIC System							
Summary Budget							
One-Time Costs							
Start Up Costs-Executing Phase			FFY 2019 Q4		FFY 2020 Q1		
Staff State Costs			Aug-19	Sep-19	Oct-19	Nov-19	Dec-19
Staff	\$ 8,611,487		\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677	\$ 171,677
Travel (Executing)	\$ 415,330		\$ 12,283	\$ 12,283	\$ 12,283	\$ 11,671	\$ 11,671
Miscellaneous (Procurement-CalTech)	\$ 40,000						
Miscellaneous (Executing)	\$ 82,500		\$ 200	\$ 200	\$ 200	\$ 200	\$ 200
Indirect (Executing)	\$ 455,466		\$ 9,208	\$ 9,208	\$ 9,208	\$ 9,177	\$ 9,177
	\$ 9,604,783		\$ 193,368	\$ 193,368	\$ 193,368	\$ 192,725	\$ 192,725
Infrastructure							
Processors	\$ 5,330,809		\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967	\$ 168,967
Software licenses	\$ 1,716,000		\$ -	\$ -	\$ 44,000	\$ -	\$ -
Telecommunications	\$ -		\$ -	\$ -	\$ -	\$ -	\$ -
Clinic (Including \$4,000,000 to replace local workstations)	\$ 4,209,209		\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573	\$ 1,573
Indirect	\$ 562,801		\$ 8,527	\$ 8,527	\$ 10,727	\$ 8,527	\$ 8,527
	\$ 11,818,819		\$ 179,067	\$ 179,067	\$ 225,267	\$ 179,067	\$ 179,067
Contracted Costs							
SME/RFP Development	\$ 250,000		\$ -	\$ -	\$ -	\$ -	\$ -
QA Contractor	\$ 500,000		\$ -	\$ -	\$ -	\$ -	\$ -
DDI Contractor	\$ 5,663,625		\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054	\$ 103,054
IV&V Contractors	\$ 530,000		\$ -	\$ -	\$ -	\$ -	\$ -
Indirect (5%)	\$ 347,181		\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153	\$ 5,153
	\$ 7,290,806		\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206	\$ 108,206
Start up Totals	\$ 28,714,408		\$ 480,641	\$ 480,641	\$ 526,841	\$ 479,998	\$ 479,998
			Fiscal Qtr	\$ 1,580,524		Fiscal Qtr	\$ 1,486,837

## **Appendix L**

### **Alternatives Schedules**

## Alternatives Schedules

The following are high-level estimates of the duration of time needed for each stage of planning and implementation for each of the four alternatives presented.

Key Tasks/ Milestones	Primary Resources (Staff)	Transfer	Status Quo	Modification	Build
<b>Planning Phase</b>					
IAPD Development <i>*decision point: will the State implement, operate, and/ or maintain the system in house or contract? Which transfer system will be selected? Which operational approach will be used?</i>	State or Contracted, FNS Approval	23	18	18	18
FSR Development	State, State Approval	20	10	10	10
RFP Development/ Evaluation Methodology	State or Contracted, FNS Approval	14	5	5	12
RFP Release	State	1	1	1	1
Vendor Proposals	Bidders	6	2	2	2
Contract	State, FNS Approval	5	2	2	2
<b>Total Planning Phase (in months)</b>		<b>69</b>	<b>38</b>	<b>38</b>	<b>45</b>
<b>Implementation Phase</b>					
<b>Design</b>					
Project Initiation	State or Contractor	6	4	18	24
Final Work plan	State or Contractor				
Planning Documents	State or Contractor				
Gap Analysis <i>*decision point: will additional modifications be required through the established change control process?</i>	State and Contractor, if applicable				
System Requirements and Design Documents	State or Contractor				
<b>Development</b>					
Business Process Review/ Policy Adjustment	State	12	24	75	24

System Modification, Technical Testing, and Revisions	State or Contractor				
Site Readiness Checklists	State or Contractor				
Equipment Procurement (Pilot)	State, Local Agencies				
Operational Planning, Documentation, and Training Materials	State or Contractor				
Data Conversion <sup>1</sup>	State or Contractor				
Central Operations Preparation	State or Contractor				
User Acceptance Testing <i>*Decision point: proceed to pilot only if UAT performance criteria have been achieved.</i>	State or Contractor				
<b>Pilot Operations</b>					
Training (Central Office-IT)	State or Contractor				
Training (Pilot Clinic and State)	State or Contractor				
System Pilot Test	State or Contractor				
Pilot Evaluation and System Modification/Retesting <i>*Decision point: proceed to rollout only if pilot performance criteria have been achieved.</i>	State or Contractor	5	8	12	6
<b>Statewide Rollout</b>					
Equipment Procurement (Statewide)	State, Local Agencies				
Statewide Training	State or Contractor	22	3	6	9
System Rollout	State or Contractor				
System Documentation	State or Contractor				
<b>Total Implementation Phase (in months)</b>		<b>45</b>	<b>39</b>	<b>111</b>	<b>63</b>

<sup>1</sup> Data conversion will be tested during the development phase, but will also take place as part of pilot and rollout activities.

<b>Total Project Time (Planning and Implementation)</b>		<b>114</b>	<b>77</b>	<b>149</b>	<b>108</b>
<b>Maintenance</b>					
Initial 1 Year Warranty	Contractor, if applicable	1 year	N/A	N/A	1 year
Extended Warranties	Contractor, if applicable	1 year each, up to 3 years	N/A	N/A	1 year each, up to 3 years

## **Appendix M**

### **Supplemental and Non-Integrated Data Repositories**

## Supplemental and Non-Integrated Data Repositories

To carry out business processes, store and report on data, staff has created many supplemental and non-integrated data repositories. Some Local Agencies and Functional Areas have programmed their own applications while others make do with a piece of paper and a pen. As of March 2010 it is estimated the CA WIC uses 790 Access Database files holding 16,915,496,960 bytes of data. Below is a listing of some of the data repositories currently in use.

<b><u>Name</u></b>	<b><u>Purpose</u></b>	<b><u>Functional Area</u></b>	<b><u>Type</u></b>
Agency Contact Sheets	Most current contact information	All	Word documents saved
Annual Program Evaluation Schedule	Monitoring	Policy	Excel Spreadsheets
Automated Procurement and Inventory System (APIS)	Purchase Order/Service Order/Contract – expenditure tracking	FMRB/Budget and Accounting Section	Access Database
Approve/Deny Letters	Documentation	Training	Word documents Paper File
Approved Product List	Post online, Brochures	Nutrition Education	Excel Spreadsheet
Authorization to Spend Letter (ATS)	Cover letter for Authorization to Spend funds to Local Agencies	FMRB/Local Agency Fiscal Section	Word documents
Authorization to Spend Spreadsheet	Track ATS to Local Agency	FMRB/Local Agency Fiscal Section	Excel Spreadsheet
Breastfeeding Peer Counseling	Data Collection for Case Management	Local Agencies	Created External Web based System
Breastfeeding Peer Counseling	Data Collection for Case Management	Local Agencies	Access Database
Commodity Food Supplemental Program List	A paper list is provided monthly for staff to manually check with certifying new participants to ensure there is no dual enrollment	Local Agencies	Paper
Collections	Determination and Receipt	Program Integrity	Spreadsheet
Contracts/Purchase Orders	Physical Copies of Contracts/Purchase Orders to send to Accounting for Payment of Invoices	FMRB/Budget and Accounting Section	Paper Files
Daily Logs	Collect and store all paper documentation for use in Program Evaluation efforts	Local Agencies	Paper Files
Extranet	Reporting	All	Access Database

Farmers Market Nutrition Program	Benefit Reconciliation	Local Agency Admin	Access Database
Food Code/ISIS Spreadsheet	Food Fund Reconciliation	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Food Forecast Model	Forecast Food Expenditures	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Food Group Databases (12)	Comprehensive Food Item Lists, Prepare for EBT	Nutrition Education	Access Database
Grant Forecast	Forecast of Grant Funding	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Grocer/Bank Reimbursement	Track payment to grocer or bank	FMRB/Fiscal Forecasting Section	Access Database
Inventory	Monitor Local Agency Inventory	Local Agencies	Excel Spreadsheet
Inventory	Where inventory is (check stock, Breast pumps, etc.)	Local Agencies	Paper documents, Excel Spreadsheets or Databases depending on what each LA has created
ISIS record review problem summary reports	Monitoring	Policy	Excel Spreadsheets
ISIS record review results	Monitoring	Policy	Excel Spreadsheets
Legislative bill analyses	Program Administration	Policy	Word Documents
Local Agency Contracts	Budget/Expenditure tracking	FMRB/Local Agency Fiscal Section	Paper Files
Local Agency Expenditures	Track Local Agency Expenditures	FMRB/Local Agency Fiscal Section	Excel Spreadsheet
Local Agency Files	Invoices	Local Agency Admin	Paper File
Local Agency Files	Monitoring	Policy	Paper File
Local Agency Files	Monitoring	Program Integrity	Paper File
Local Agency Inventory System (LAIS)	"What we have" at a high level	Local Agencies	Created External Web based System
MADR Spreadsheet	Analysis of MADR Rates	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
MADR Tracking	Track MADRs	FMRB/Fiscal Forecasting Section	Access Database
Microsoft SQL			
Policy development and PWPC	WIC Program Manual	Policy	Word Documents
Pre- and Post-Program Evaluation related forms	Monitoring	Policy	Word Documents
Program Evaluation final reports (LOF)	Monitoring	Policy	Word Documents
Purchase Order/ Contract Spreadsheets (Various)	Spreadsheets to track individual Purchase Orders/Contract Encumbrances and Expenditures	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Rebate Spreadsheet	Rebate Fund Reconciliation	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Redemption Database	Track Food Redemptions	FMRB/Fiscal Forecasting Section	Access Database

Referral Lists	Each Local Agency has a list of local referrals and is limited to the entry of 32 in ISIS.	Local Agencies	Unknown
Rejected FIs	Track food instruments for reconsideration and redemption amounts	Training	Access Database
Rejected FIs	Record food instrument payment	Training	Excel Spreadsheets
Return Letters	Track FIs sent back to vendors	Training	Word documents
STO/CORE Spreadsheet	Daily Food Expenditure Reconciliation	FMRB/Fiscal Forecasting Section	Excel Spreadsheet
Therapeutic Formula	A binder with all requests and supporting documentation for each applicable participant.	Local Agencies	Paper, Binder
Training Data	Document Training attendance	Training	Access Database
UPC Database	Comprehensive Food Item List, Prepare for EBT	Nutrition Education	Access Database
Vendor Correspondence	Training Correspondence	Training	Word documents
Vendor Correspondence	Documentation	Training	Word documents saved
Vendor Correspondence	Documentation	Vendor Management	Unknown
Vendor Files	Monitoring documentation	Program Integrity	Paper File
Vendor Files	Contract documentation	Vendor Management	Paper File
Vendor Price Analysis System (VPA)		Vendor Management	Access Database

## **Appendix C**

### **California Feasibility Study Report**

## **California Feasibility Study Report**

The California Feasibility Study Report (FSR) is a State required document for approving projects. The FSR establishes the business case for investment of state resources by setting out the reasons for undertaking the project and analyzing its costs and benefits. The components of the FSR are very similar to that of the IAPD with some additional components and detail. An FSR, prepared in accordance with SAM Section 4928, must be approved for every information technology project prior to the encumbrance or expenditure of funds on the project, including the use of staff resources, beyond the feasibility study stage. The only exceptions to this requirement is that the feasibility studies for projects whose costs fall below a specified level may be documented by means of a Project Summary Package (see SAM Section 4930 and SIMM Section 20). Agencies are required to follow prescribed instructions for preparing and submitting the FSR. Projects subject to approval by the Technology Agency (non-delegated projects) require submission of an FSR to the Technology Agency and to the Office of the Legislative Analyst. In addition, the FSR must be submitted to the Department of General Services when the contract total exceeds the agency's delegated purchasing authority.

Overall, the California FSR provides a basis for understanding and agreement among project management, program management and executive management, as well as state-level control agencies. The FSR provides a summary of the results of the feasibility study and, as such, should be prepared at a level of detail commensurate with the scope and complexity of the proposed technical solution. Sufficient technical detail is required to be included in the FSR to demonstrate that the proposed solution to the business problem or opportunity is realistic.

In relationship to the California WIC MIS project, the FSR may be an additional required document that will be prepared by the State WIC staff and will be submitted for approval upon approval from FNS. It is possible that the State of California may accept the IAPD in lieu of the FSR or and IAPD with amendments that satisfy specific FSR components.

The FSR is not a document required by FNS and its development is separate but tandem to the development and submission of the California Feasibility Study, Alternatives Analysis and Cost Benefit Analysis and IAPD prepared for FNS' review and approval. Both the FNS documents and the California FSR will need to be approved by the respective governing bodies before California WIC can move forward to the next stage of the MIS project.

## **Appendix D**

### **Transfer Budget Detailed**

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## General Assumptions

- California will transfer and implement an available MIS system with modifications
- The transfer system will include base functionality as detailed within the FReD. Additional functionality to be added to the base system as detailed in the CA functional requirements.
- Implementation support such as system modification and configuration, training, QA, testing, and conversion will be outsourced. The State will provide oversight, project management and support as needed.
- The transfer system will be operated in a state data center; basic system support and maintenance (i.e. system monitoring, system and database administration, site support, etc) will be provided by State staff.
- The existing California telecommunications infrastructure is adequate for transfer system operations. This will be operated by the State.
- The estimated transfer budget starts with hiring of support contractor and concludes after state-wide rollout.
- Cost for equipment is based upon current California data center costs for hardware.
- Infrastructure and Requirements development with the MIS contractor is estimated to start April 1, 2016.
- The project's estimated duration from infrastructure and requirements development to statewide roll out is 45 months.
- The system will use Oracle for the back-end database. State will purchase Oracle licenses for the project as needed.
- Oracle license cost assumes a 40% discount from standard price of \$30,000 per quad processor.
- The annual Oracle license maintenance costs are estimated at \$5,500 per quad processor.
- The costs for the last month of statewide roll out were used as a base for the development of on-going monthly costs to maintain the system.
- Indirect Costs were calculated using 5% of total costs.
- The DDI contractor costs were reduced by 50% for on-going monthly maintenance.
- It is assumed that there will be 44 Oracle processors at \$5,500 per processor at a total of \$242,000 per year. This equates to \$20,167 monthly Oracle software maintenance costs.

**Key data used in estimating transfer costs**

<b>CA WIC Characteristics</b>	
Local Agencies	84
Local Agency Sites	650
Current System Users	4,480
<b>Implementation activity duration (in months)</b>	
Hardware Procurement & set-up	1
Install & configure Transfer system	1
GAP analysis, requirements defined	2
Design, build and system test	11
Testing and acceptance	3
Train, pilot implementation, evaluation	5
State Wide rollout	22
Total	45
<b>Staff</b>	<b>Hourly Rate<sup>1</sup></b>
Managerial	\$60
Professional (Subject Matter Experts)	\$56
IT Staff	\$54
Clerical	\$15
WIC State Agency Staff	\$45
Local Agency Staff	\$20
<b>Contracted</b>	
Programmer analyst / manager	\$125
Technician / testing	\$110
Call Center / documentation support	\$85
<b>Other</b>	
<b>Travel Cost per day</b>	\$150
<b>Full time equivalence hrs. / mo.</b>	150

<sup>1</sup> The rates presented in the table reflect estimated rates based on current as of December 2011) State of California pay scales and include salary as well as benefits.

## Anticipated Modifications to Transfer System to meet California needs

#	Functional Area	Description
1	Food Packages	Food packages and FIs (each state has a different set up and there is typically some development work here)
2	Nutrition Assessment	Nutrition assessment and care plans (because of VENA everyone does this a little differently, some systems have more flexibility, but even so there's always some strange nuance)
3	Vendor Management	Vendor management (every state handles this area differently, I would anticipate modifications here, in addition the mapping function LC-06)
4	System Configuration	Modification, addition, deletion of data fields to meet state requirements including changes to tables and drop down lists
5	Screen Customization	Screen customization (adding the CA logo), changing the configuration or organization of a screen, or changing screen flow
6	CA specific reports	Reports (always changes here)
7	Scheduler	Scheduler functionality including modifications to calendar templates (CA has so many different kinds of clinics, I have a feeling that no scheduler is going to totally meet their needs)
8	Correspondence	Vendor and participant correspondence templates and letters (always state specific)
9	Security and single sign-on	Security roles and responsibilities and single sign-on
10	System Interfaces	Interfaces (even if the system has a similar interface in another state, it does not mean it will work in CA)
11	Grant/Fund Management	Financial/Grant/Fund Management and Forecasting functionality (F-03-06) -- even if it is in the system like MPSC or Crossroads it will have to be customized to CA
12	Vendor and Participant Portals	Vendor and participant portal (customization if it exists already in the system or development if it doesn't)
13	Data Warehouse ETL	Data warehouse archiving process

## Transfer Budget, Summary

Start Up Costs		Units	unit cost	total	Unit Set-up	Comment or Description
<b>Processing Infrastructure</b>						
<b>Production Environment</b>						
	Database Server	8	\$ 2,755	\$ 16,530	\$ 3,600	4 Primary, 2 back-up DB Server
	App Server	9	\$ 1,895	\$ 17,055	\$ 5,400	6 Primary, 3 back-up App Servers
	Web Server	12	\$ 2,683	\$ 32,196	\$ 7,200	8 Primary, 4 back-up Web Servers
	SAN Storage	1	\$ 24,000	\$ 24,000	\$ -	
	Disaster Recovery - Systems	1	\$ 10,000	\$ 10,000	\$ 4,500	
	Disaster Recovery - Database	1	\$ 775	\$ 775	\$ -	
	Disaster Recovery - Storage	1	\$ 900	\$ 900	\$ -	
	Firewall Extranet	3	\$ 285	\$ 855	\$ 600	
<b>Test / training environment</b>						
	Database Server	2	\$ 3,475	\$ 6,950	\$ 1,200	1 Primary, 1 back-up
	App Server	3	\$ 3,463	\$ 10,389	\$ 1,800	2 Primary, 1 back-up
	Web Server	3	\$ 3,403	\$ 10,209	\$ 1,800	2 Primary, 1 back-up
	SAN	1	\$ 12,000	\$ 12,000	\$ -	
	Firewall Extranet	3	\$ 285	\$ 855	\$ 600	
<b>System Test environment</b>						
	Database Server	2	\$ 2,855	\$ 5,710	\$ 1,200	2 Primary
	App Server	2	\$ 2,773	\$ 5,546	\$ 1,200	2 Primary
	Web Server	2	\$ 3,013	\$ 6,026	\$ 1,200	2 Primary
	Firewall Extranet	3	\$ 285	\$ 855	\$ 600	
<b>Development Environment</b>						
	Database Server	1	\$ 2,680	\$ 2,680	\$ 600	2 Primary
	App Server	1	\$ 2,598	\$ 2,598	\$ 600	2 Primary
	Web Server	1	\$ 2,838	\$ 2,838	\$ 600	2 Primary
<b>Total Processor costs</b>						
				\$ -		
				\$ -		
<b>Software Licenses - Oracle</b>						
	Production	8	\$ 72,000	\$ 432,000		
	UAT/Training	2	\$ 72,000	\$ 144,000		
	System Test	2	\$ 72,000	\$ 144,000		
	Development	1	\$ 72,000	\$ 72,000		
	Annual Maintenance	11	\$ 22,000	\$ 242,000		
<b>State Telecommunications</b>						
		0		\$ -		Assume that California already has the necessary telecomm environment for a WEB based application.
<b>Clinic Infrastructure</b>						
	Signature Pad	715	\$110	\$ 78,850		One per clinic plus 10% extra
	Scanner	715	\$ 110	\$ 78,850		One per clinic plus 10% extra
	MICR printer	0	\$ 1,700	\$ -		Assume existing printers
	PC at every station	0	\$ 1,200	\$ -		Assume existing equipment
	Equipment maintenance	1%	\$ 157,300	\$ 1,573		contracted hardware warranty / maintenance 1% to total cost per month
<b>Telecommunications</b>						
	ISP services	0	\$ 500	\$ -		Assume already exists
	Broad band telecomm	0	\$ 1,000	\$ -		Assume already exists
	Hardware			\$ 1,216,267		
	Monthly Maintenance			\$ 145,573		
	Indirect charges		5.0%	\$ 69,036		
<b>Start up &amp; Implementation costs</b>						

## Transfer Budget, Detail

Service Description	Comp Code	Unit of Measurement	Rate
Windows Standard Server - 2 Processors (4-core processors)/2GB mem/60GB local storage	M101	per server/month	\$ 1,630.00
Windows Standard Server - 4 Processors (4-core processors)/4GB mem/60GB local storage	M102	per server/month	\$ 2,070.00
Additional Memory (per GB)	M105	per GB/month	\$ 15.00
Windows Enterprise Edition	M105	License/month	\$ 47.00
Database Support Tier I	M620	per instance/month	\$ 450.00
Database Support Tier I - One-time Set-up	M621	per instance/one-time	\$ 230.00
Database Support Tier II	M622	per instance/month	\$ 975.00
Database Support Tier II - One-time Set-up	M623	per instance/one-time	\$ 690.00
Dedicated Web Support	I124	per server/month	\$ 848.00
Firewall Extranet/DMZ/Vlan	N606	per dmz/month	\$ 285.00
Firewall Extranet/DMZ/Vlan One-time Set-up	N614	per dmz/one-time	\$ 600.00
Server Load Balancing	N611	per server/month	\$ 175.00
Server Load Balancing One-time Set-up	N613	per instance/one-time	\$ 600.00
Storage	S208	per GB/month	\$ 12.00
Web Analytics	I114	per report/month	\$ 47.53
Open Systems Disaster Recovery Support (up to 5 Servers)	R111	System/month	\$ 3,400.00
Open Systems Disaster Recovery One-Time Set-up Fee	R112	One-Time	\$ 4,500.00
Open Systems Disaster Recovery Database Support	R113	Database Server/Month	\$ 775.00
Open Systems Disaster Recovery Storage Support	R114	200GB/Month	\$ 90.00
Open Systems Disaster Recovery - Additional Server	R115	Server/Month	\$ 300.00

**Infrastructure Costs, Budget Detail**

	Memory GBs	Storage (GBs)	Server Support	Memory	Web Support	Database Support	Load Balancing	Storage	Total Monthly	One-time Set-up
<b>Production Environment</b>										
Database Server	8	60	\$2,070	\$60		\$450	\$175		\$2,755	\$600
App Server	8	60	\$1,630	\$90			\$175		\$1,895	\$600
Web Server	4	60	\$1,630	\$30	\$848		\$175		\$2,683	\$600
SAN		2,000						\$24,000	\$24,000	
DR Support - Systems			\$10,000						\$10,000	\$4,500
DR Support - Database						\$775			\$775	
DR Support - Storage		2,000						\$900	\$900	
Firewall Extranet									\$285	\$600
<b>Acceptance Test/Training Environment</b>										
Database Server	8	60	\$2,070	\$60		\$450	\$175	\$720	\$3,475	\$600
App Server	8	60	\$1,630	\$90	\$848		\$175	\$720	\$3,463	\$600
Web Server	4	60	\$1,630	\$30	\$848		\$175	\$720	\$3,403	\$600
SAN		1,000						\$12,000	\$12,000	
Firewall Extranet									\$285	\$600
<b>System Test Environment</b>										
Database Server	2	50	\$1,630	\$0		\$450	\$175	\$600	\$2,855	\$600

App Server	2	10	\$1,630	\$0	\$848		\$175	\$120	\$2,773	\$600
Web Server	2	30	\$1,630	\$0	\$848		\$175	\$360	\$3,013	\$600
Firewall Extranet									\$285	\$600
<b>Development Environment</b>										
Database Server	2	50	\$1,630	\$0		\$450	\$0	\$600	\$2,680	\$600
App Server	2	10	\$1,630	\$0	\$848		\$0	\$120	\$2,598	\$600
Web Server	2	30	\$1,630	\$0	\$848		\$0	\$360	\$2,838	\$600

## Staff Resource Requirements

### *Description of Staff Resources Needed*

Staff Resource Type	Units (hours)	Unit Cost	Total Needed	Comment or Description
<b>Project Management</b>				
Steering Committee	6000	\$62	\$372,000	Project oversight / direction - 10 hours per month (approximately 8 staff) for a total of 80 hours per month
Project Sponsors	2250	\$62	\$139,500	Liaison between the project and the steering committee, Final acceptance of documents. 2 positions (1 @ 20 hours month, 1 @10 hours a month)
PMO Assistance (PD)	6525	\$68	\$441,816	Data Processing Manager III (DPM III) at .5 FTE from Oct 2013 through December 2019.
PMO Assistance (PM)	13050	\$61	\$800,514	Data Processing Manager II (DPM II) 1 FTE from Oct 2013 through December 2019.
Program PM	13050	\$45	\$587,250	State project manager. Provide overall direction and management of project. 150 hours per month for duration of project
Independent Project Oversight	9634	\$61	\$590,940	Department of Technology State staff from Oct 2014 through Dec 2019.
Policy review & update	2468	\$45	\$111,048	Re-write policy and operation procedures to fit transfer WIC system. Oversee implementation of new policy & procedures in all functional areas. (3 positions) for a total of 1700 hours for all positions for life of the project (1,200 hours design & development, 320 hours pilot, 180 hours rollout)
WIC program	3000	\$56	\$168,000	Technical subject matter expert to support

staff, Technology input and oversight				project manager with systems analysis, architecture, technical implementation advise and oversight. Assume 40 hours per month up through rollout (2 people @20 hours per month).
ITSD staff, Technology input and oversight	1500	\$56	\$84,000	Technical subject matter expert to support project manager with systems analysis, architecture, technical implementation advise and oversight. Assume 20 hours per month up through rollout (2 people @10 per month).
ITSD Manager	1370	\$56	\$76,720	1 person @ 20 hours a month through roll out
Project Assistant	3000	\$15	\$45,000	State Project Assistant. Project will require some general administrative support, database key entry. Assume 40 hours per month for duration of project (1 student)
Local Agency Staff, engaged	1,280	\$20	\$25,600	8 positions, for a total of 1280 hours for the life of the project (960 hours Design & Development, 320 hours pilot)
Travel	398	\$150	\$59,742	2 travel days per local agency (84 LAs) at average of \$150 per day for the project. it is assumed that video conferencing will be utilized for the bulk of training and hardware and technology is already installed and not included in project costs.
Office Supplies	75	\$200	\$15,000	\$200 per month
<b>Software Implementation</b>				
Software analysis & modification planning (GAP analysis)	5120	\$45	\$230,400	State team to work with WIC System Vendor to fully understand its functionality and to decide and document specific changes required for the California implementation: 8 staff for 16 weeks
JAD sessions, prototype evaluation	3840	\$54	\$207,360	Work with contractor to flush out design, iterative evaluation of prototype software 8 staff for 12 weeks

Acceptance testing	6400	\$54	\$345,600	State staff participation in acceptance testing 8 staff for 20 weeks
Documentation review and approval	675	\$56	\$37,800	Review of contractor provided user and system documentation, 1 position @ 15 hours per month
Documentation review and approval	450	\$56	\$25,200	5 hours per month for each project sponsor (10hrs total per month)
Hardware / telecomm install & configuration	5200	\$45	\$234,000	State to Install and configure the computers and telecomm. 8 hours per clinic (650 clinics total). Assumption is that this involves moving from point-to-point lines to updated telecom technology. Currently network and desktop support staff completes rollouts of upgrade technology
<b>Conversion</b>				
Conversion analysis and support - IT Staff	2000	\$54	\$156,774	Conversion activities - Mapping, Testing, Planning in conjunction with a contractor (2,000 hours total). Assume 2 IT staff for conversion mapping and conversion program development for three months (900 hours). Testing - 1 IT staff for 2 months (300 hours). 1 IT staff for UAT testing Support (200 hours). 1 IT staff for pilot and rollout (600 hours).
Conversion analysis and support - WIC Program Staff	1550	\$56	\$86,800	Conversion activities - Mapping, Testing, Planning in conjunction with a contractor (1,550 hours total). Assume 2 State Program staff for conversion mapping for six weeks (450 hours). Testing - 1 State Program staff for 2 months (300 hours). 1 State Program staff for UAT testing Support (200 hours). 1 State Program staff for pilot and rollout (600 hours).
<b>Other Implementation Costs</b>				
Signature Pad Installations	2600	\$45	\$117,000	4 hours per clinic site

Training				
Clinic Staff	147,049	\$20	\$2,940,988	Time required for clinic staff to receive trainings 18 hours per user, 4,480 current users. The assumption is based on CA current requirements for 18 hours of new user training for the current ISIS system
Travel related to Training	2370	\$150	\$355,588	1 trip per clinic, 2 days of travel (650 clinics)
Document Publication	675	\$100	\$67,500	Assume State will produce new policy and training manuals - 1 per clinic (650 total) and 25 for state office. (675 total manuals at \$100 each)
Help Desk Staff Training	256	\$45	\$11,520	State and operations staff receives knowledge transfer. 32 hours per staff member (8 staff)
WIC IT Staff Training	288	\$54	\$15,552	IT WIC Maintenance Staff receive knowledge transfer. 32 hours per staff member (9 staff)
ITSD Staff Training	576	\$54	\$31,104	ITSD staff receives knowledge transfer. 32 hours per staff member (18 staff)
Help Desk Support during Pilot and Rollout	16200	\$45	\$729,000	Additional support beyond what is currently being provided (get over learning curve) 60 hours per month for duration of the project.
<b>SUBTOTAL</b>	<b>252,479</b>		<b>\$8,718,506</b>	
Indirect Charges		5%	\$455,466	
<b>TOTAL COSTS</b>			<b>\$9,154,431</b>	

### **On-going Maintenance and Operations**

The on-going maintenance and operations (M&O) costs outlined in the following pages and included in the IAPD are assumed to be the estimated costs for the first 1 – 3 years

of the life of the new system. During this window it is assumed the State will be under the warranty period. The hours estimated for State staff are based on the assumption that the on-going M&O of the system during this initial period will be supported by both State staff and the MIS vendor. Therefore, State staff hours are estimated at a minimal level.

The staff hours estimated for project management activities are assumed to be after implementation is complete. It is expected that the State project manager will need to continue project management activities to coordinate the MIS vendor and State IT staff system support, reviews to ensure the transfer system is in compliance with State requirements, and other activities that ensure the transfer system is meeting CA WICs program needs.

On-going M&O costs for the system after the initial warranty period have not been included as there are several unknowns that will have to be determined by the State before those estimates can be appropriately assumed. Some of the key decisions that will have to be made include:

- What system will be transferred;
- Length of the warranty period;
- Will on-going M&O be brought in-house or continued to be outsourced after implementation; and
- If on-going M&O are brought in-house, what level of support is needed from WIC IT staff and from ITSD.

The list above is not an exhaustive list of decisions that will impact the on-going M&O costs of the transfer system, but are critical decision points that will dictate the State's ability to estimate these costs. Although annual on-going M&O costs for the life of the system cannot be confidently estimated at this time, based on the analysis conducted during the completion of the IAPD and its supporting documents, the data indicates that the on-going M&O costs of the transfer system will be affordable within CA WIC's current NSA grant. CA WIC is confident that the on-going M&O costs of the transfer system itself will be less than the on-going M&O costs of the current systems (ISIS, VWIX, and Extranet).

*See Section 8.8 of the IAPD and Appendix G: On-going Annual Systems Costs for more detail.*

## **Appendix G**

### **Replacement MIS, Estimated Ongoing Maintenance and Operations Costs**

## **Replacement MIS, Estimated Ongoing Maintenance and Operations Costs**

The cost to maintain a Transfer system in California was estimated below. This estimate was based on known costs of modern systems. These costs are estimated for the first one to three years post implementation.

Estimated Annual New System Costs: \$7,246,360-\$8,613,360

### **Transfer System**

	Monthly Costs	Annual Costs
<b>Transfer System</b>		
State Costs		\$421,920
Staff*	\$33,931	
Travel	\$300	
Miscellaneous	\$200	
Indirect (@ 5%)	\$1,722	
Infrastructure		\$2,576,004
IT Hardware	\$168,967	
Hardware/Software Costs & Licensing	\$12,500	
Oracle Software Maintenance	\$20,167	
Telecommunications	-	
Clinic Equipment Maintenance	\$1,573	
Indirect (@ 5%)	\$9,535	
Contracted Costs		\$548,436
DDI Contractor (1-3 years post project)	\$43,527	
Indirect (@ 5%)	\$2,176	
<b>Total Transfer/New System Costs</b>		<b>\$3,546,360</b>
Food Instrument (FI) Check Processing Contract		\$3,700,000
<b>Total Estimated Annual New System Cost</b>		<b>\$7,246,360</b>

\*See Detail of Staff costs at the end of this document

### **Overhead**

Overhead may increase with IT consolidation however the cost of staff should decrease to the amount listed above with the redirection of staff.

	Annual Costs
<b>Departmental Overhead</b>	
Enterprise IT Allocation	\$80,000
Shared Infrastructure Charges	\$405,000
ITSD Operational Expenses	\$801,000
Department Overhead (SWCAP)	\$81,000
<b>Total Departmental Overhead</b>	<b>\$1,367,000</b>

\*Staff Cost Detail

		Units	unit cost	total
<b>Project Management</b>				
Steering Committee / oversight		0	\$62	\$ -
Project Sponsors		0	\$62	\$ -
Project management		150	\$45	\$6,750
Policy review and update		20	\$45	\$900
WIC program staff Technology input and oversight		30	\$56	\$1,680
ITSD Technology management and oversight		10	\$56	\$560
ITSD Manager		10	\$56	\$560
Project assistant		0	\$15	\$ -
Local agency staff		0	\$20	\$ -
Travel		8	\$150	\$1,200
Office supplies		1	\$200	\$200
<b>Software Releases</b>				
Ops monitoring & Software analysis		100	\$45	\$4,500
Enhancements - Analysis, JAD sessions, Design review & evaluation		100	\$54	\$5,400
Acceptance testing - product releases		100	\$54	\$5,400
Documentation review and approval		25	\$56	\$1,400
<b>Implementation Costs</b>				
<b>Training</b>				
	Clinic staff	100	\$20	\$2,000
	Travel related to training	0	\$150	\$ -
	Document publication	10	\$100	\$1,000
	Help Desk staff training	5	\$45	\$225
	IT WIC Maintenance Staff	5	\$54	\$270
	ITSD Ops and support staff training	5	\$54	\$270
		679		\$32,315
	Indirect charges		5.0%	\$1,616
	<b>On -going Maintenance - State Costs</b>			<b>\$33,931</b>

**EXISTING SYSTEM/BASELINE COST WORKSHEET**

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/03/2014

Project: Women, Infants, and Children (WIC) Management Information System (eWIC MIS)

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		SUBTOTAL	
	PYs	Amts												
<b>Continuing Information</b>														
<b>Technology Costs</b>														
Staff (salaries & benefits)	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	239.7	23,958,000
Hardware Lease/Maintenance		0		0		0		0		0		0		0
Software Maintenance/Licenses		230,000		230,000		230,000		230,000		230,000		230,000		1,380,000
Contract Services		0		0		0		0		0		0		0
Data Center Services		9,436,560		9,436,560		9,436,560		9,436,560		9,436,560		9,436,560		56,619,360
Agency Facilities		0		0		0		0		0		0		0
Other		1,367,000		1,367,000		1,367,000		1,367,000		1,367,000		1,367,000		8,202,000
<b>Total IT Costs</b>	<b>40.0</b>	<b>15,026,560</b>	<b>239.7</b>	<b>90,159,360</b>										
<b>Continuing Program Costs:</b>														
Staff (State)	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	690.0	64,832,400
Other (Local Agency)		374,138,384.4		374,138,384.4		374,138,384.4		374,138,384.4		374,138,384.4		374,138,384.4		2,244,830,306
<b>Total Program Costs</b>	<b>115.0</b>	<b>384,943,784</b>	<b>690.0</b>	<b>2,309,662,706</b>										
<b>TOTAL EXISTING SYSTEM COSTS</b>	<b>155.0</b>	<b>399,970,344</b>	<b>929.7</b>	<b>2,399,822,066</b>										

**EXISTING SYSTEM/BASELINE COST WORKSHEET**

All costs to be shown in whole (unrounded) dollars.

Date Prepared: 10/03/2014

SIMM 20C30C, Rev. 08/2010  
 Department: Public Health

Project: Women, Infants, and Children (WIC) Management Information System (eWIC MIS)

	Subtotal		FY 2019/20		FY 2020/21		FY 2021/22		FY 2022/23		FY 2023/24		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing Information</b>														
<b>Technology Costs</b>														
Staff (salaries & benefits)	239.7	23,958,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	40.0	3,993,000	439.5	43,923,000
Hardware Lease/Maintenance		0		0		0		0		0		0		0
Software Maintenance/Licenses		1,380,000		230,000		230,000		230,000		230,000		230,000		2,530,000
Contract Services		0		0		0		0		0		0		0
Data Center Services		56,619,360		9,436,560		9,436,560		9,436,560		9,436,560		9,436,560		103,802,160
Agency Facilities		0		0		0		0		0		0		0
Other		8,202,000		1,367,000		1,367,000		1,367,000		1,367,000		1,367,000		15,037,000
<b>Total IT Costs</b>	<b>239.7</b>	<b>90,159,360</b>	<b>40.0</b>	<b>15,026,560</b>	<b>40.0</b>	<b>15,026,560</b>	<b>40.0</b>	<b>15,026,560</b>	<b>40.0</b>	<b>15,026,560</b>	<b>40</b>	<b>15,026,560</b>	<b>439.5</b>	<b>165,292,160</b>
<b>Continuing Program Costs:</b>														
Staff	690.0	64,832,400	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	115.0	10,805,400.0	1,265.0	118,859,400
Other		2,244,830,306		374,138,384.4		374,138,384.4		374,138,384.4		374,138,384.4		374,138,384.4		4,115,522,228
<b>Total Program Costs</b>	<b>690.0</b>	<b>2,309,662,706</b>	<b>115.0</b>	<b>384,943,784</b>	<b>115.0</b>	<b>384,943,784</b>	<b>115.0</b>	<b>384,943,784</b>	<b>115.0</b>	<b>384,943,784</b>	<b>115</b>	<b>384,943,784</b>	<b>1,265.0</b>	<b>4,234,381,628</b>
<b>TOTAL EXISTING SYSTEM COST</b>	<b>929.7</b>	<b>2,399,822,066</b>	<b>155.0</b>	<b>399,970,344</b>	<b>155.0</b>	<b>399,970,344</b>	<b>155.0</b>	<b>399,970,344</b>	<b>155.0</b>	<b>399,970,344</b>	<b>155</b>	<b>399,970,344</b>	<b>1,704.5</b>	<b>4,399,673,788</b>













SIMM 20C30C, Rev. 08/2010

**PROJECT FUNDING PLAN**

Department: Public Health

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/03/2014

Project: Women, Infants, and Children (WIC) Management Information System (eWIC MIS)

	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
<b>TOTAL PROJECT COSTS</b>	<b>3.0</b>	<b>349,463</b>	<b>4.0</b>	<b>1,938,533</b>	<b>4.0</b>	<b>2,634,054</b>	<b>18.0</b>	<b>7,497,051</b>	<b>22.7</b>	<b>6,856,917</b>	<b>27.3</b>	<b>6,567,554</b>	<b>79.0</b>	<b>25,843,573</b>
RESOURCES TO BE REDIRECTED														
Staff	3.0	326,650	4.0	435,533	4.0	439,733	18.0	1,918,309	22.7	1,848,688	27.3	2,411,800	79.0	7,380,712
Funds:														
Existing System				0		0		0		0		0		0
Other Fund Sources		22,814		1,503,001		2,194,321		5,578,742		5,008,229		4,155,755		18,462,862
<b>TOTAL REDIRECTED RESOURCES**</b>	<b>3.0</b>	<b>349,463</b>	<b>4.0</b>	<b>1,938,533</b>	<b>4.0</b>	<b>2,634,054</b>	<b>18.0</b>	<b>7,497,051</b>	<b>22.7</b>	<b>6,856,917</b>	<b>27.3</b>	<b>6,567,554</b>	<b>79.0</b>	<b>25,843,573</b>
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>
<b>TOTAL PROJECT FUNDING</b>	<b>3.0</b>	<b>349,463</b>	<b>4.0</b>	<b>1,938,533</b>	<b>4.0</b>	<b>2,634,054</b>	<b>18.0</b>	<b>7,497,051</b>	<b>22.7</b>	<b>6,856,917</b>	<b>27.3</b>	<b>6,567,554</b>	<b>79.0</b>	<b>25,843,573</b>
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	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

FUNDING SOURCE*														
General Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Federal Fund	100%	349,463	100%	1,938,533	100%	2,634,054	100%	7,497,051	100%	6,856,917	100%	6,567,554	100%	25,843,573
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
<b>TOTAL FUNDING</b>	<b>100%</b>	<b>349,463</b>	<b>100%</b>	<b>1,938,533</b>	<b>100%</b>	<b>2,634,054</b>	<b>100%</b>	<b>7,497,051</b>	<b>100%</b>	<b>6,856,917</b>	<b>100%</b>	<b>6,567,554</b>	<b>100%</b>	<b>25,843,573</b>

\*Type: 100% federally funded by the USDA (United States Department of Agriculture)

\*\*Redirected Funds: A budget action may be required to obtain additional expenditure authority.



**PROJECT FUNDING PLAN**

Department: Public Health

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/03/2014

Project: Women, Infants, and Children (WIC) Management Information System (eWIC MIS)

	SUBTOTALS		FY 2019/20		FY 2020/21		FY 2021/22		FY 2022/23		FY 2023/24		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>TOTAL PROJECT COSTS</b>	<b>79.0</b>	<b>25,843,573</b>	<b>30.3</b>	<b>6,728,840</b>	<b>33.3</b>	<b>6,521,828</b>	<b>40.0</b>	<b>7,187,328</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>182.5</b>	<b>46,281,570</b>
<b>RESOURCES TO BE REDIRECTED</b>														
Staff	79.0	7,380,712	30.3	3,066,556	33.3	3,327,500	40.0	3,993,000	0.0	0	0.0	0	182.5	17,767,768
Funds:														
Existing System		0		0		0		0		0		0		0
Other Fund Sources		18,462,862		3,662,284		3,194,328		3,194,328		0		0		28,513,802
<b>TOTAL REDIRECTED RESOURCES**</b>	<b>79.0</b>	<b>25,843,573</b>	<b>30.3</b>	<b>6,728,840</b>	<b>33.3</b>	<b>6,521,828</b>	<b>40.0</b>	<b>7,187,328</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>182.5</b>	<b>46,281,570</b>
<b>ADDITIONAL PROJECT FUNDING NEEDED</b>														
One-Time Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>
<b>TOTAL PROJECT FUNDING</b>	<b>79.0</b>	<b>25,843,573</b>	<b>30.3</b>	<b>6,728,840</b>	<b>33.3</b>	<b>6,521,828</b>	<b>40.0</b>	<b>7,187,328</b>	<b>0.0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>182.5</b>	<b>46,281,570</b>
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	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
<b>FUNDING SOURCE*</b>														
General Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Federal Fund	100%	25,843,573	100%	6,728,840	100%	6,521,828	100%	7,187,328	0%	0	0%	0	100%	46,281,570
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
<b>TOTAL FUNDING</b>	<b>100%</b>	<b>25,843,573</b>	<b>100%</b>	<b>6,728,840</b>	<b>100%</b>	<b>6,521,828</b>	<b>100%</b>	<b>7,187,328</b>	<b>100%</b>	<b>0</b>	<b>0%</b>	<b>0</b>	<b>100%</b>	<b>46,281,570</b>

\*Type: 100% federally funded by the USDA (United States Department of Agriculture)

\*\*Redirected Funds: A budget action may be required to obtain additional expenditure authority.

