

**Item D – California Court Case Management System:  
Deployment Cost Analysis by Grant Thornton LLP**

The original report for this item was a 92-page PowerPoint presentation. Grant Thornton added a 62-page report to the presentation the day of the Judicial Council meeting (*March 27, 2012*), which is attached to the original document, starting at page 95.



Judicial Council of California  
Administrative Office of the Courts  
Court Case Management System (CCMS)

Recommended CCMS V4 Deployment Plan and  
Approach

Final

March 26, 2012

# Table of Contents

- 1.0 Introduction
- 2.0 Recommended Deployment Strategy
- 3.0 Deployment Cost Analysis
- 4.0 Benefits Analysis
- 5.0 Cost Benefit Analysis
- 6.0 Summary of Analysis
- Appendix: Economic Analysis Worksheets

# 1.0 Introduction

- 1.1 Background
- 1.2 Purpose and Scope
- 1.3 Approach
- 1.4 Assumptions and Constraints
- 1.5 Document Organization

# 1.1 Background

The Court Case Management System (CCMS) remains one of largest Information Technology (IT) projects the State of California has ever initiated. In an effort to consolidate case management systems within the courts and to increase the ability to share data statewide among the Administrative Office of the Courts (AOC), local superior courts, and state and local justice partners (e.g., the Department of Justice, the Department of Social Services, and local law enforcement agencies) the CCMS project was initiated in early 2002. The CCMS is a custom software development project that was developed in iterative phases (i.e., Version 2 [V2], V3, and V4), with the intent being that lessons learned from each phase would assist in the planning of the next phase. The CCMS V4 solution has been fully developed and is now ready for deployment to the Judicial Branch's 58 courts.

Due to budget cuts related to the State's current financial crisis, the CCMS project does not currently have the funding to support deployment of the CCMS V4 solution to all of the Judicial Branch's 58 courts. In response to this, Grant Thornton was engaged by the AOC to develop a recommended deployment plan and approach for the CCMS V4 system that:

- Presents a recommended sequence and timeline for deployment of CCMS V4 to a portion of the Judicial Branch's courts, and which can be used as an effective model for the deployment of subsequent courts; and
- Articulates the expected quantitative and qualitative benefits to be delivered by the CCMS V4 system to impacted courts once fully deployed. Note that no new revenue sources were assumed when estimating the potential benefits to the Branch of deploying CCMS V4.

The AOC will use the above information to support decision-making on the future course of the project.

## 1.2 Purpose and Scope

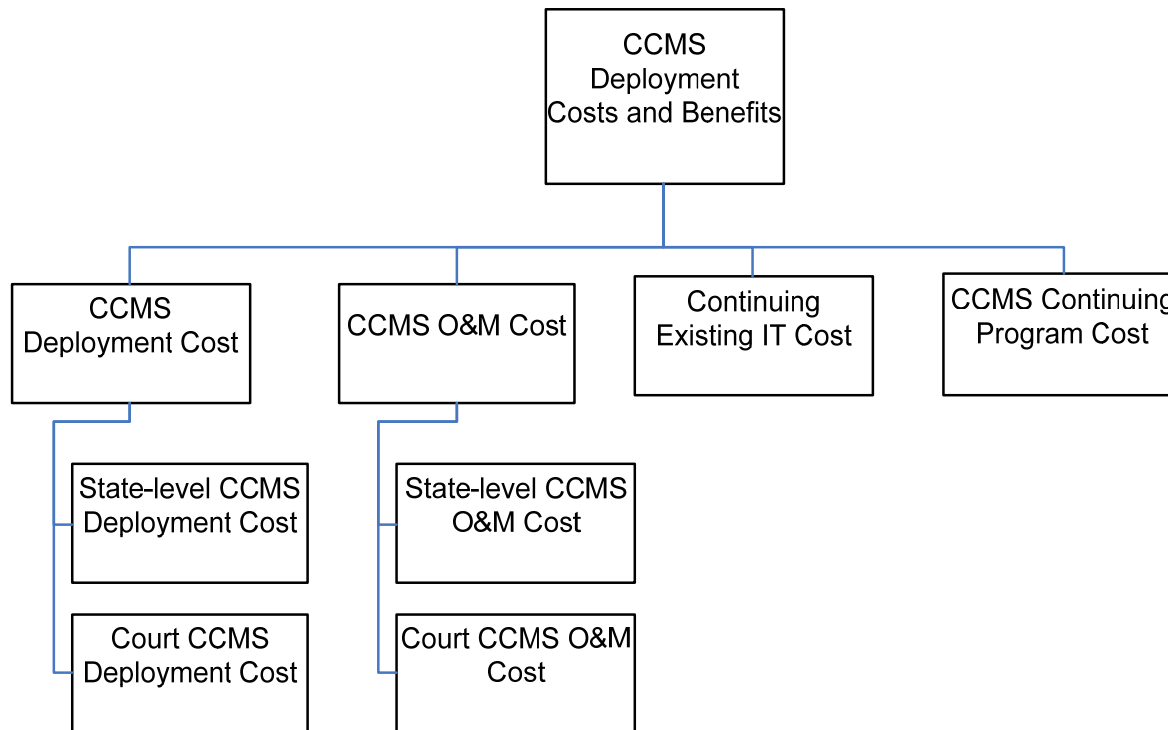
This ***Recommended CCMS V4 Deployment Plan and Approach*** document estimates the deployment costs and benefits to AOC and to the recommended courts of a limited deployment of CCMS V4 to one early adopter court and to ten subsequent courts (referred to in the document as the Phase 2 courts). To accomplish this, Grant Thornton:

- Independently reviewed and validated the AOC's budget assumptions for the San Luis Obispo early adopter court deployment. We then developed a revised early adopter deployment budget, with modified assumptions where Grant Thornton considered these warranted, and presented in the State of California Economic Analysis Worksheet (EAW) format;
- Identified ten additional courts to participate in an initial deployment of CCMS V4. Courts were recommended based on a set of evaluation criteria that included court size, current use of CCMS V2 or V3, stability of current Case Management System(s) (CMS), and enthusiasm to take part in a CCMS V4 deployment;
- Estimated the current environment (baseline) costs for these courts through FY 20/21 if they were not to deploy CCMS V4;
- Estimated the CCMS V4 deployment costs for these courts (both one-time and ongoing) through FY 20/21, and estimated the benefits associated with deploying CCMS V4 to the recommended courts; and
- Estimated the Return on Investment (ROI) of deploying CCMS V4 to the recommended courts versus not deploying CCMS.

Although this analysis leverages many of the methods and tools employed in Grant Thornton's 2011 CCMS V4 Cost Benefit Analysis, this document is not an update to that analysis in that it considers only the 11 courts included in this document's deployment scope.

# 1.3 Approach

To estimate the costs and benefits associated with deploying CCMS V4 to the early adopter court and to ten additional courts, Grant Thornton incorporated the following elements into our analysis.



These elements are described on the following page.



## 1.3 Approach (contd)

- **CCMS deployment costs.** CCMS deployment costs to be paid through state-level funding are based on deployment budget estimates developed by Grant Thornton, using the validated early adopter court budget as a foundation. Court staff costs associated with the V4 deployment are based on estimates received from courts who have participated in the CCMS V4 readiness assessments.
- **CCMS operations and maintenance costs.** CCMS operations and maintenance costs are based on estimates received from the AOC during the early adopter budget analysis and in some cases reflect actual contract pricing based on assumptions provided to the AOC by Grant Thornton. Court CCMS operations and maintenance costs primarily reflect assumed out-of-pocket expenses for courts during ongoing CCMS operations.
- **Continuing IT costs.** Courts are assumed to continue to expend resources on operating and maintaining their current CMS' at the current rate until CCMS is implemented at their court. Current CMS IT costs are based on our data collection and interviews with courts to understand their current IT expenditures. In addition to courts' other systems, current IT costs include the cost of maintaining any currently operational instances of V2 and V3.
- **Continuing program costs.** The increased automation and more efficient business practices anticipated to be delivered by CCMS V4 are assumed to impact each court's operations after that court has deployed CCMS. The business process efficiencies delivered by CCMS may have the effect of reducing state-wide continuing program costs as courts deploy CCMS.

# 1.4 Assumptions and Constraints

Grant Thornton made the following assumptions in developing the *Recommended CCMS V4 Deployment Plan and Approach*, and was also impacted by the following constraints.

## Assumptions:

- AOC staff or their representatives will be available as required to provide historical CCMS information to Grant Thornton, and to identify and provide specific documentation relevant to our analysis.
- Court representatives will be reasonably available to meet with Grant Thornton staff in timely manner as necessary to support site visits.
- Baseline cost information returned by courts in response to e-mail or telephone inquiries will be accurate and representative of court case management costs.
- CCMS V4 project costs are assumed to begin in Fiscal Year (FY) 2011/12 and only include additional costs that would be incurred after the Judicial Council decision to proceed with CCMS V4 deployment. The timeline of the analysis extends through FY 2020/21.

## Constraints:

- Midway through our project period of performance, the AOC requested that Grant Thornton accelerate the delivery of our draft and final reports by approximately two weeks to accommodate a Judicial Council meeting to be held on March 27<sup>th</sup>, 2011. To respond to this request, Grant Thornton was required to accelerate our analysis and change our approach to data collection, including reducing the number of courts site visits and reducing the quantity and detail of information received from some courts.

# 1.5 Document Organization

This document comprises the following sections:

- **Section 1, Introduction:** This section presents the background to the Recommended CCMS V4 Deployment Plan and Approach, including defining the purpose and scope of the analysis and documenting any significant assumptions or constraints that impacted the analysis.
- **Section 2, Recommended Deployment Strategy:** This section presents our recommended plan and approach for deploying the CCMS V4 system to the early adopter court and to ten additional Phase 2 courts.
- **Section 3, Deployment Cost Analysis:** This section presents our independent assessment of the AOC's early adopter deployment budget estimate, and also presents our estimate of the one-time and continuing costs for deploying CCMS V4 to the recommended ten additional Phase 2 courts.
- **Section 4: Deployment Benefits Analysis:** This section presents the estimated benefits associated with the deployment of CCMS V4 to the early adopter court and to the recommended ten additional courts.
- **Section 5: Cost Benefit Analysis:** This section presents an analysis of two deployment scenarios: i) a baseline scenario, which assumes that CCMS V4 is not deployed, ii) the recommended deployment scenario, which reflects the costs related to the deployment of the CCMS V4 system to the early adopter and recommended Phase 2 courts.
- **Section 6: Summary of Analysis:** This section summarizes the results of the analysis and presents any recommendations to the Judicial Council.
- **Appendix: Economic Analysis Worksheets.** This appendix (incorporated by reference as a separate Microsoft Excel file) will present the results of the recommended deployment approach and plan in the State of California EAW format.

# 2.0 Recommended Deployment Strategy

- 2.1 Overview
- 2.2 Deployment Scope and Assumptions
- 2.3 Deployment Sequence and Timeline

# 2.1 Overview

This section presents Grant Thornton's recommended deployment plan for a 'Phase 2' set of ten courts that would implement CCMS V4 after the early adopter court is deployed. Our objective was to identify a representative group of courts that would both demonstrate the utility of CCMS V4 to the Judicial Branch as a whole and that would be most cost-beneficial to the Branch to deploy. Our approach to developing the deployment plan comprised the following steps:

1. Identify evaluation criteria by which to determine the courts to be included in the Phase 2 deployment;
2. Develop an initial list of candidate courts for inclusion in the Phase 2 deployment;
3. Communicate with each candidate court (by e-mail and/or by phone) to determine their suitability for inclusion in the Phase 2 deployment;
4. Select the set of ten courts for inclusion in the Phase 2 deployment;
5. Group the courts into two sub-phases (Phase 2.1 and Phase 2.2), each of which would be deployed concurrently; and
6. Develop a high-level deployment sequence and timeline for the recommended courts.

The following subsections present this approach in more detail.

# Overview- court selection criteria

Grant Thornton selected the ten courts for inclusion in the deployment by considering the following evaluation criteria:

- **Court size:** Larger courts are more likely to deliver a positive return on investment for the CCMS V4 deployment, but we also wanted to include a representative diversity of types of courts in the deployment plan;
- **Current operation of CCMS V2 or V3:** Including the courts that currently operate CCMS V2 or V3 presents the opportunity to reduce or eliminate the annual costs associated with maintaining and operating these systems.
- **Critical need:** Courts that would soon need to replace their current CMS were considered a high priority since CCMS could respond to an urgent need.

In addition, the receptiveness of each court to participation in an early CCMS V4 deployment was also taken into consideration as we identified candidate courts. However, inclusion in our recommended deployment plan does not imply that those courts have committed to deploy CCMS V4. In some cases we recommended courts for inclusion in the CCMS V4 deployment even though the courts expressed reservations about their inclusion in an early deployment phase. We did this only in cases where the economic justification for their inclusion was particularly strong.

# Overview - recommended courts

The following ten courts were recommended by Grant Thornton for inclusion in the CCMS V4 deployment.

Court	Size	V2	V3	Critical Need
Alameda	L			
Fresno	M	✓		✓
Inyo	XS			
Marin	S			
Mendocino	S			✓
Orange	L		✓	
San Diego	L		✓	✓
San Joaquin	M		✓	✓
Santa Cruz	S			
Ventura	M		✓	

## 2.2 Deployment Scope and Assumptions

Deploying the full scope of CCMS to each court will provide the greatest return on investment for CCMS, since the largest possible case volume will be processed within the system. For this reason we generally assumed that each court will deploy all case types onto CCMS V4. However, recognizing that some courts wish to deploy CCMS in stages - with different case types at each stage – Grant Thornton assumed that some courts would implement CCMS V4 on a case type-by-case type basis. The assumptions we used in our analysis are as follows:

Court	Assumption
Alameda	Will only implement Criminal.
Fresno	All case types within a single release or in close succession.
Inyo	All case types within a single release or in close succession.
Marin	All case types within a single release or in close succession.
Mendocino	All case types within a single release or in close succession.
Orange	Two releases, the first with Family, Juvenile, Criminal and Traffic, and the second with Civil, Probate and Small Claims.
San Diego	Two releases, the first with Family and Juvenile and the second with all other case types.
San Joaquin	All case types within a single release or in close succession.
Santa Cruz	All case types within a single release or in close succession.
Ventura	Two releases, the first with Civil, Probate and Small Claims, and the second with Family, Juvenile, Criminal and Traffic.



# 2.3 Deployment Sequence and Timeline - Overview

ID	Task Name	Start	Finish	2012	2013					2014				2015				2016			
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3		
1	Phase 1	9/4/2012	2/17/2014	█																	
2	San Luis Obispo	9/4/2012	2/17/2014	█																	
3	Phase 2.1	8/6/2013	1/18/2016			█															
4	Go/No Stage Gate for Phase 2.1	10/29/2013	10/29/2013						◆												
5	San Diego	8/6/2013	1/18/2016			█															
6	Fresno	8/6/2013	3/3/2015			█															
7	CCMS V2 Retired	11/14/2014	11/14/2014															◆			
8	San Joaquin	8/6/2013	4/13/2015			█															
9	Santa Cruz	8/6/2013	4/13/2015			█															
10	Mendocino	8/6/2013	4/13/2015			█															
11	Phase 2.2	5/13/2014	10/25/2016							█											
12	Alameda	5/13/2014	1/18/2016							█											
13	Inyo	5/13/2014	6/8/2015							█											
14	Marin	5/13/2014	1/18/2016							█											
15	Ventura	5/13/2014	10/25/2016							█											
16	Orange	5/13/2014	10/25/2016							█											
17	AOC takes over CCMS V4 M&O	7/1/2016	7/1/2016																◆		
18	Opportunity to retire CCMS V3	10/25/2016	10/25/2016																◆		

## 2.3 Deployment Sequence and Timeline – Key Elements

The deployment sequence and timeline presented on the previous page included the following key elements:

- **A 'Go/No Go' stage gate for the Phase 2 deployment on 10/29/2013.** This date coincides with the completion of User Acceptance Testing at San Luis Obispo and the completion of a 3 month Planning and Assessment activity at each Phase 2.1 court. The stage gate activity provides the Judicial Council with an opportunity to review the progress of deployment at San Luis Obispo prior to actual cutover activities and to review the Phase 2.1 courts' assessment of the 'fit' of CCMS V4 to their needs. Based on a review of this information the Judicial Council can then make a decision either to proceed with the CCMS V4 deployment or to cancel the deployment before significant funds are expended on the Phase 2.1 courts.
- **Retirement of CCMS V2 in November 2014.** Once the Criminal and Traffic case types for Fresno have been deployed, the CCMS V2 system can be retired, saving the Judicial Branch the associated operating and maintenance costs for that system.
- **Assumption of CCMS V4 M&O responsibilities by the AOC on 7/1/2016.** Grant Thornton assumed that Deloitte would execute M&O activities for CCMS V4 in the early years of the deployment. We also assumed that after the majority of the Phase 2.1 deployment had been stable in production for one year that the AOC would take over M&O, so reducing annual costs in this area for future years.
- **An opportunity to retire CCMS V3 after October 2016.** Once all the Phase 2 courts have completed their deployments only two courts will remain on CCMS V3. At this point it would no longer be economically justified for the AOC to continue to maintain the V3 system. We recommend that the AOC encourage all V3 courts to transition to a new case management solution by October 2016 .

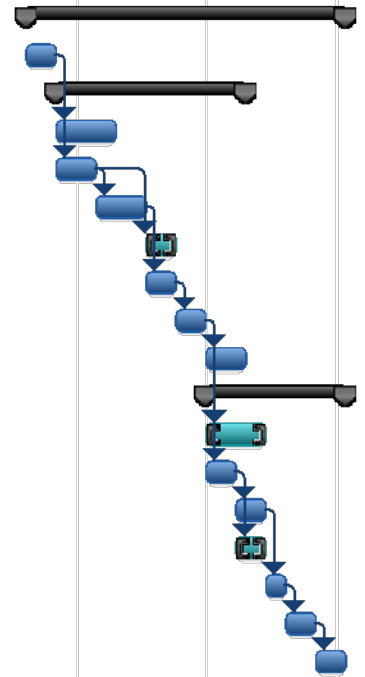
The following pages present a more detailed MS-Project schedule for the deployment. Note that the following schedule is not intended as a detailed implementation plan, but instead was used to understand the overall durations and major milestone dates of the deployment approach. As such, the schedule has not been resource loaded or leveled.

# 2.3 Deployment Sequence and Timeline - Schedule

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
1	<b>CCMS V4 Deployment</b>													
2	<b>Phase 1</b>	<b>470 days</b>	<b>Tue 5/1/12</b>	<b>Mon 2/17/14</b>										
3	Complete CCMS V4 Release 1	132 days	Tue 5/1/12	Wed 10/31/12										
4	<b>Prepare/Build out Environments for support</b>	<b>300 days</b>	<b>Tue 9/4/12</b>	<b>Tue 10/29/13</b>										
5	LT	0 days	Tue 9/4/12	Tue 9/4/12										
6	UAT	0 days	Tue 5/14/13	Tue 5/14/13										
7	TRN	0 days	Tue 5/14/13	Tue 5/14/13										
8	STAGING	0 days	Tue 10/29/13	Tue 10/29/13										
9	PRODUCTION	0 days	Tue 10/29/13	Tue 10/29/13										
10	<b>SLO</b>	<b>380 days</b>	<b>Tue 9/4/12</b>	<b>Mon 2/17/14</b>										
11	Court Config	80 days	Tue 9/4/12	Mon 12/24/12										
12	Config Test	100 days	Tue 12/25/12	Mon 5/13/13										
13	End To End Test	60 days	Tue 5/14/13	Mon 8/5/13										
14	User Acceptance Test	60 days	Tue 8/6/13	Mon 10/28/13										
15	Cutover	80 days	Tue 10/29/13	Mon 2/17/14										
16	<b>Phase 2</b>	<b>840 days</b>	<b>Tue 8/6/13</b>	<b>Tue 10/25/16</b>										
17	<b>Phase 2.1</b>	<b>640 days</b>	<b>Tue 8/6/13</b>	<b>Mon 1/18/16</b>										
18	Phase 2.1 Go/No Go Stage Gate Review	0 days	Tue 10/29/13	Tue 10/29/13										
19	<b>Build out Conversion Environments</b>	<b>0 days</b>	<b>Tue 10/29/13</b>	<b>Tue 10/29/13</b>										
20	Conversion Execution Environments (5)	0 days	Tue 10/29/13	Tue 10/29/13										
21	Conversion Test Environment (1 env)	0 days	Tue 10/29/13	Tue 10/29/13										

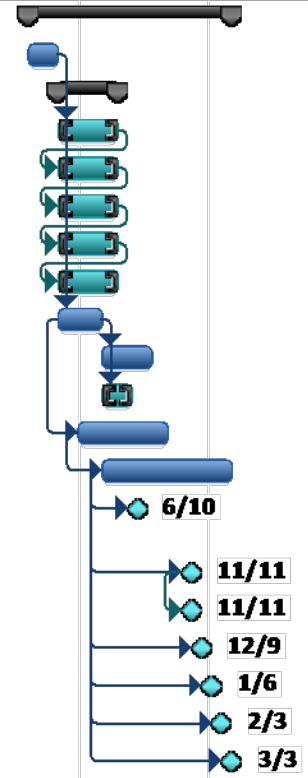
# 2.3 Deployment Sequence and Timeline – Schedule (contd)

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
22	<b>Scale up Environments to support Phase</b>	<b>0 days</b>	<b>Tue 3/4/14</b>	<b>Tue 3/4/14</b>				● 3/4						
23	Staging	0 days	Tue 3/4/14	Tue 3/4/14				● 3/4						
24	Production	0 days	Tue 3/4/14	Tue 3/4/14				● 3/4						
25	<b>San Diego</b>	<b>640 days</b>	<b>Tue 8/6/13</b>	<b>Mon 1/18/16</b>										
26	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13										
27	<b>Family and Juvenile</b>	<b>380 days</b>	<b>Tue 10/29/13</b>	<b>Mon 4/13/15</b>										
28	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14										
29	Court Config	80 days	Tue 10/29/13	Mon 2/17/14										
30	Config Test	100 days	Tue 2/18/14	Mon 7/7/14										
31	Training	60 days	Tue 7/8/14	Mon 9/29/14										
32	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14										
33	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14										
34	Cutover Family and Juvenile	80 days	Tue 12/23/14	Mon 4/13/15										
35	<b>Other case types</b>	<b>280 days</b>	<b>Tue 12/23/14</b>	<b>Mon 1/18/16</b>										
36	Data Conversion and Testing	120 days	Tue 12/23/14	Mon 6/8/15										
37	Court Config	60 days	Tue 12/23/14	Mon 3/16/15										
38	Config Test	60 days	Tue 3/17/15	Mon 6/8/15										
39	Training	60 days	Tue 3/17/15	Mon 6/8/15										
40	End To End Test	40 days	Tue 6/9/15	Mon 8/3/15										
41	User Acceptance Test	60 days	Tue 8/4/15	Mon 10/26/15										
42	Cutover other case types	60 days	Tue 10/27/15	Mon 1/18/16										



# 2.3 Deployment Sequence and Timeline – Schedule (contd)

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
43	<b>Fresno</b>	<b>410 days</b>	<b>Tue 8/6/13</b>	<b>Tue 3/3/15</b>										
44	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13										
45	<b>Data Conversion and Testing</b>	<b>120 days</b>	<b>Tue 10/29/13</b>	<b>Mon 4/14/14</b>										
46	Civil, Small Claims, Probate	120 days	Tue 10/29/13	Mon 4/14/14										
47	Criminal and Traffic	120 days	Tue 10/29/13	Mon 4/14/14										
48	Family Law	120 days	Tue 10/29/13	Mon 4/14/14										
49	Support	120 days	Tue 10/29/13	Mon 4/14/14										
50	Juevenile Delinquency	120 days	Tue 10/29/13	Mon 4/14/14										
51	Court Config	90 days	Tue 10/29/13	Mon 3/3/14										
52	Config Test	100 days	Tue 3/4/14	Mon 7/21/14										
53	Training	60 days	Tue 3/4/14	Mon 5/26/14										
54	End To End Test/UAT	180 days	Tue 12/24/13	Mon 9/1/14										
55	Cutover	260 days	Tue 3/4/14	Mon 3/2/15										
56	Cutover Civil, Small Claims, Probate	0 days	Tue 6/10/14	Tue 6/10/14										
57	Cutover Criminal and Traffic	0 days	Tue 11/11/14	Tue 11/11/14										
58	CCMS V2 Retired	0 days	Tue 11/11/14	Tue 11/11/14										
59	Cutover Family Law	0 days	Tue 12/9/14	Tue 12/9/14										
60	Cutover Support	0 days	Tue 1/6/15	Tue 1/6/15										
61	Cutover Juvenile Delinquency	0 days	Tue 2/3/15	Tue 2/3/15										
62	Cutover Juvenile Dependency	0 days	Tue 3/3/15	Tue 3/3/15										



## 2.3 Deployment Sequence and Timeline – Schedule (contd)

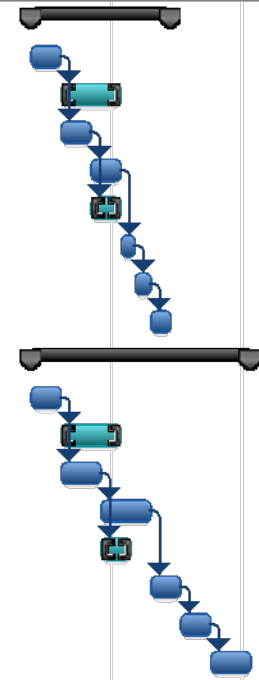
ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	H1
63	<b>San Joaquin</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>			[Timeline bar]							
64	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13			[Task]							
65	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14			[Task]							
66	Court Config	80 days	Tue 10/29/13	Mon 2/17/14			[Task]							
67	Config Test	100 days	Tue 2/18/14	Mon 7/7/14			[Task]							
68	Training	60 days	Tue 10/29/13	Mon 1/20/14			[Task]							
69	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14			[Task]							
70	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14			[Task]							
71	Cutover	80 days	Tue 12/23/14	Mon 4/13/15			[Task]							
72	<b>Santa Cruz</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>			[Timeline bar]							
73	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13			[Task]							
74	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14			[Task]							
75	Court Config	80 days	Tue 10/29/13	Mon 2/17/14			[Task]							
76	Config Test	100 days	Tue 2/18/14	Mon 7/7/14			[Task]							
77	Training	60 days	Tue 2/18/14	Mon 5/12/14			[Task]							
78	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14			[Task]							
79	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14			[Task]							
80	Cutover	80 days	Tue 12/23/14	Mon 4/13/15			[Task]							

# 2.3 Deployment Sequence and Timeline – Schedule (contd)

ID	Task Name	Duration	Start	Finish	2013		2014			2015		2016		2017		
					H2	H1	H2	H1	H2	H1	H2	H1	H2	H1	H2	
81	<b>Mendocino</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>												
82	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13												
83	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14												
84	Court Config	80 days	Tue 10/29/13	Mon 2/17/14												
85	Config Test	100 days	Tue 2/18/14	Mon 7/7/14												
86	Training	60 days	Tue 2/18/14	Mon 5/12/14												
87	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14												
88	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14												
89	Cutover	80 days	Tue 12/23/14	Mon 4/13/15												
90	<b>Phase 2.2</b>	<b>640 days</b>	<b>Tue 5/13/14</b>	<b>Tue 10/25/16</b>												
91	<b>Scale up Environments to support Phase</b>	<b>0 days</b>	<b>Tue 4/14/15</b>	<b>Tue 4/14/15</b>												
92	Staging	0 days	Tue 4/14/15	Tue 4/14/15												
93	Production	0 days	Tue 4/14/15	Tue 4/14/15												
94	<b>Alameda</b>	<b>440 days</b>	<b>Tue 5/13/14</b>	<b>Mon 1/18/16</b>												
95	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14												
96	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15												
97	Court Config	80 days	Tue 8/5/14	Mon 11/24/14												
98	Config Test	100 days	Tue 11/25/14	Mon 4/13/15												
99	Training	60 days	Tue 11/25/14	Mon 2/16/15												
100	End To End Test	60 days	Tue 4/14/15	Mon 7/6/15												
101	User Acceptance Test	60 days	Tue 7/7/15	Mon 9/28/15												
102	Cutover	80 days	Tue 9/29/15	Mon 1/18/16												

## 2.3 Deployment Sequence and Timeline – Schedule (contd)

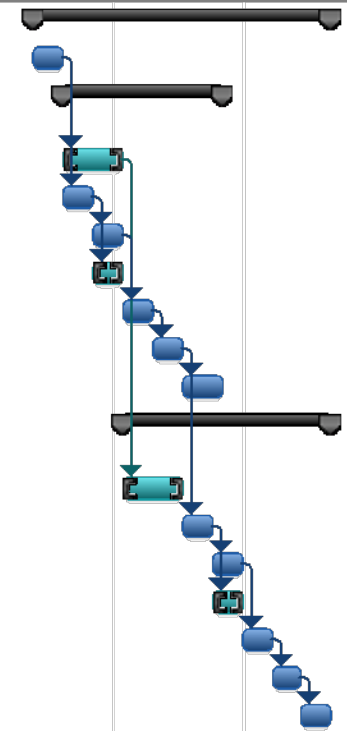
ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
103	<b>Inyo</b>	<b>280 days</b>	<b>Tue 5/13/14</b>	<b>Mon 6/8/15</b>										
104	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
105	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
106	Court Config	60 days	Tue 8/5/14	Mon 10/27/14										
107	Config Test	60 days	Tue 10/28/14	Mon 1/19/15										
108	Training	60 days	Tue 10/28/14	Mon 1/19/15										
109	End To End Test	30 days	Tue 1/20/15	Mon 3/2/15										
110	User Acceptance Test	30 days	Tue 3/3/15	Mon 4/13/15										
111	Cutover	40 days	Tue 4/14/15	Mon 6/8/15										
112	<b>Marin</b>	<b>440 days</b>	<b>Tue 5/13/14</b>	<b>Mon 1/18/16</b>										
113	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
114	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
115	Court Config	80 days	Tue 8/5/14	Mon 11/24/14										
116	Config Test	100 days	Tue 11/25/14	Mon 4/13/15										
117	Training	60 days	Tue 11/25/14	Mon 2/16/15										
118	End To End Test	60 days	Tue 4/14/15	Mon 7/6/15										
119	User Acceptance Test	60 days	Tue 7/7/15	Mon 9/28/15										
120	Cutover	80 days	Tue 9/29/15	Mon 1/18/16										





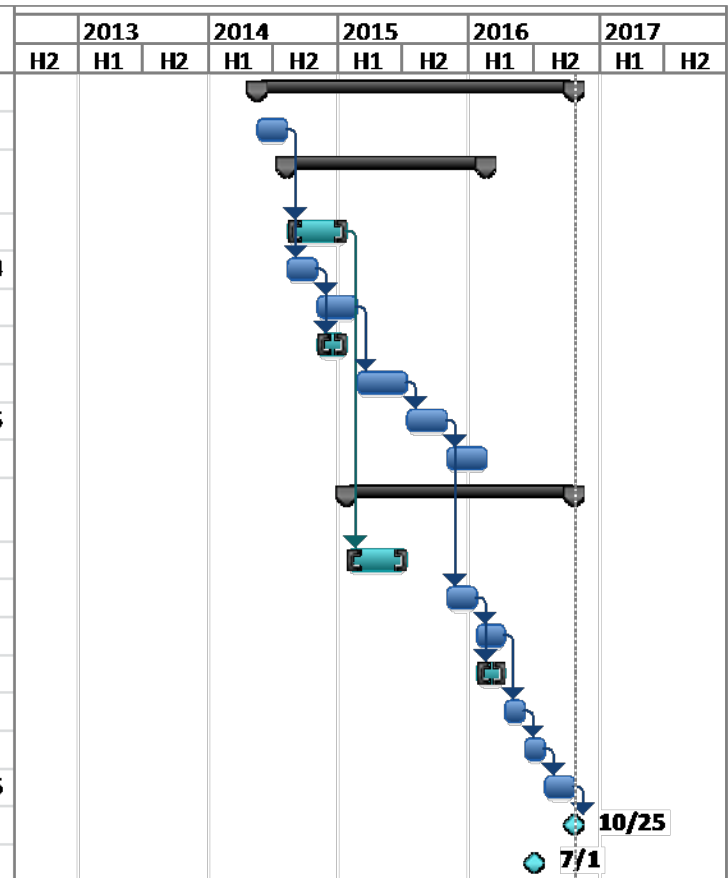
# 2.3 Deployment Sequence and Timeline – Schedule (contd)

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
121	<b>Ventura</b>	<b>600 days</b>	<b>Tue 5/13/14</b>	<b>Mon 8/29/16</b>										
122	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
123	<b>Civil, Probate and Small Claims (V3 functionality)</b>	<b>320 days</b>	<b>Tue 8/5/14</b>	<b>Mon 10/26/15</b>										
124	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
125	Court Config	60 days	Tue 8/5/14	Mon 10/27/14										
126	Config Test	60 days	Tue 10/28/14	Mon 1/19/15										
127	Training	60 days	Tue 10/28/14	Mon 1/19/15										
128	End To End Test	60 days	Tue 1/20/15	Mon 4/13/15										
129	User Acceptance Test	60 days	Tue 4/14/15	Mon 7/6/15										
130	Cutover	80 days	Tue 7/7/15	Mon 10/26/15										
131	<b>Family, Juvenile, Criminal and Traffic</b>	<b>420 days</b>	<b>Tue 1/20/15</b>	<b>Mon 8/29/16</b>										
132	Data Conversion and Testing	120 days	Tue 1/20/15	Mon 7/6/15										
133	Court Config	60 days	Tue 7/7/15	Mon 9/28/15										
134	Config Test	60 days	Tue 9/29/15	Mon 12/21/15										
135	Training	60 days	Tue 9/29/15	Mon 12/21/15										
136	End To End Test	60 days	Tue 12/22/15	Mon 3/14/16										
137	User Acceptance Test	60 days	Tue 3/15/16	Mon 6/6/16										
138	Cutover	60 days	Tue 6/7/16	Mon 8/29/16										



## 2.3 Deployment Sequence and Timeline – Schedule (contd)

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
139	<b>Orange</b>	<b>640 days</b>	<b>Tue 5/13/14</b>	<b>Tue 10/25/16</b>										
140	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
141	<b>Family, Juvenile, Criminal and Traffic</b>	<b>400 days</b>	<b>Tue 8/5/14</b>	<b>Mon 2/15/16</b>										
142	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
143	Court Config	60 days	Tue 8/5/14	Mon 10/27/14										
144	Config Test	80 days	Tue 10/28/14	Mon 2/16/15										
145	Training	60 days	Tue 10/28/14	Mon 1/19/15										
146	End To End Test	100 days	Tue 2/17/15	Mon 7/6/15										
147	User Acceptance Test	80 days	Tue 7/7/15	Mon 10/26/15										
148	Cutover	80 days	Tue 10/27/15	Mon 2/15/16										
149	<b>Civil, Probate and Small Claims (V3 functionality)</b>	<b>460 days</b>	<b>Tue 1/20/15</b>	<b>Tue 10/25/16</b>										
150	Data Conversion and Testing	120 days	Tue 1/20/15	Mon 7/6/15										
151	Court Config	60 days	Tue 10/27/15	Mon 1/18/16										
152	Config Test	60 days	Tue 1/19/16	Mon 4/11/16										
153	Training	60 days	Tue 1/19/16	Mon 4/11/16										
154	End To End Test	40 days	Tue 4/12/16	Mon 6/6/16										
155	User Acceptance Test	40 days	Tue 6/7/16	Mon 8/1/16										
156	Cutover	60 days	Tue 8/2/16	Mon 10/24/16										
157	Opportunity to retire V3	0 days	Tue 10/25/16	Tue 10/25/16										
158	AOC takes over M&O responsibilities	0 days	Fri 7/1/16	Fri 7/1/16										



# 3.0 Deployment Cost Analysis

- 3.1 Early Adopter Deployment Cost Analysis
- 3.2 Phase 2 Courts Deployment Cost Analysis

# 3.1 Early Adopter Deployment Cost Analysis

This subsection presents our assessment of the AOC's budget estimate for the San Luis Obispo early adopter court deployment of CCMS V4. The AOC has created multiple different scenarios for early adopter court deployment. The version of the early adopter deployment used for our analysis was the San Luis Obispo-only early adopter budget which we will refer to as the 'Jan 5<sup>th</sup>' budget estimate in this report. Our assessment of the early adopter budget estimate comprised the following steps:

- 1. Mapping the AOC budget categories to the State EAW format.** This activity enabled us to understand which costs were one-time versus which costs were continuing, and also which costs were directly related to court-level deployment activities versus which costs were associated with establishing and maintaining the state-level infrastructure that could support multiple subsequent court deployments.
- 2. Validating the AOC budget assumptions, and revising them where appropriate.** We assessed the reasonableness of the assumptions used by the AOC in constructing their budget, and where we considered it warranted we revised the assumptions to reflect what we considered to be more comprehensive or realistic estimate of likely costs and their timing.
- 3. Developing an update early adopter deployment budget estimate.** We developed an updated early adopter deployment budget estimate that reflects all validated and revised assumptions, and that also shifted the time period for the early adopter deployment to match the timeframe presented in our recommended deployment approach and plan.

Each of these steps is described in the following pages.

# Summary of AOC Early Adopter Budget Estimate

The AOCs Jan 5<sup>th</sup> estimate of the budget required to implement CCMS V4 at the San Luis Obispo early adopter court comprises the following high-level categories:

- **San Luis Obispo Court Deployment Costs:** These costs include the contract staff engaged on-site to support the San Luis Obispo deployment, and the funds agreed by the AOC and by San Luis Obispo to be provided to the court to support the court staff engaged in the deployment. This category also includes an estimate of the funds required to implement and host at the California Court Technology Center (CCTC) a Document Management System (DMS) that will be integrated with CCMS V4 and that will support the needs of San Luis Obispo and of other additional courts. The Jan 5<sup>th</sup> budget estimated these costs at \$8,261,942.
- **Deployment Support Costs:** These costs comprise certain CCTC hosting charges for the CCMS V4 technical environment, and AOC and contract staff supporting the deployment of CCMS to San Luis Obispo. The Jan 5<sup>th</sup> budget estimated these costs at \$21,072,160.
- **Product Application Support Costs:** These costs comprise the majority of the CCTC hosting charges, and also include AOC and contract staff engaged in program-level activities such as database administration, quality assurance and network security. The Jan 5<sup>th</sup> budget estimated these costs at \$21,261,992 .
- **Program Management Office (PMO) Costs:** These costs include the costs for hosting of the development and integration test environments at Deloitte's Spring Valley data center, the costs for the Deloitte Maintenance and Operations (M&O) contract, and the cost of AOC program management staff and facilities costs. The Jan 5<sup>th</sup> budget estimated these costs at \$52,213,559.

In total, the Jan 5<sup>th</sup> budget estimated the San Luis Obispo deployment cost at \$102,809,653. Note that this figure included a risk contingency of \$2,910,859, and also assumed that approximately \$16m in negotiated settlement from Deloitte would be used to support the San Luis Obispo deployment.

# Translating the CCMS early adopter budget into the State EAW format

As an initial step to better understand and categorize the AOC's early adopter budget, Grant Thornton mapped the early adopter budget line items into the State EAW format, using two different EAWs: one for court-level deployment activities specifically related to San Luis Obispo, and another for state-level investments to implement infrastructure that would be used by San Luis Obispo but that would also support multiple other courts.

## AOC Early Adopter Budget Estimate

SLO Court Deployment	FY 2011-12	FY 2012-13	FY 2013-14	TOTAL
Total	\$111,709	\$2,302,349	\$1,386,487	\$8,261,942
Deployment Support	FY 2011-12	FY 2012-13	FY 2013-14	TOTAL
Total	\$3,647,315	\$8,663,767	\$8,761,079	\$21,072,160
Product Application Support	FY 2011-12	FY 2012-13	FY 2013-14	TOTAL
Total	\$6,108,410	\$9,860,448	\$5,293,133	\$21,261,992
PMO	FY 2011-12	FY 2012-13	FY 2013-14	TOTAL
Total	\$2,956,924	\$21,746,322	\$27,510,313	\$52,213,559



## Grant Thornton Early Adopter Budget Estimate

	FY 11/12	FY 12/13	FY 13/14	Total
<b>Court-level deployment costs</b>				
One-time				
Continuing				
<b>Subtotal</b>				
<b>Statewide deployment costs</b>				
One-time				
Continuing				
<b>Subtotal</b>				
<b>Total</b>				

# Validating the AOC Budget Assumptions

We assessed the reasonableness of the assumptions used by the AOC in constructing their budget, and where we considered it warranted we revised the assumptions to reflect what we considered to be more comprehensive or realistic estimate of likely costs and their timing. Specifically, we:

1. Validated that the cost basis for the hourly rates AOC staff, court staff, Contract Work Force (CWF) staff, and Deloitte staff were reasonable. In each case the assumptions used by the AOC matched an average of the actual costs incurred by AOC in the recent past.
2. Validated that travel and accommodation costs had been included in the cost estimates for AOC and CWF staff that would be engaged in deployment activities at San Luis Obispo.
3. Validated that the estimated budget for court staff costs matched the actual funds agreed to be provided to San Luis Obispo to support deployment activities. San Luis Obispo has already received some of the funds agreed to be provided by the AOC, and the early adopter budget accurately reflects the balance of the funds to be provided in future fiscal years. However, San Luis Obispo's actual court staff costs will likely be larger than the amount agreed between the AOC and the court. While the early adopter budget accurately reflects the additional court staff funding for implementing CCMS V4 at San Luis Obispo, Grant Thornton used a different (and larger) figure derived from a Deloitte estimate of court staff costs as a foundation for estimating the deployment costs at the other Phase 2 courts.
4. Confirmed that the Document Management System (DMS) implementation strategy that the AOC has chosen for the early adopter court deployment will be a central DMS implementation at the California Court Technology Center (CCTC) that will support San Luis Obispo but will also have the capacity to support up to an additional 11 courts (depending on size). The costs included in the early adopter budget were the hosting and professional services costs for establishing the DMS at the CCTC.

# Validating the AOC Budget Assumptions (contd)

5. Provided the AOC with a revised set of assumptions for CCTC hosting costs for both production and non-production environments that matched our recommended CCMS V4 deployment plan and approach. These assumptions revised the timing of the early adopter court deployment, and also required changes to infrastructure sizing estimates to reflect the infrastructure needs of the courts immediately following San Luis Obispo in the recommended deployment sequence. The AOC took these revised assumptions and priced them based on their current contract with SAIC for data center hosting services at the CCTC. This revised pricing was used in our revised early adopter budget estimate in place of the hosting cost estimate included with the '*Jan 5th*' scenario provided to us by the AOC.
6. Added an estimate for a combined Independent Project Oversight Contractor (IPOC)/Independent Validation and Verification (IV&V) contract. The AOC's early adopter budget estimate did not include an estimate for IPOC/IV&V services. We assumed that an IPOC/IV&V contract would be required (and is a best practice on projects of this size and complexity). We estimated the IPOC/IV&V cost to be equal to 5% of the total professional services cost in each fiscal year.
7. Validated the hosting charges for the Deloitte development and integration test environments at Deloitte's Spring Valley data center. Deloitte currently hosts the CCMS development and integration test environments, where any changes to the core CCMS code base are applied and tested (e.g., annual legislative changes or requested enhancements to core functionality). The AOC early adopter budget assumed a cost of \$219k per month for these services. Since the development of the AOC's early adopter budget estimate the cost for these services has been revised down to \$67,167 per month based on an assumption that the AOC will take over hosting of these environments from Deloitte. We incorporated this revised pricing in our early adopter budget estimate.



# Validating the AOC Budget Assumptions (contd)

8. Revised the assumptions related to ongoing Maintenance and Operations (M&O) of CCMS V4 by Deloitte during the early adopter deployment. The AOC had made a number of assumptions relating to the number of Deloitte staff required to support the M&O of the San Luis Obispo deployment, using in part the V3 deployment experience as a guide. Since no quotes or estimates have been sought or received from Deloitte these estimates are necessarily speculative, but they are also one of the largest elements of the AOC's early adopter budget.

Grant Thornton revised the assumptions underlying the M&O budget estimate for the following reasons:

- The AOC budget estimate assumed 100% of the Deloitte M&O team would be engaged to support the San Luis Obispo deployment from the very beginning. We considered this unrealistic, since prior to the beginning of End-to-End testing only a few environments will be required to be supported, and since nothing will yet be in production there are no production operations to support.
- The AOC budget estimate assumed that 55 Deloitte staff would be required to support the production San Luis Obispo operation. This figure was obtained by scaling up the approximately 40 staff that were engaged to support the concurrent deployment of CCMS V3 at Orange County, San Diego and Alhambra (LA). Combined, these three courts involved approximately 600 users. By comparison, the San Luis Obispo court deployment need support only 150 or so users.

Instead, Grant Thornton based our estimate of the required ongoing M&O resources on an analysis of the actual production staffing of the Deloitte team supporting V3 prior to the AOC's assumption of M&O responsibilities in November 2011. Analysis of the Deloitte M&O status reports for the period in question show an actual staffing of approximately 20 FTEs. This team supported approximately 1500 users (or 75 users per M&O staff member).

# Validating the AOC Budget Assumptions (contd)

8. (contd). Grant Thornton used this ratio as the basis for the M&O staffing requirements for the Phase 2 courts. For the San Luis Obispo court deployment (where there will be only approximate 150 users) this ratio obviously cannot be used. Instead, Grant Thornton assumed a minimum M&O team necessary to support the required non-production and production environments during the deployment. Based on the AOC's prior experience in deploying V3, and on the number of case types involved in the V4 deployment, we estimated this at 25 staff. This team would scale up in size with the deployment of future courts to CCMS V4.
9. Validated the assumptions used by the AOC to include a risk contingency in the budget. The AOC assumed two levels of risk contingency: a contingency for all professional services contracts during the deployment (approximately 10%), and a contingency for data center hosting charges (approximately 3.5%). We considered the total contingency amounts for both categories to be reasonable given the extensive planning that has taken place for the San Luis Obispo deployment.
10. Added an estimated cost for the completion of CCMS V4 Release 1. Before CCMS V4 can be deployed at any court, the core software must be brought up-to-date with all legislative changes since the design requirements were 'frozen' during CCMS V4 development. The AOC has 85 legislative changes, 76 enhancements, and 25 bug fixes that they would like to incorporate into the CCMS V4 core software to create a 'CCMS V4 Release 1' that will be ready to implement at the early adopter court. Deloitte is currently completing the design work for these changes under an existing contract, but the AOC estimates that a new contract with a value of approximately \$5m will be required to apply all these changes to CCMS V4 by November 2012. The 'Jan 5th' early adopter budget assumed that the Deloitte negotiated settlement would include this additional contract cost, but Grant Thornton has explicitly included it in our revised early adopter budget. We assumed that all of the estimated \$5m would be expended in FY 12/13.

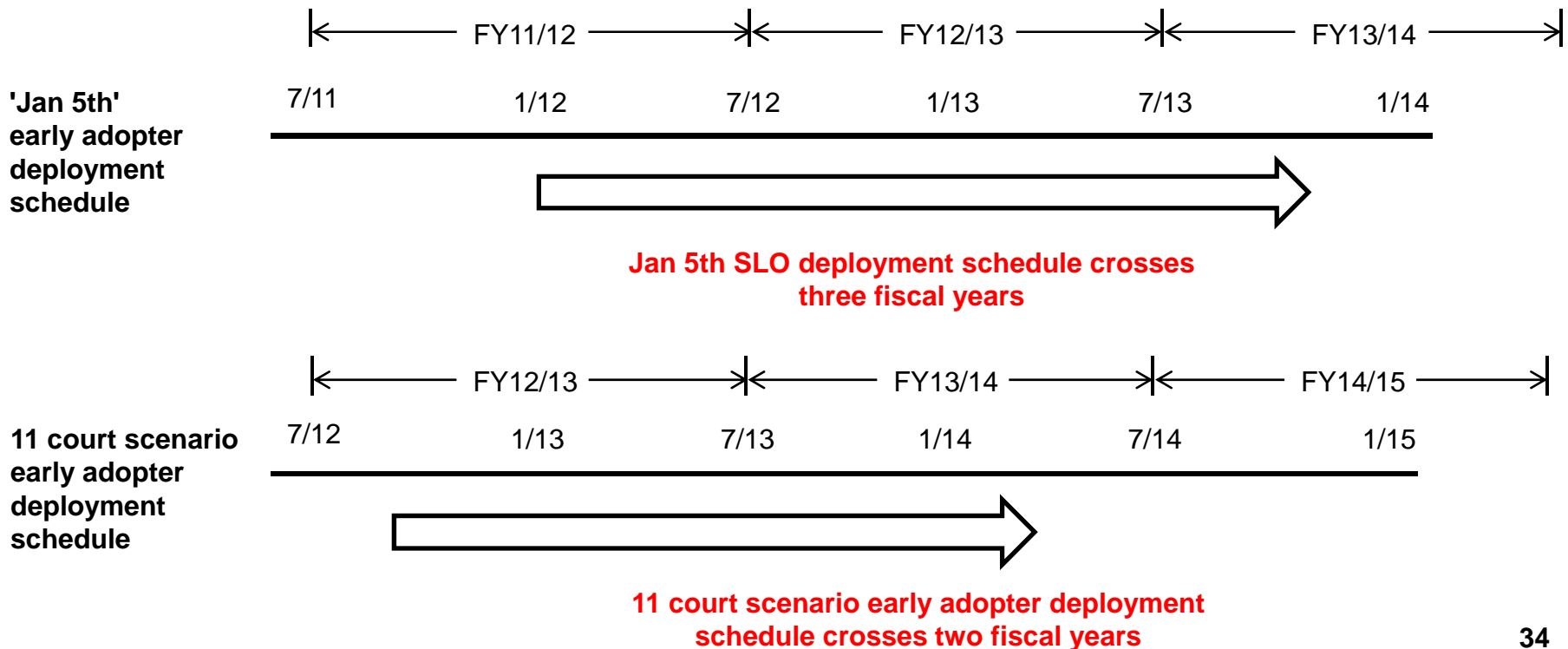
# Validating the AOC Budget Assumptions (contd)

11. Removed consideration of a Deloitte delay cost reimbursement from the budget. The AOC is due approximately \$16m in delay cost reimbursement from Deloitte as a result of agreements relating to their CCMS V4 contract. The AOC's 'Jan 5th' early adopter budget assumed that the reimbursement amount would be renegotiated for support services or applied to Deloitte fees, so reducing the total amount of the early adopter budget from \$116,409,653 to \$102,809,653 (which was the total amount presented in the 'Jan 5th' budget). Grant Thornton has not assumed that this reimbursement amount will be applied to early adopter deployment costs, and is therefore presenting our revised early adopter budget without any assumed reimbursement-related cost reductions.

As Grant Thornton translated the AOC 'Jan 5th' early adopter budget into the State EAW format, we also applied all validated and revised assumptions to produce a revised early adopter budget in EAW format. The final modification that we made was to shift the dates of the deployment to match the recommended deployment timeline as shown in Section 2 above. That shift is presented on the following page.

# Translating deployment dates

As shown below, the AOC 'Jan 5th' early adopter deployment schedule assumed a start date of Jan, 2012 and a deployment date of October, 2013. By contrast, Grant Thornton's 11 court deployment scenario has the early adopter deployment beginning in September, 2012 and deploying February, 2014 (note that our scenario assumes that CCMS standard configuration activities are complete prior to September, 2012). The most significant impact of this shift is that while the 'Jan 5th' budget crosses three fiscal years, the Grant Thornton schedule only crosses two fiscal years.



# Translating deployment dates (contd)

As shown on the previous page, while the AOC 'Jan 5th' schedule crossed through three fiscal years (FY 11/12, FY 12/13 and FY 13/14) the Grant Thornton revised early adopter schedule only crosses two fiscal years (FY 12/13 and FY 13/14). Additionally, for certain elements of the AOC 'Jan 5th' budget, the AOC assumed a full year's worth of cost in each of the three fiscal years. For example, both the 'PMO Hosting' and 'PMO Professional Service' line items assume a full year of cost in FY 13/14 (\$2,608,200 and \$21,778,614 respectively). However, the early adopter deployment does not take up the full FY 13/14 fiscal year. In the AOC 'Jan 5th' budget the deployment is complete in October, 2013 (only ¼ of the way through FY 13/14), while in the Grant Thornton revised early adopter budget the deployment is complete in February, 2014 (2/3 of the way through FY 13/14).

This reflects the fact that there are two ways to view the early adopter figures:

1. As a **budget request**, where all funds necessary to keep CCMS in operation for the fiscal years in question are included. For the 'Jan 5th' budget, this means all resources necessary to fund CCMS for FY 11/12, 12/13 and 13/14. This by necessity includes funds for M&O for CCMS after the early adopter court goes live. This is the approach taken by the AOC in constructing their 'Jan 5th' budget estimate. This approach answers the question *"How much must be appropriated each year to implement CCMS V4 at San Luis Obispo and keep CCMS operational through FY 13/14?"*
2. As a **cost estimate**, where only those resources necessary to place the early adopter court into production would be included. Any costs after that would not be included in the estimate. This approach answers the question *"How much will it cost to implement CCMS at San Luis Obispo?"*

Both approaches are valid ways to view the early adopter budget, but the two approaches result in very different numbers. Grant Thornton presents our estimate of the early adopter budget from both perspectives on the following pages.

# Summary of differences between AOC 'Jan 5th' budget and Grant Thornton budget

The Grant Thornton early adopter deployment budget differs from the AOC 'Jan 5th' budget in the following ways.

AOC 'Jan 5th' early adopter budget	Grant Thornton early adopter budget	Impact on early adopter budget
Deployment Support and Product Application Support hosting fees based on AOC deployment schedule	Deployment Support and Product Application Support hosting fees based on Grant Thornton deployment schedule	-\$7,227,054
No IPOC/IV&V budgeted	IPOC/IV&V budgeted	+\$1,695,650
Deloitte hosting at Spring Valley used old cost data	Deloitte hosting at Spring Valley uses new cost data based on transfer of hosting to AOC	-\$1,264,867
Deloitte M&O professional services estimate used data based on V3 deployment at Orange, San Diego and Alhambra (LA)	Deloitte M&O professional services estimate based on minimum sizing for team to support San Luis Obispo, scaling to take on additional users later	-\$17,626,122
Risk contingency approximately 10% of professional services fee and 3.5% CCTC hosting fees	Risk contingency approximately 10% of professional services fee and 3.5% CCTC hosting fees	-\$1,790,950 (due to difference in total fees subject to contingency)
Budget for CCMS V4 Release 1 assumed covered by Deloitte negotiated settlement	Budget for CCMS V4 Release 1 explicitly included	+\$5,000,000
Budget assumed full fiscal year of costs for certain categories even though deployment activities did not last for full year	Budget includes costs only for duration of early adopter court deployment	-\$25,156,005

# Summary of early adopter budget analysis

As described above, Grant Thornton independently validated the AOC's 'Jan 5<sup>th</sup>' early adopter budget estimate. We translated the AOC budget format into the State EAW format, and validated (and in some cases revised) the assumptions upon which the budget was based. We also translated the estimated deployment dates to match the Grant Thornton deployment timeline, and identified a significant difference in the budget amount depending on whether full fiscal year figures were used, or whether only the costs to implement the early adopter court were used. The following figure presents Grant Thornton's summary assessment of the early adopter budget, showing the budget both from a full fiscal year perspective and from an implementation cost-only perspective.

Early Adopter Budget	FY11/12	FY12/13	FY13/14	Total	Notes
AOC Jan 5 <sup>th</sup> budget.	\$12,824,359	\$45,507,799	\$44,477,496	\$102,809,653	Total amount required through FY 13/14 based on AOC assumptions at time Jan 5 <sup>th</sup> budget was constructed.
Grant Thornton estimate, full fiscal year amounts.	\$203,313	\$30,591,976	\$50,801,021	\$81,596,310	Total amount required through FY 13/14 based on Grant Thornton assumptions.
Grant Thornton estimate, only amount required to place CCMS V4 into production at early adopter court.	\$203,313	\$30,591,976	\$25,645,016	\$56,440,305	Total amount required to implement CCMS V4 at San Luis Obispo in February 2014. Does not include any M&O costs after February 2014.

# Interpreting the early adopter deployment budget

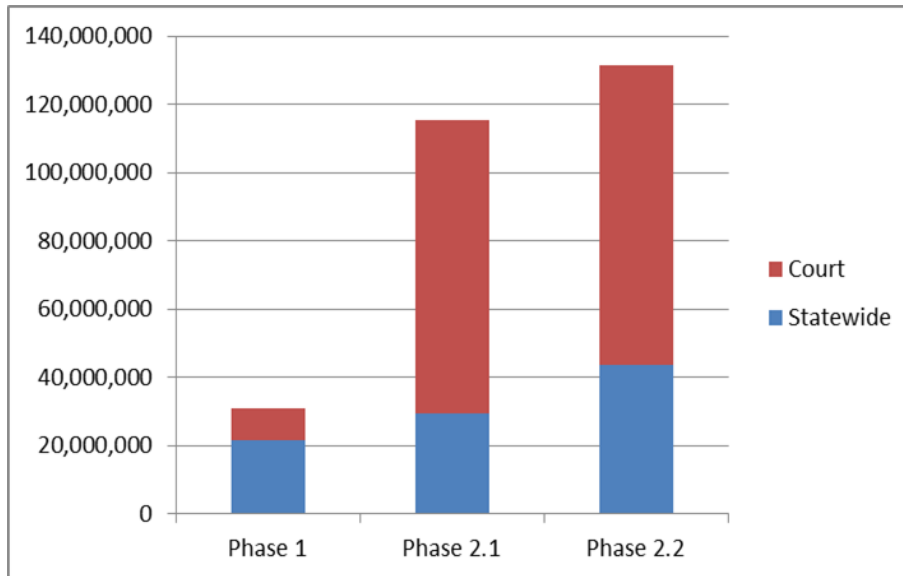
The early adopter budget includes four major categories of costs. In the following, the Grant Thornton early adopter budget estimate through deployment of San Luis Obispo (i.e. including no M&O costs) is used:

	One time	Continuing
Court level	<p>Costs related to deploying at a specific court that end when the court is deployed (example: consultant costs to train staff at San Luis Obispo on CCMS V4).</p> <p><b>\$9,447,348</b></p>	<p>Costs related to deploying at a specific court that continue indefinitely (example: court staff costs to train newly hired employees on CCMS V4 once in M&amp;O).</p> <p><b>\$0</b></p>
Statewide	<p>Costs that support multiple court deployments and that end when all courts are deployed (example: costs to install and configure the shared Training environment at the CCTC).</p> <p><b>\$16,390,252</b></p>	<p>Costs that support multiple courts and that continue indefinitely (example: AOC program management office staff).</p> <p><b>\$30,602,705</b></p>

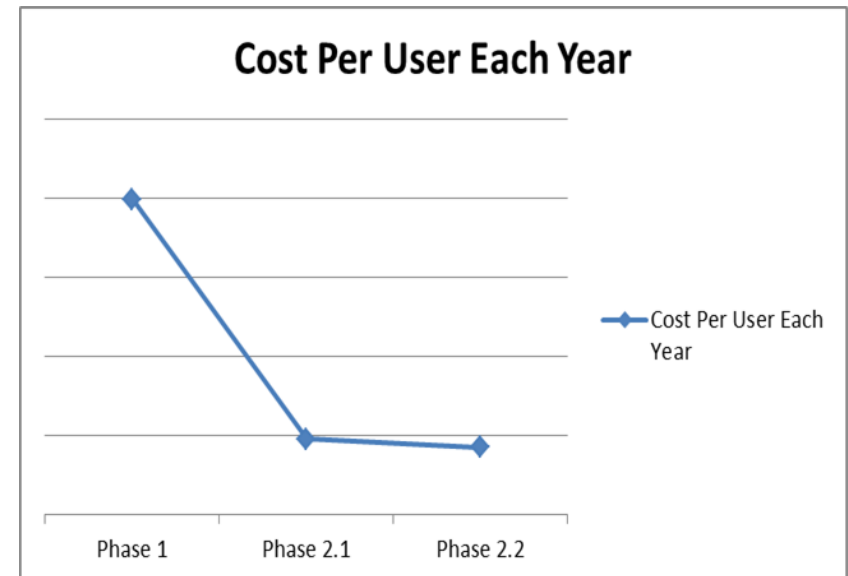


# Interpreting the early adopter deployment budget (contd)

Because San Luis Obispo will be the first court to be deployed, the San Luis Obispo deployment budget includes a number of one-time Statewide costs that will not be required for subsequent court deployments. Also, the proportion of total statewide costs to total cost-level costs will be much greater than for subsequent courts. The figures below illustrate this effect.



**Ratio of Court-level to Statewide costs as deployments continue**



**Change in cost per user as additional courts are implemented each year**

# Early adopter deployment budget analysis conclusions

Grant Thornton conducted an independent assessment of the AOC's 'Jan 5th' early adopter budget. The results of our analysis can be summarized as:

- Many AOC 'Jan 5th' budget assumptions were validated as reasonable and the related budget figures required no change other than to reformat the figures into the State EAW format.
- Some assumptions were based on out-of-date data and were updated to reflect more current data on items such as contract pricing.
- Grant Thornton disagreed with some of the assumptions (e.g., the number of Deloitte staff required for M&O) and we therefore made changes to the related budget items based on our own assumptions.
- Some required costs (i.e., IPOC/IV&V and CCMS V4 Release 1 completion) were not included and were therefore added by Grant Thornton.
- The AOC 'Jan 5th' budget included costs for months during FY13/14 that were after the completion of San Luis Obispo deployment (i.e., these are no longer deployment costs but instead production M&O costs). We created a version of the budget that restricted our costs to only the time period during which the San Luis Obispo court deployment was ongoing. This had the effect of significantly reducing the deployment budget amount.
- As a result of the above, we estimate that approximately \$56,440,305 will be required to deploy San Luis Obispo on CCMS V4. Of this amount, approximately \$46,992,957 will be used to create the statewide foundation for future court deployments, while \$9,447,348 will be used for court-specific deployment activities.
- Given the large cost involved in deploying San Luis Obispo on CCMS V4 (far larger than would be required for a stand-alone CMS deployment), deployment of San Luis Obispo on CCMS V4 can only be justified if the Judicial Branch also intends to deploy multiple additional courts on the statewide CCMS V4 infrastructure.

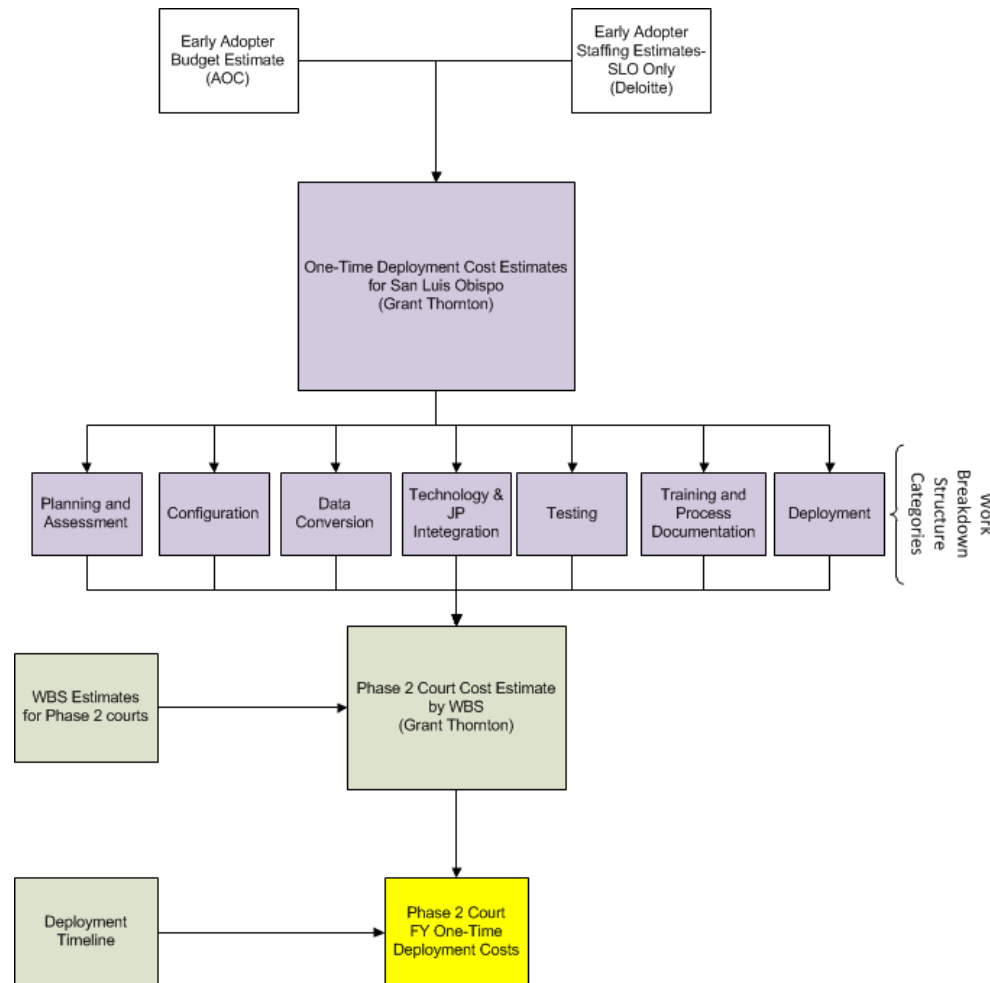
## 3.2 Phase 2 Court Deployment Cost Analysis

- 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions
- 3.2.2 One-time Statewide Deployment Cost Estimates and Assumptions
- 3.2.3 Continuing IT Cost Estimates and Assumptions

# 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions

This figure illustrates the approach by which Grant Thornton developed the one-time CCMS deployment IT cost estimates for the Phase 2 courts.

The following slides describes the steps in this approach and how Grant Thornton followed the approach to develop the one-time IT cost estimates for the CCMS V4 deployment.



## 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions (contd)

The major steps carried out by Grant Thornton to develop the one-time IT costs for the CCMS V4 deployment were as follows:

- **Develop One-Time deployment cost estimate for San Luis Obispo :**
  - As described in subsection 3.1 above, Grant Thornton leveraged the AOC 'Jan 5th' early adopter budget materials as well as other readiness assessment materials from Deloitte to develop a revised early adopter deployment cost estimate.
  - Our estimate of the one-time deployment costs for San Luis Obispo (\$9,912,258 ) was used as a foundation upon which to base all our other Phase 2 cost estimates.
- **Develop a Work Breakdown Structure (WBS) to support cost analysis:**
  - Grant Thornton developed a WBS for the one-time deployment activities that reflected the major categories of deployment activity that would drive cost during the deployment. The WBS comprised the following categories of activity:
    - Planning and Assessment
    - Configuration
    - Data Conversion
    - Technology and Justice Partner Integration
    - Testing
    - Process Documentation and Testing
    - Deployment (Cutover)

## 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions (contd)

- **Distribute the early adopter one-time deployment costs by WBS element and by type of staff:**
  - Grant Thornton allocated the early adopter one-time deployment costs across the seven WBS categories and also distributed the costs among the three categories of staff involved in the deployment:
    - **AOC Staff Costs:**
      - Total AOC staff costs for the early adopter deployment are based on AOC 'Jan 5th' estimate of \$2,453,139 for Deployment Support Staff. Based on interviews with the AOC 75% of these costs were considered one-time court deployment costs, while 25% were considered program-level costs.
      - Deployment support staffing costs were allocated across the WBS elements by fiscal year based upon analysis of the anticipated roles of these staff and of the deployment activities planned to occur in each fiscal year.
    - **Court Staff Costs:**
      - Court staff cost estimates were based upon the following:
        - » A Deloitte estimate of the number court staff required during each month of the San Luis Obispo deployment, and of the activities which those staff would support;
        - » An AOC estimates of the average hourly cost of court staff; and
        - » An assumption of 160 hours of work per Full Time Equivalent per month
    - **Contract Workforce (CWF) Costs:**
      - CWF costs were based upon an analysis of AOC's 'Jan 5th' budget documents, including:
        - » Jan 5th estimates by fiscal year for CWF staff in the SLO Deployment Professional Services and Deployment Support Professional Services budget line items; and
        - » An analysis of distribution of CWF costs in the 'SLO\_Only\_Detail- PMO Detail\_10252011.xlsx' worksheet and interviews with AOC management and staff.

## 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions (contd)

Based on the activities described on the prior pages, the following is the resulting distribution of total one-time deployment costs for San Luis Obispo:

WBS Element	Cost Type			
	Court Staff	AOC Staff	CWF	
<b>Planning and Assessment</b>		\$124,190	\$767,257	\$891,446
<b>Configuration</b>	\$665,280	\$165,353	\$1,021,569	\$1,852,202
<b>Data Conversion</b>	\$240,240	\$124,190	\$767,257	\$1,131,686
<b>Technology Support (incl JP Int)</b>	\$246,400	\$164,709	\$1,017,589	\$1,428,698
<b>Testing</b>	\$369,600	\$172,965	\$1,068,596	\$1,611,161
<b>Process Documentation and Training</b>	\$400,400	\$160,493	\$991,543	\$1,552,436
<b>Cutover</b>	\$301,840	\$159,205	\$983,585	\$1,444,629
<b>Total</b>	<b>\$2,223,760</b>	<b>\$1,071,103</b>	<b>\$6,617,395</b>	<b>\$9,912,258</b>

Note:

- While Document Management System (DMS)-related activities are also a part of the WBS structure, Grant Thornton considered the DMS costs to be statewide one-time costs, not court-level one time costs. As such Grant Thornton did not include the DMS costs within its one-time court-level deployment cost estimates.
- San Luis Obispo's data conversion activities are unusual in that no automated conversion of legacy data is required. As such the data conversion costs for San Luis Obispo were assumed to significantly lower than for other comparable courts where automated conversion would be required.

## 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions (contd)

- **One-time costs estimates for the 10 Phase 2 courts are based upon the following:**
  - Based upon the distribution of early adopter deployment one-time costs by year and by WBS element, Grant Thornton developed the following proportional cost allocation model for the Phase 2 courts:

WBS Element	Cost Type		
	Court Staff	AOC Staff	CWF
<b>Planning and Assessment</b>	0.0%	13.9%	86.1%
<b>Configuration</b>	35.9%	8.9%	55.2%
<b>Data Conversion</b>	21.2%	11.0%	67.8%
<b>Technology Support (incl JP Int)</b>	17.2%	11.5%	71.2%
<b>DMS</b>	0.0%	0.0%	100.0%
<b>Testing</b>	22.9%	10.7%	66.3%
<b>Process Documentation and Training</b>	25.8%	10.3%	63.9%
<b>Cutover</b>	20.9%	11.0%	68.1%

- Grant Thornton applied this allocation to the distribution of one-time court costs for each of the Phase 2 courts.



## 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions (contd)

- Grant Thornton then conducted the following activities to develop one-time deployment cost estimates for the Phase 2 courts:
  - **Developed a deployment cost driver matrix:** To better understand the unique circumstances of each court and to understand how such factors might impact different courts, Grant Thornton developed a Deployment Cost Driver Matrix that was organized by court and by WBS category. Within this matrix, we identified San Luis Obispo as the baseline and assigned a cost driver ratio of "1.00" for each cost driver.
  - **Analysis of court factors and attributes:** We then summarized the information by WBS category that we had acquired from courts through site visits, conference calls and through a review available court data. This information included factors such as: court size in relation to San Luis Obispo, current and planned level of Justice Partner integration, use of an existing DMS system, and anticipated level of required local configuration. Based upon this information, we assessed the degree to which the court's specific circumstances might impact its deployment costs for each WBS category. Based upon this assessment, we assigned ratios to each WBS category for each court to indicate the degree to which the court's circumstances might increase or decrease the court's one-time deployment costs in comparison to the San Luis Obispo deployment costs.
  - **Estimate Phase 2 court costs.** The above ratios were multiplied by the baseline costs (i.e. the San Luis Obispo deployment costs) for each WBS element to generate one-time deployment cost estimates for the Phase 2 courts by WBS element.
  - **Allocate costs.** We used the cost allocation model described on the previous page to allocate court one-time cost estimates among the three staff types.
  - **Reformat and incorporate into the EAW.** Upon developing one-time deployment estimates for the Phase 2 courts, Grant Thornton reformatted the costs and incorporated the costs into the EAW format.
- The following pages present the one-time deployment cost estimates for each WBS category, showing the cost driver ratios for each court and the estimates cost by court and by staff type.

## 3.2.1.1 Phase 2 Court Deployment Estimates by WBS Element: Planning and Assessments

	Weighted Ratio	Planning and Assessments			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Fresno</b>	0.2	\$178,289	\$0	\$24,838	\$153,451
<b>Inyo</b>	0.5	\$445,723	\$0	\$62,095	\$383,628
<b>Marin</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Mendocino</b>	0.8	\$668,585	\$0	\$93,142	\$575,442
<b>Orange</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708
<b>San Diego</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708
<b>San Joaquin</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Santa Cruz</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Ventura</b>	0.5	\$445,723	\$0	\$62,095	\$383,628
<b>Alameda</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708

## 3.2.1.2 Phase 2 Court Deployment Estimates by WBS Element: Technology/Justice Partner Integration

	Weighted Ratio	Technology/JP Integration			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	<b>\$1,428,698</b>	\$246,400	\$164,709	\$1,017,589
<b>Fresno</b>	2.0	<b>\$2,857,396</b>	\$492,800	\$329,418	\$2,035,179
<b>Inyo</b>	0.4	<b>\$571,479</b>	\$98,560	\$65,884	\$407,036
<b>Marin</b>	1.0	<b>\$1,428,698</b>	\$246,400	\$164,709	\$1,017,589
<b>Mendocino</b>	0.8	<b>\$1,071,524</b>	\$184,800	\$123,532	\$763,192
<b>Orange</b>	2.5	<b>\$3,571,745</b>	\$616,000	\$411,772	\$2,543,973
<b>San Diego</b>	3.0	<b>\$4,286,094</b>	\$739,200	\$494,126	\$3,052,768
<b>San Joaquin</b>	1.0	<b>\$1,428,698</b>	\$246,400	\$164,709	\$1,017,589
<b>Santa Cruz</b>	1.0	<b>\$1,428,698</b>	\$246,400	\$164,709	\$1,017,589
<b>Ventura</b>	1.0	<b>\$1,428,698</b>	\$246,400	\$164,709	\$1,017,589
<b>Alameda</b>	3.0	<b>\$4,286,094</b>	\$739,200	\$494,126	\$3,052,768

## 3.2.1.3 Phase 2 Court Deployment Estimates by WBS Element: Configuration

	Weighted Ratio	Configuration			
		Total	Court Staff	AOC Staff	CFW
<b>San Luis Obispo</b>	1.0	\$1,852,202	\$665,280	\$165,353	\$1,021,569
<b>Fresno</b>	0.8	\$1,389,151	\$498,960	\$124,015	\$766,176
<b>Inyo</b>	0.5	\$926,101	\$332,640	\$82,676	\$510,784
<b>Marin</b>	0.5	\$926,101	\$332,640	\$82,676	\$510,784
<b>Mendocino</b>	0.5	\$926,101	\$332,640	\$82,676	\$510,784
<b>Orange</b>	1.5	\$2,778,302	\$997,920	\$248,029	\$1,532,353
<b>San Diego</b>	2.0	\$3,704,403	\$1,330,560	\$330,706	\$2,043,137
<b>San Joaquin</b>	1.0	\$1,852,202	\$665,280	\$165,353	\$1,021,569
<b>Santa Cruz</b>	0.5	\$926,101	\$332,640	\$82,676	\$510,784
<b>Ventura</b>	1.0	\$1,852,202	\$665,280	\$165,353	\$1,021,569
<b>Alameda</b>	1.0	\$1,852,202	\$665,280	\$165,353	\$1,021,569

## 3.2.1.4 Phase 2 Court Deployment Estimates by WBS Element: Conversion

	Weighted Ratio	Conversion			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$1,131,686	\$240,240	\$124,190	\$767,257
<b>Fresno</b>	1.0	\$1,131,686	\$240,240	\$124,190	\$767,257
<b>Inyo</b>	1.0	\$1,131,686	\$240,240	\$124,190	\$767,257
<b>Marin</b>	2.0	\$2,263,372	\$480,480	\$248,379	\$1,534,513
<b>Mendocino</b>	1.0	\$1,131,686	\$240,240	\$124,190	\$767,257
<b>Orange</b>	6.0	\$6,790,117	\$1,441,440	\$745,137	\$4,603,540
<b>San Diego</b>	8.0	\$9,053,489	\$1,921,920	\$993,516	\$6,138,053
<b>San Joaquin</b>	3.0	\$3,395,058	\$720,720	\$372,569	\$2,301,770
<b>Santa Cruz</b>	2.0	\$2,263,372	\$480,480	\$248,379	\$1,534,513
<b>Ventura</b>	3.0	\$3,395,058	\$720,720	\$372,569	\$2,301,770
<b>Alameda</b>	4.0	\$4,526,745	\$960,960	\$496,758	\$3,069,027

## 3.2.1.5 Phase 2 Court Deployment Estimates by WBS Element: Testing

	Weighted Ratio	Testing			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	<b>\$1,611,161</b>	\$369,600.00	\$172,964.82	\$1,068,595.88
<b>Fresno</b>	1.2	<b>\$1,963,746</b>	\$450,483	\$210,816	\$1,302,447
<b>Inyo</b>	0.6	<b>\$960,020</b>	\$220,228	\$103,062	\$636,729
<b>Marin</b>	1.0	<b>\$1,686,226</b>	\$386,820	\$181,023	\$1,118,382
<b>Mendocino</b>	0.7	<b>\$1,142,600</b>	\$262,112	\$122,663	\$757,825
<b>Orange</b>	3.0	<b>\$4,797,848</b>	\$1,100,626	\$515,069	\$3,182,154
<b>San Diego</b>	3.9	<b>\$6,223,245</b>	\$1,427,611	\$668,091	\$4,127,542
<b>San Joaquin</b>	1.5	<b>\$2,437,582</b>	\$559,181	\$261,685	\$1,616,717
<b>Santa Cruz</b>	1.0	<b>\$1,686,226</b>	\$386,820	\$181,023	\$1,118,382
<b>Ventura</b>	1.5	<b>\$2,437,582</b>	\$559,181	\$261,685	\$1,616,717
<b>Alameda</b>	2.4	<b>\$3,894,110</b>	\$893,308	\$418,049	\$2,582,753

## 3.2.1.6 Phase 2 Court Deployment Estimates by WBS Element: Training and Process Documentation

	Weighted Ratio	Training			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	<b>\$1,552,436</b>	<b>\$400,400</b>	<b>\$160,493</b>	<b>\$991,543</b>
<b>Fresno</b>	2.5	<b>\$3,881,091</b>	<b>\$1,001,000</b>	<b>\$401,232</b>	<b>\$2,478,858</b>
<b>Inyo</b>	0.1	<b>\$194,055</b>	<b>\$50,050</b>	<b>\$20,062</b>	<b>\$123,943</b>
<b>Marin</b>	0.6	<b>\$931,462</b>	<b>\$240,240</b>	<b>\$96,296</b>	<b>\$594,926</b>
<b>Mendocino</b>	0.4	<b>\$620,975</b>	<b>\$160,160</b>	<b>\$64,197</b>	<b>\$396,617</b>
<b>Orange</b>	7.0	<b>\$10,867,054</b>	<b>\$2,802,800</b>	<b>\$1,123,451</b>	<b>\$6,940,803</b>
<b>San Diego</b>	7.0	<b>\$10,867,054</b>	<b>\$2,802,800</b>	<b>\$1,123,451</b>	<b>\$6,940,803</b>
<b>San Joaquin</b>	1.8	<b>\$2,716,764</b>	<b>\$700,700</b>	<b>\$280,863</b>	<b>\$1,735,201</b>
<b>Santa Cruz</b>	0.8	<b>\$1,241,949</b>	<b>\$320,320</b>	<b>\$128,394</b>	<b>\$793,235</b>
<b>Ventura</b>	2.0	<b>\$3,104,873</b>	<b>\$800,800</b>	<b>\$320,986</b>	<b>\$1,983,087</b>
<b>Alameda</b>	1.5	<b>\$2,328,654</b>	<b>\$600,600</b>	<b>\$240,739</b>	<b>\$1,487,315</b>

## 3.2.1.7 Phase 2 Court Deployment Estimates by WBS Element:Deployment (Cutover)

	Weighted Ratio	Deployment			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Fresno</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169
<b>Inyo</b>	0.3	\$433,389	\$90,552	\$47,761	\$295,075
<b>Marin</b>	0.5	\$722,315	\$150,920	\$79,602	\$491,792
<b>Mendocino</b>	0.5	\$722,315	\$150,920	\$79,602	\$491,792
<b>Orange</b>	2.5	\$3,611,573	\$754,600	\$398,012	\$2,458,962
<b>San Diego</b>	2.5	\$3,611,573	\$754,600	\$398,012	\$2,458,962
<b>San Joaquin</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Santa Cruz</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Ventura</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169
<b>Alameda</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169



## 3.2.1.8 Phase 2 Court Deployment Estimates by WBS Element: Deployment Total

	Deployment Total			
	Deployment Total	Total Court Staff	Total AOC Staff	Total CWF
<b>San Luis Obispo</b>	\$9,912,258	\$2,223,760	\$1,071,103	\$6,617,395
<b>Fresno</b>	\$14,290,618	\$3,287,163	\$1,532,918	\$9,470,537
<b>Inyo</b>	\$3,630,182	\$0	\$505,729	\$3,124,453
<b>Marin</b>	\$8,849,620	\$1,837,500	\$976,875	\$6,035,244
<b>Mendocino</b>	\$6,283,785	\$1,330,872	\$690,002	\$4,262,910
<b>Orange</b>	\$35,234,376	\$7,713,386	\$3,590,497	\$23,930,493
<b>San Diego</b>	\$41,437,594	\$8,976,691	\$4,156,930	\$28,303,973
<b>San Joaquin</b>	\$14,166,380	\$3,194,121	\$1,528,572	\$9,443,687
<b>Santa Cruz</b>	\$9,882,422	\$2,068,500	\$1,088,576	\$6,725,345
<b>Ventura</b>	\$16,864,395	\$3,596,061	\$1,665,805	\$11,602,529
<b>Alameda</b>	\$23,468,799	\$4,463,028	\$2,282,463	\$16,723,308
	<b>\$184,020,428</b>	<b>\$38,691,082</b>	<b>\$19,089,471</b>	<b>\$126,239,875</b>

In addition to the estimated one-time court deployment costs above, Grant Thornton also added a 10% risk contingency for each court deployment to create to total estimated one-time deployment costs for the Phase 2 courts.

## 3.2.2 One-time Statewide Cost Estimates and Assumptions

One-time Statewide IT costs for the CCMS V4 deployment comprise those costs that are related to statewide assets and that are incurred during deployment of CCMS but not during M&O on an ongoing basis. The one-time statewide IT costs estimate includes the following elements:

- **CCTC Document Management System Costs.** These include the build-out of the shared DMS environment at the CCTC, and the professional services costs associated with implementing the DMS at the CCTC and integrating the DMS with CCMS.
- **Release 1 of CCMS.** Before CCMS V4 can be deployed at any court, the core software must be brought up-to-date with all legislative changes since the design requirements were 'frozen' during CCMS V4 development . The AOC has 85 legislative changes, 76 enhancements, and 25 bug fixes that they would like to incorporate into the CCMS V4 core software to create a 'CCMS V4 Release 1' that will be ready to implement at the early adopter court. Deloitte is currently completing the design work for these changes under an existing contract, but a new contract for approximately \$5m will be required to apply all these changes to CCMS V4 by November 2012. We assumed that all the estimate \$5m would be expended in FY 12/13.
- **One-time CCTC Hosting Charges.** The fees paid by the AOC for hosting of CCMS at the CCTC include both one-time and continuing elements. The one-time elements are included under this cost category.
- **IPOC/IV&V Contract Costs.** Grant Thornton assumed that an IPOC/IV&V contract would be in place during each year of the deployment, and that the value of the contract would be equal to 5% of total software customization contract costs (both court-level and statewide).

The following page presents the estimated one-time statewide costs by fiscal year.

# 3.2.2 One-time Statewide Cost Estimates and Assumptions (contd)

Statewide Costs	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>One-Time IT Project Costs</b>														
Staff (Salaries & Benefits)	0.0	\$0	2.8	\$211,026	1.9	\$146,008	0.0	\$0	0.0	\$0	0.0	\$0	4.7	\$357,034
Hardware Purchase	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Software Purchase/license	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>														
Software Customization	7.1	\$0	24.2	\$8,521,895	9.0	\$3,173,714	0.0	\$0	0.0	\$0	0.0	\$0	40.2	\$11,695,609
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IV&V Services	0.0	\$0	3.0	\$1,061,588	1.8	\$634,062	0.0	\$2,734,352	0.0	\$1,457,951	0.0	\$182,461	4.8	\$6,070,414
Other Contract Services *	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>TOTAL Contract Services</b>	<b>7.1</b>	<b>\$0</b>	<b>27.2</b>	<b>\$9,583,482</b>	<b>10.8</b>	<b>\$3,807,777</b>	<b>0.0</b>	<b>\$2,734,352</b>	<b>0.0</b>	<b>\$1,457,951</b>	<b>0.0</b>	<b>\$182,461</b>	<b>45.0</b>	<b>\$17,766,023</b>
<b>Data Center Services</b>	0.0	\$192,218	0.0	\$476,601	0.0	\$2,959,710	0.0	\$1,658,368	0.0	\$1,691,323	0.0	\$567,436	0.0	\$7,545,655
<b>Agency Facilities</b>	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Other - Contingency costs (10%)</b>	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Total One-time IT Costs</b>	<b>7.1</b>	<b>\$192,218</b>	<b>30.0</b>	<b>\$10,271,109</b>	<b>12.7</b>	<b>\$6,913,495</b>	<b>0.0</b>	<b>\$4,392,720</b>	<b>0.0</b>	<b>\$3,149,274</b>	<b>0.0</b>	<b>\$749,897</b>	<b>49.8</b>	<b>\$25,668,712</b>

## 3.2.3 Continuing IT Cost Estimates and Assumptions

Continuing IT costs for the CCMS V4 deployment comprise those ongoing maintenance and operations (M&O) costs that will be required indefinitely once the system is in production, plus any current M&O costs (such as AOC support for the V2 system) that can be discontinued once those costs are no longer incurred. The continuing IT costs estimate includes the following elements:

- **Statewide CCMS M&O costs.** These include hosting for CCMS at the CCTC, Deloitte's M&O contract for CCMS V4, and ongoing AOC staff costs to support program management activities. These costs were based on the revised early adopter budget estimate described in subsection 3.1.
- **Continuing M&O of current CMS.** Until each court implemented CCMS V4 they will be required to continue to operate and maintain their current CMS. The costs of this activity are captured here through the date of full CCMS V4 implementation at each court.
- **Continuing AOC support of V2 and V3.** The AOC currently makes supplemental payments to support the operations of V2 and V3. These payments were assumed to continue until V2 and V3 are retired based on the deployment timeline presented in subsection 2.3.
- **Court-level CCMS M&O costs.** Since all CCMS instances are assumed to run at the CCTC, there are few operations and maintenance costs that must be paid for by the courts. Our analysis assumes no chargeback of CCMS costs by the AOC to the courts. Court CCMS M&O costs are limited to out of pocket local expenses such as training new staff on CCMS, participating in the CCMS governance process with the AOC, and local testing of new changes to CCMS. We assume that these costs are equal to 10% of the annual court staff costs expended by each court to maintain its current CMS' in the last year prior to CCMS deployment.

The following pages presents the estimated continuing IT costs for each year of the CCMS V4 deployment.

## 3.2.3 Continuing IT Cost Estimates and Assumptions (contd)

	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>										
Staff (Salaries & Benefits)	117.0	\$12,608,778	144.8	\$15,208,533	142.1	\$15,466,144	111.5	\$14,511,739	102.9	\$5,938,060
Hardware Lease/Maintenance	0.0	\$1,344,524	0.0	\$3,612,196	0.0	\$1,014,091	0.0	\$871,300	0.0	\$3,000,840
Software Maintenance/licenses	0.0	\$2,802,491	0.0	\$2,819,665	0.0	\$2,890,111	0.0	\$2,776,979	0.0	\$1,227,368
Telecommunications	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583
<b>Contract Services</b>										
Software Customization	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583
Project Management	0.0	\$0	0.0	\$173,198	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IT&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$2,345,766	13.7	\$11,459,242	14.5	\$12,053,050	0.0	\$18,040,015	0.0	\$31,638,701
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$3,770,766</b>	<b>13.7</b>	<b>\$13,064,439</b>	<b>14.5</b>	<b>\$13,670,047</b>	<b>0.0</b>	<b>\$19,664,012</b>	<b>0.0</b>	<b>\$32,664,282</b>
Data Center Services	0.0	\$3,464,801	0.0	\$5,839,226	0.0	\$11,319,716	0.0	\$12,871,736	0.0	\$10,850,308
Agency Facilities	0.0	\$77,614	0.0	\$677,849	0.0	\$489,031	0.0	\$675,123	0.0	\$616,650
Other	0.0	\$25,232,928	0.0	\$19,794,367	0.0	\$17,090,435	0.0	\$16,664,616	0.0	\$12,512,028
<b>Total Continuing IT Costs</b>	<b>117.0</b>	<b>\$50,726,903</b>	<b>158.6</b>	<b>\$62,448,275</b>	<b>156.6</b>	<b>\$63,378,575</b>	<b>111.5</b>	<b>\$69,481,505</b>	<b>102.9</b>	<b>\$67,657,119</b>

# 3.2.3 Continuing IT Cost Estimates and Assumptions (contd)

	FY 2016/17		FY 2017/18		FY 2018/19		FY 2019/20		FY 2020/21		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>												
Staff (Salaries & Benefits)	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	618.3	\$161,464,158
Hardware Lease/Maintenance	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$9,842,952
Software Maintenance/Licenses	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$12,516,613
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$6,589,583
<b>Contract Services</b>												
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$6,589,583
Project Management	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$1,597,174
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IT&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	28.2	\$82,127,975
<b>TOTAL Contract Services</b>	0.0	\$1,496,237	0.0	\$1,496,237	0.0	\$1,496,237	0.0	\$1,496,237	0.0	\$1,496,237	28.2	\$90,314,732
Data Center Services	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$91,748,999
Agency Facilities	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$5,618,770
Other	0.0	\$4,369,016	0.0	\$331,822	0.0	\$331,822	0.0	\$331,822	0.0	\$331,822	0.0	\$36,990,680
<b>Total Continuing IT Costs</b>	<b>0.0</b>	<b>\$35,508,577</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>646.6</b>	<b>\$475,086,487</b>

# 4.0 Benefit Analysis

- 4.1 Validation of Benefit Analysis Tools and Drivers
- 4.2 Program Cost Analysis
- 4.3 Qualitative Benefits

# 4.1 Validation of Benefit Analysis and Drivers

This subsection presents our analysis of the quantitative and qualitative program benefits that may result to trial court business processes as a result of deploying the CCMS V4 system to the 11 selected courts. Within our quantitative analysis, we: a) calculate the workload costs associated with performing key administrative business processes; b) estimate these costs over a ten-year period; c) calculate the impact of the V4 solution on these business processes; then d) compare these future costs to current costs to estimate the net impact. A net benefit will result if it is determined that the cost projections associated with the CCMS V4 environment result in a net reduction of program costs, while a net cost will result if it is determined that the cost projections result in a net increase of program costs. The following formula illustrates our comparative analysis of the two projections:

$$\textit{Total Baseline Program Cost Projections} - \textit{Total V4 Program Cost Projections} = \textit{Net Benefit}$$

Our analysis of the program costs comprised the following steps:

- 1. Select key business processes.** Grant Thornton identified a number of key business processes by which to quantify workload costs for the selected 11 courts. While we did not include an exhaustive set of business processes, we did select those processes that court staff indicated were heavily labor intensive and that contributed significantly to workload activities.
- 2. Analyze the deployment schedule.** The sequence and calculation of program cost impacts over the period of our analysis was based upon our recommended deployment schedule.
- 3. Validate program cost driver assumptions.** Grant Thornton developed and validated the cost drivers that determine the magnitude and sequencing of cost impacts over the period of analysis .

Each of these steps is described in the following pages.



# Review and Validate the Applicability of Selected Business Process

Within our analysis, Grant Thornton worked with AOC and trial court staff to identify and quantify key business processes within the trial court administrative environment. The following describes the business processes that have been included within our analysis:

- **Case initiation.** Case Initiation is the start of the case management process and describes the activities associated with entering a new case filing into the case management system environment. The basis of our analysis of this process comes from a review of 2009/10 actual case filing data from the AOC annual statistical report. Estimates of time required to perform case initiation activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **Fee and penalty payment processing.** Fee and penalty payment processing describes the activities associated with assessing and processing fees and penalties for case related issues. The basis of our analysis of this process comes from a review of actual criminal and civil filing payment data provided by AOC. Estimates of time required to perform payment activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **Calendaring.** Calendaring describes the activities associated with scheduling case proceedings, which requires court staff to expend extensive time manually coordinating the schedules of various stakeholders within the judiciary. The basis of our analysis of this process comes from a review of 2009/10 actual case filing data from the AOC annual statistical report. Estimates of time required to perform calendaring activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.

# Review and Validate the Applicability of Selected Business Process (Cont'd)

- **Appeals preparation.** Appeals preparation describes the activities associated with preparing a disposed case for the appeals process. The basis of our analysis of this process comes from our review of 2009/10 actual appeals data from the 2011 AOC annual statistical report. During interviews with trial court staff, we asked them to estimate the average amount of time required to prepare cases for appeal. This information became the basis for our analysis.
- **Background checks.** Background checks describe the activities associated with completing background checks of individuals for justice partners and commercial vendors. The basis of our analysis of this process comes from our review and analysis of survey questions related to conducting background checks. Survey recipients were asked to provide the number of background checks that they perform and also the estimated amount of time required to complete such tasks. Based upon the responses that we received from a subsection of the courts we developed a proportional estimate for selected courts.
- **Administrative inquiries.** Administrative inquiries describe the activities associated with filling requests for the copy and review of court related documents. The basis of our analysis of this process comes from our review and analysis of survey questions related to copying and review costs. Survey recipients were asked to estimate their annual costs for filling requests and document review requests. Based upon the responses that we received from a subsection of the courts staff, we developed a proportional estimate for selected courts.

# Analysis of Deployment Schedule

Our recommended deployment schedule was used to estimate when program cost benefits are likely to be realized and to calculate the proportion of case filings that would be impacted by the V4 system throughout the deployment lifecycle. The recommended ten Phase 2 courts, plus the San Luis Obispo early adopter court collectively account for 27.4% of all court case filings.

Of this 27.4%, each Phase within the CCMS V4 deployment will migrate a certain percentage of the case volume into the CCMS V4 environment. The cumulative percentage of the total impacted case filings to be migrated to CCMS V4 at each Phase is shown below.

<b>CCMS V4 Deployment Rollout Schedule:</b>		
<b>Phase</b>	<b>Period:</b>	<b>% of Impacted Case Filings</b>
Phase 1:	FY 2013/14	2.62%
Phase 2.1:	FY 2014/15	21.95%
Phase 2.2	FY 2015/16	89.92%
Phase 2.2(a)	FY 2016/17	100.00%

# Validate Program Cost Driver Assumptions

Grant Thornton established program cost drivers to estimate the impact of CCMS V4 on legacy program activities. The program cost drivers determine the magnitude of the program impact. The following presents the program cost drivers that we included within our analysis, along with the related assumptions:

- **CCMS Program Costs - Caseload Initiation - Benefit Accrual Calculation:** Caseload initiation benefits were calculated in the following manner:
  - Based upon discussions with court staff, Grant Thornton developed percentage estimates to reflect the proportion of case filings that are currently performed in a paper-based manner. We then developed percentage estimates to reflect the proportions of case filings that would be performed in a paper-based manner within the V4 environment. V4 percentage estimates are based on interviews with several court staff members, who described their V3 experiences, their anticipated V4 experiences, and their experiences in implementing other case management systems.
  - To estimate the baseline number of paper-based filings Grant Thornton multiplied the total caseload filings of the selected courts by their respective paper-based percentages, then projected these annual estimates for the duration of the analysis period.
  - To estimate the benefits of the V4 system on case initiation filings, Grant Thornton multiplied the total caseload filings of the selected courts by their respective V4 paper-based percentages, then projected these annual estimates for the duration of the analysis period. Based on interviews with courts about their recent case management implementation experiences, Grant Thornton assumed that benefits for each deployment phase begin to accrue 12 months after the end of the phase.
  - For baseline case filings and V4-impacted case filings, Grant Thornton estimated workload costs by estimating the labor costs, per minute, for manually processing paper-based case filings. Labor costs (per minute) are based upon salary and benefit information received from the AOC.
  - Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by the AOC.
  - Marginal storage costs was estimated based upon storage cost information acquired from court staff during site visits and interviews.

# Validate Program Cost Driver Assumptions- Cont'd

- **CCMS Program Costs - Fee and Penalty Payment Processing:** Fee payment data is based upon projections of actuals from Paid Civil First Fee and Criminal Convictions Data. Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by the AOC.
- **CCMS Program Costs – Calendaring:** 2009/10 actual case filings were taken from the AOC's 2011 Court Statistics Report. Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **CCMS Program Costs - Appeals Preparation:** Appeals data is based upon the AOC's 2011 Court Statistics Report. Estimates of work effort (in minutes) are based upon interviews with trial court staff.
- 
- **CCMS Program Costs - Background Checks:** The number of projected background checks is based upon the proportional projection from survey responses on background checks conducted during our original CBA and were validated during interviews with selected courts during court site visits and conference calls. The estimate of work effort (in minutes) is based upon court interviews.
- **CCMS Program Costs- Administrative Inquiries:** The number of projected administrative inquiries is based upon a proportional projection from survey responses on administrative activities. The estimate of work effort (in minutes) is based upon court interviews.

## 4.2 Program Cost Analysis

Within this subsection, we present our analysis of the program cost projections for the following scenarios:

- **Baseline Program Cost Projections:** Baseline program cost projections reflect our estimate of the program costs that will accrue within the current case management environment at the Phase 2 courts over a ten-year period.
- **CCMS V4 Program Cost Projections:** CCMS V4 program cost projections reflect our estimate of the impact of the CCMS V4 system on trial court program costs

Upon calculating these two projections, we compare the projections to determine if the cost reductions associated with the CCCMS V4 system result in a net reduction of program costs. A net benefit will result if it is determined that the cost projections associated with the CCMS V4 environment result in a net reduction of program costs, while a net cost will result if it is determined that the cost projections result in a net increase of program costs.

The following slides present the findings of our analysis.

# Baseline Program Cost Projections

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Totals
<b>Case Initiation</b>	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$26,545,767	\$265,457,667
<b>Fee/Penalty Payment</b>	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$14,815,423	\$148,154,232
<b>Calendaring</b>	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$22,720,516	\$227,205,155
<b>Appeals Preparation</b>	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$991,820	\$9,918,203
<b>Background Checks</b>	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$231,185	\$2,311,848
<b>Administrative Inquiries</b>	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$4,148,765	\$41,487,652
<b>Total Program Costs</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$694,534,758</b>
<b>Case Filing Storage Costs</b>	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	\$1,690,234	<b>\$16,902,340</b>

## Baseline program cost project assumptions:

- Program costs are held constant throughout the duration of the analysis period.

# CCMS V4 Deployment Program Cost Projections

	2011/12	2012/13	Phase 1 2013/14	Phase 2.1 2014/15	Phase 2.2 2015/16	Phase 2.2 2016/17	2017/18	2018/19	2019/20	2020/21	Totals
<b>Case Initiation</b>	\$26,545,767	\$26,545,767	\$25,934,939	\$24,838,926	\$18,563,933	\$26,406,221	\$27,640,690	\$27,640,690	\$27,640,690	\$27,640,690	\$259,398,314
<b>Fee/Penalty Payment</b>	\$14,815,423	\$14,815,423	\$14,815,423	\$12,375,941	\$5,579,394	\$3,891,409.65	\$3,703,855.79	\$3,703,856	\$3,703,856	\$3,703,856	\$81,108,438
<b>Calendaring</b>	\$22,720,516	\$22,720,516	\$22,720,516	\$18,729,986	\$6,376,810	\$4,727,373.81	\$4,544,103.10	\$4,544,103	\$4,544,103	\$4,544,103	\$116,172,129
<b>Appeals Preparation</b>	\$991,820	\$991,820	\$991,820	\$828,509	\$322,958	\$255,455.38	\$247,955.08	\$247,955	\$247,955	\$247,955	\$5,374,204
<b>Background Checks</b>	\$231,185	\$231,185	\$231,185	\$193,118	\$75,279	\$59,544.46	\$57,796.20	\$57,796	\$57,796	\$57,796	\$1,252,681
<b>Administrative Inquiries</b>	\$4,148,765	\$4,148,765	\$4,148,765	\$3,309,014	\$791,360	\$452,524.90	\$414,876.52	\$414,877	\$414,877	\$414,877	\$18,658,701
<b>Total Program Costs</b>	<b>\$69,453,476</b>	<b>\$69,453,476</b>	<b>\$68,842,648</b>	<b>\$60,275,494</b>	<b>\$31,709,735</b>	<b>\$35,792,529</b>	<b>\$36,609,277</b>	<b>\$36,609,277</b>	<b>\$36,609,277</b>	<b>\$36,609,277</b>	<b>\$481,964,466</b>
<b>Case Filing Storage Costs</b>	\$1,690,234	\$1,690,234	\$1,651,341	\$1,549,232	\$1,006,336	\$980,395	\$980,395	\$980,395	\$980,395	\$980,395	<b>\$12,489,353</b>

## CCMS V4 deployment cost projection assumptions:

- Benefits begin to accrue a year after deployment
- Phase 1 - 2.62 % of Phase 2 court case filings are impacted in FY 2014/15
- Phase 2 - 29.95% of Phase 2 court case filings are impacted in FY 2015/16
- Phase 2.2 - 89.92 of Phase 2 court case filings are impacted in FY 2016/17
- Phase 2.2 (a) 100% of Phase 2 case filings are impacted in FY 2017/18



# CCMS V4 Deployment Program Cost Projections

Based on the above analysis, Grant Thornton estimates that deployment of CCMS V4 to the Phase 2 courts and to San Luis Obispo will result in a net decrease in program costs through FY20/21 of \$216,983,279. From FY2017/18 onward the deployment of CCMS V4 to these courts will produce an annual benefit of approximately \$33m. This benefit must be balanced with the cost of deploying and maintaining CCMS V4 versus maintaining the status quo case management system environment. The following section addresses this question.

<b>Business Process</b>	<b>Total Baseline Projection</b>	<b>Total Phase 2 CCMS V4 Projection</b>	<b>Net Reduction/Benefit</b>
Case Initiation	\$265,457,667.40	\$259,398,314	\$6,059,353
Fee/Penalty Payment	\$148,154,231.69	\$81,108,438	\$67,045,794
Calendaring	\$227,205,155.21	\$116,172,129	\$111,033,026
Appeals Preparation	\$9,918,203.04	\$5,374,204	\$4,543,999
Background Checks	\$2,311,847.92	\$1,252,681	\$1,059,167
Administrative Inquiries	\$41,487,652.29	\$18,658,701	\$22,828,951
Case Filing Storage Costs	\$16,902,340.43	\$12,489,353	\$4,412,987
<b>Total Program Costs</b>	<b>\$711,437,097.97</b>	<b>\$494,453,819</b>	<b>\$216,983,279</b>

Net Benefit



## 4.3 Qualitative Benefits

Within this subsection, we discuss the qualitative benefits that may result from the deployment of CCMS V4 to the selected courts. In the previous subsections we have discussed quantifiable benefits that may result from the system. However, there are other benefits that may result, both to the impacted trial courts and the branch as a whole, which may not be quantifiable but are considered important. The following are some of the key qualitative benefits that may result from the deployment of the CCMS V4 System:

- **Promoting equal access to justice.** The implementation of CCMS should help to level the playing field and promote equal access to justice. CCMS was designed to allow the viewing and exchange of trial court case information and associated documentation across local jurisdictional boundaries and the exchange of information at the court-to-county, court-to-state partner, state-to-state, and state-to-federal levels. The statewide data reporting warehouse will enable information to be reported in a consistent manner, allowing for analysis of court performance not currently possible and making the judiciary more accountable to the public.
- **24x7 information access.** Within the current environment, access to paper-based case files is limited to business hours. With the CCMS system, stakeholders will have virtual access to documents whenever they are needed.
- **Visibility across case types.** Within the current case management environment, the limitations of many case management systems make it difficult for judicial staff to access records across case types. Within the CCMS environment, judicial staff will be able to access all impacted offender records across case types, giving judicial officers a comprehensive view of offender activities.

## 4.3 Qualitative Benefits (Contd)

- **More timely information to field officers.** Technological limitations can make it difficult for justice partners and their field staff to maintain up-to-date judicial information on offenders. Within the CCMS business environment, justice partners will be able to access up-to-date court information on offenders, empowering justice partners and their field staff to address justice needs more effectively.
- **Implementation of electronic notifications.** Implementing CCMS would enable courts to send standard notices to frequent court users electronically. This will reduce costs and improve the timeliness of notifications.
- **Earlier receipt of payment for traffic cases.** In the current environment, traffic cases may often not be paid promptly by offenders, because delays in the processing and entry of such cases make them unavailable to be processed. CCMS will enable courts to promptly enter traffic citations, so that they can be paid more promptly by traffic offenders.
- **Reduced redundant data entry and improved data quality.** Because many of the State's justice systems are not integrated, data must often be entered and re-entered across various justice systems, providing opportunities for delays and errors. Within the CCMS business environment, data can be maintained and transmitted electronically, thereby reducing the need for redundant data entry and improving data quality.

## 4.3 Qualitative Benefits (Contd)

- **Prompt recording of minute orders.** CCMS will enable minute orders to be recorded directly in the court room and produced immediately. Producing minute orders immediately will improve compliance with judicial orders, by providing clear instructions immediately and enabling the recipient to review the minute order to identify errors or obtain clarifications where necessary.
- **The unification of family court cases.** In the current environment, cases involving the same family member can be heard in different courts that may not know that the family is involved in multiple cases. This can lead to numerous problems, including conflicting orders. By linking individuals to family units and linking one family unit to another, CCMS will support the ability of the courts to relate family cases and family members.
- **Allowing judges to manage caseloads more efficiently.** By providing a common application across all case types and jurisdictions, CCMS will enable assigned judges to be much more efficient in the preparation of assigned cases.
- **Less clean-up of court data required by DOJ.** Within their document *California's Court Case Management System Data Integration Benefits: To Courts and Partners*, the AOC indicates that, in 2009, DOJ had 65 staff members dedicated to the clean-up of court criminal history records. It is likely that a substantial level of this workload will be reduced with the implementation of CCMS. During discussions with DOJ staff, DOJ indicated that it had not completely assessed the degree of benefit that the Department would yield from data integration with CCMS, and that such assessment was only in the initial stages. While CCMS integration with DOJ will likely result in some level of cost reduction for DOJ, since DOJ was unable to accurately estimate either the costs or benefits of this integration at this time these benefits were not included when estimating CCMS ROI.

## 4.3 Qualitative Benefits (Contd)

- **More efficient intake of offenders by CDCR.** When inmates are transitioned from county to state institutions, they are transferred along with extensive paper-based court documentation, including:
  - Minute orders
  - Abstracts of Judgment
  - Sentencing Transcripts
  - Charging Document
  - PO Report
  - Arrest Reports

As inmates arrive at institutions with their court documentation, institution administrative staff must manually enter portions of the documentation into the CDCR Offender Based Information System (OBIS). CDCR is currently deploying a Strategic Offender Management System (SOMS), which will significantly integrate and improve offender management activities across the department's 33 institutions. As SOMS is rolled out to the institutions, CDCR will be able to establish integration links that will allow institutions to send and receive inmate information electronically. As CCMS V4 is rolled out across the judiciary, the AOC will be able to establish integration links with the CDCR to electronically transmit data that is currently entered manually, thereby eliminating this manual data entry. This integration will likely result in quantifiable savings in CDCR staff time as CCMS and SOMS are deployed, but since CDCR was unable to accurately estimate either the costs or benefits of this integration at this time these benefits were not included when estimating CCMS ROI.

# 5.0 Cost Benefit Analysis

- 5.1 Baseline Scenario Costs
  - 5.1.1 Baseline One-time IT Costs
  - 5.1.2 Baseline Continuing IT Costs
- 5.2 Early Adopter and Phase 2 CCMS V4 Deployment Scenario Costs
- 5.3 Comparison of Scenarios

# 5.1 Baseline Scenario Costs

The baseline scenario assumes that the Judicial Branch does not move ahead with a CCMS V4 deployment (including no early adopter deployment). Instead, each court continues to operate and maintain their current CMS', and then independently replaces their CMS' at some point between FY 12/13 and FY20/21. The V2 and V3 systems may continue to operate through FY20/21. Within this scenario there are three sets of costs:

- One-time CMS replacement costs to replace current CMS' with more modern equivalents once the current systems reach the end of their useful life;
- Continuing M&O costs for the current CMS' at each court; and
- Continuing program costs for the court business processes that will continue to operate in a status-quo environment.

The continuing program costs for the baseline scenario were described in subsection 4.2 above. The following sections detail the one-time CMS replacement and continuing M&O costs for the baseline scenario.

## 5.1.1 Baseline One-time Costs

This subsection presents the estimated costs of upgrading or replacing current court case management systems (CMS) in the event that the CCMS project is cancelled. We have assumed that all 11 courts will require a new CMS prior to FY20/21, but we have also assumed a minimalist replacement strategy –courts are assumed to replace their systems with the minimum functionality to support their current business practices. No significant business process reengineering, additional automation, or DMS implementation is assumed.

The most detailed recent analysis of the estimated costs to individually replace the CMS' in the 58 trail courts was published in January, 2010 by The Amicus Group, inc. on behalf of the California Trial Court Consortium. The analysis developed an estimate of likely implementation for costs to implement a new CMS at each California trail court based on data from 85 comparable CMS projects conducted between 2000 and 2011. Appendix 4 of this document presented a court-by-court deployment cost estimate, including estimates for software costs, hardware costs, implementation services, and data conversion. We used the estimates in Appendix 4 of the document for each of the 11 courts as the basis for the CMS replacement costs in this analysis.

Since the Amicus Group study did not include an explicit estimate of court staff costs, we also added court staff cost estimates to our projection of total CMS replacement costs. Court staff costs were estimated to be 35% of the implementation services costs, based on an assumption of a 1:1 ratio of court staff to vendor staff, and an assumed hourly cost for court staff of 35% of the hourly rate for contract staff.

The following page presents our estimated one-time individual CMS replacement costs for the 11 courts.



## 5.1.1 Baseline One-time Costs (contd)

Court	Staff	Implementation Services	Hardware	Software	Conversion	CA-specific requirements	Total
San Luis Obispo	\$331,800	\$948,000	\$171,302	\$711,000	\$0	\$1,000,000	<b>\$3,162,102</b>
Fresno	\$1,556,800	\$4,448,000	\$317,670	\$2,502,000	\$390,000	\$1,000,000	<b>\$10,214,470</b>
Mendocino	\$174,300	\$498,000	\$171,302	\$373,500	\$112,000	\$1,000,000	<b>\$2,329,102</b>
San Joaquin	\$966,000	\$2,760,000	\$317,670	\$1,552,500	\$390,000	\$1,000,000	<b>\$6,986,170</b>
San Diego	\$6,324,500	\$18,070,000	\$1,431,005	\$8,131,500	\$520,000	\$1,000,000	<b>\$35,477,005</b>
Inyo	\$33,600	\$96,000	\$146,830	\$108,000	\$93,000	\$1,000,000	<b>\$1,477,430</b>
Orange	\$6,881,000	\$19,660,000	\$1,431,005	\$8,847,000	\$520,000	\$1,000,000	<b>\$38,339,005</b>
Santa Cruz	\$331,800	\$948,000	\$171,302	\$711,000	\$112,000	\$1,000,000	<b>\$3,274,102</b>
Alameda	\$3,209,500	\$9,170,000	\$1,431,005	\$4,126,500	\$520,000	\$1,000,000	<b>\$19,457,005</b>
Ventura	\$1,148,000	\$3,280,000	\$317,670	\$1,845,000	\$390,000	\$1,000,000	<b>\$7,980,670</b>
Marin	\$371,700	\$1,062,000	\$171,302	\$796,500	\$112,000	\$1,000,000	<b>\$3,513,502</b>
<b>Total</b>	<b>\$21,329,000</b>	<b>\$60,940,000</b>	<b>\$6,078,063</b>	<b>\$29,704,500</b>	<b>\$3,159,000</b>	<b>\$11,000,000</b>	<b>\$132,210,563</b>

## 5.1.2 Baseline Continuing IT Costs

- Current court CMS continuing IT costs are based on our data collection and interviews with courts to understand their current IT expenditures. In addition to courts' other systems, current continuing IT costs include the cost of maintaining any currently operational instances of V2 and V3.
- Phoenix, the AOC financial management and accounting system, has been used to capture costs associated with the court CMS' at the trial courts.
- Not all courts use the same account codes in Phoenix, nor do they capture all the costs in the same fashion.
- Existing IT costs from Phoenix were provided to Grant Thornton. Grant Thornton followed up through both in-person and telephonic interviews with key personnel at the trial courts to confirm consistency in the classification of costs and to validate that cost data collection was complete. In the cases where Phoenix information was not available for a specific court, existing IT costs were gathered from our previous CCMS Cost Benefit Analysis.
- The following tables represent the estimated court CMS continuing IT costs FY2011/12 – FY2020/21.

## 5.1.2 Baseline Continuing IT Costs (contd)

	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>										
Staff (Salaries & Benefits)	90.4	\$2,577,090	91.0	\$2,572,881	91.0	\$2,606,356	86.2	\$2,690,261	86.2	\$2,690,157
Hardware Lease/Maintenance	0.0	\$352,424	0.0	\$215,558	0.0	\$204,891	0.0	\$151,800	0.0	\$364,619
Software Maintenance/Licenses	0.0	\$998,708	0.0	\$988,225	0.0	\$1,030,873	0.0	\$1,029,044	0.0	\$1,042,063
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>										
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IV&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,441,010	0.0	\$1,432,377	0.0	\$1,431,179	0.0	\$1,425,375	0.0	\$1,426,053
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$1,441,010</b>	<b>0.0</b>	<b>\$1,432,377</b>	<b>0.0</b>	<b>\$1,431,179</b>	<b>0.0</b>	<b>\$1,425,375</b>	<b>0.0</b>	<b>\$1,426,053</b>
Data Center Services	0.0	\$2,574,236	0.0	\$2,642,282	0.0	\$2,738,690	0.0	\$2,842,103	0.0	\$2,952,334
Agency Facilities	0.0	\$172,577	0.0	\$172,638	0.0	\$172,697	0.0	\$172,484	0.0	\$172,539
Other	0.0	\$25,158,649	0.0	\$19,489,248	0.0	\$16,740,278	0.0	\$17,866,448	0.0	\$18,916,022
<b>Total Continuing IT Costs</b>	<b>90.4</b>	<b>\$33,274,694</b>	<b>91.0</b>	<b>\$27,513,209</b>	<b>91.0</b>	<b>\$24,924,963</b>	<b>86.2</b>	<b>\$26,177,516</b>	<b>86.2</b>	<b>\$27,563,786</b>

## 5.1.2 Baseline Continuing IT Costs (contd)

	FY	2017/18	FY	2018/19	FY	2019/20	FY	2020/21		TOTAL
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>										
Staff (Salaries & Benefits)	86.0	\$2,730,564	86.0	\$2,773,712	86.2	\$2,814,011	83.0	\$2,837,089	872.2	27000281.4
Hardware Lease/Maintenance	0.0	\$193,844	0.0	\$151,440	0.0	\$351,031	0.0	\$177,360	0.0	\$2,319,813
Software Maintenance/Licenses	0.0	\$1,076,506	0.0	\$1,095,338	0.0	\$1,115,117	0.0	\$1,135,438	0.0	\$10,572,580
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>									<b>0.0</b>	<b>\$0</b>
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IV&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,425,300	0.0	\$1,424,500	0.0	\$1,424,873	0.0	\$1,427,971	0.0	\$14,283,648
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$1,425,300</b>	<b>0.0</b>	<b>\$1,424,500</b>	<b>0.0</b>	<b>\$1,424,873</b>	<b>0.0</b>	<b>\$1,427,971</b>	<b>0.0</b>	<b>\$14,283,648</b>
Data Center Services	0.0	\$3,195,732	0.0	\$3,330,508	0.0	\$3,474,637	0.0	\$3,628,772	0.0	\$30,473,509
Agency Facilities	0.0	\$172,658	0.0	\$172,722	0.0	\$172,789	0.0	\$172,859	0.0	\$1,726,620
Other	0.0	\$20,354,005	0.0	\$21,440,719	0.0	\$21,895,915	0.0	\$22,501,632	0.0	\$203,602,610
<b>Total Continuing IT Costs</b>	<b>86.0</b>	<b>\$29,148,610</b>	<b>86.0</b>	<b>\$30,388,938</b>	<b>86.2</b>	<b>\$31,248,373</b>	<b>83.0</b>	<b>\$31,881,120</b>	<b>872.2</b>	<b>\$289,979,060</b>

## 5.1.2 Baseline Continuing IT Costs (contd)

- The AOC currently supports certain courts by providing supplemental funding to maintain their CCMS V2 and CCMS V3 systems. Based on figures provided by the AOC, Grant Thornton estimates that, over the analysis period, AOC supplemental funding will total approximately \$190M. Supplemental funding costs vary annually from approximately \$21M to \$26M. This variance is mainly driven by costs for the refresh and maintenance cycles for V2 and V3 hardware and application enhancements.
- The projected supplemental funding for V2 and V3 courts is as follows:

System	FY11/12	FY12/13	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
V2	5,682,103	6,347,124	6,413,081	6,464,067	6,758,277	6,837,863	6,873,223	6,954,191	6,990,211	7,072,582	66,392,722
V3	19,182,793	12,851,382	10,036,429	11,110,018	11,867,904	12,111,581	13,190,393	14,195,085	14,614,716	15,137,742	134,298,043

# 5.2 Early Adopter and Phase 2 CCMS V4 Deployment Costs

Subsection 3.2 above described our approach to estimating the one-time and continuing CCMS V4 deployment costs for the Phase 2 courts. Adding these costs together provides a total estimate of CCMS V4 IT deployment costs for the early adopter and Phase 2 courts. The following tables presents these costs.

Summary Rollup Costs	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>One-Time IT Project Costs</b>												
Staff (Salaries & Benefits)	0.0	\$0	15.2	\$1,144,105	241.4	\$15,831,875	325.6	\$24,570,691	176.9	\$13,346,718	22.7	\$1,709,643
Hardware Purchase	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Software Purchase/License	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Contract Services												
Software Customization	7.1	\$0	38.4	\$16,856,250	157.3	\$38,045,845	232.5	\$54,687,035	124.0	\$29,159,029	15.5	\$3,649,216
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
I&V Services	0.0	\$0	3.0	\$1,061,588	1.8	\$634,062	0.0	\$2,734,352	0.0	\$1,457,951	0.0	\$182,461
Other Contract Services*	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>TOTAL Contract Services</b>	<b>7.1</b>	<b>\$0</b>	<b>41</b>	<b>\$17,917,837</b>	<b>159</b>	<b>\$38,679,908</b>	<b>233</b>	<b>\$57,421,386</b>	<b>124</b>	<b>\$30,616,980</b>	<b>16</b>	<b>\$3,831,677</b>
Data Center Services	0.0	\$192,218	0.0	\$476,601	0.0	\$2,959,710	0.0	\$1,658,368	0.0	\$1,691,323	0.0	\$567,436
Agency Facilities	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other - Contingency costs (10%)	0.0	\$0	0.0	\$428,294	0.0	\$5,055,800	9.1	\$7,925,773	15.7	\$4,250,575	3.0	\$841,414
<b>Total One-time IT Costs</b>	<b>7.1</b>	<b>\$192,218</b>	<b>56.6</b>	<b>\$19,966,837</b>	<b>400.5</b>	<b>\$62,527,292</b>	<b>567.3</b>	<b>\$91,576,218</b>	<b>440.5</b>	<b>\$49,905,595</b>	<b>22.7</b>	<b>\$6,950,169</b>

Continuing IT Project Costs	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>												
Staff (Salaries & Benefits)	117.0	\$12,608,778	144.8	\$15,208,533	142.1	\$15,466,144	111.5	\$14,511,739	102.9	\$5,938,060	0.0	\$19,546,181
Hardware Lease/Maintenance	0.0	\$1,344,524	0.0	\$3,612,196	0.0	\$1,014,091	0.0	\$871,300	0.0	\$3,000,840	0.0	\$0
Software Maintenance/Licenses	0.0	\$2,802,491	0.0	\$2,819,665	0.0	\$2,890,111	0.0	\$2,776,979	0.0	\$1,227,368	0.0	\$0
Telecommunications	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583	0.0	\$0
Contract Services												
Software Customization	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583	0.0	\$0
Project Management	0.0	\$0	0.0	\$173,198	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
I&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$2,345,766	13.7	\$11,459,242	14.5	\$12,053,050	0.0	\$18,040,015	0.0	\$31,638,701	0.0	\$1,318,240
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$3,770,766</b>	<b>13.7</b>	<b>\$13,064,439</b>	<b>14.5</b>	<b>\$13,670,047</b>	<b>0.0</b>	<b>\$19,664,012</b>	<b>0.0</b>	<b>\$32,664,282</b>	<b>0.0</b>	<b>\$1,496,237</b>
Data Center Services	0.0	\$3,464,801	0.0	\$5,839,226	0.0	\$11,319,716	0.0	\$12,871,736	0.0	\$10,850,308	0.0	\$9,480,642
Agency Facilities	0.0	\$77,614	0.0	\$677,849	0.0	\$489,031	0.0	\$675,123	0.0	\$616,650	0.0	\$616,500
Other	0.0	\$25,232,928	0.0	\$19,794,367	0.0	\$17,090,435	0.0	\$16,664,616	0.0	\$12,512,028	0.0	\$4,369,016
<b>Total Continuing IT Costs</b>	<b>117.0</b>	<b>\$50,726,903</b>	<b>158.6</b>	<b>\$62,448,275</b>	<b>156.6</b>	<b>\$63,378,575</b>	<b>111.5</b>	<b>\$69,481,505</b>	<b>102.9</b>	<b>\$67,657,119</b>	<b>0.0</b>	<b>\$35,508,577</b>



## 5.2 Budget Required to Support Early Adopter and Phase 2 Deployment

The table below presents an estimate of the total new funding required to support the deployment of CCMS V4 to San Luis Obispo and to the Phase 2 courts each fiscal year. This estimate includes all one-time CCMS V4 deployment costs and all new continuing costs to support the statewide CCMS infrastructure and program. This estimate assumes that 100% of court staff time would be reimbursed by the AOC, and that 80% of existing CMS budget funds would be redirected to support CCMS. To the extent that courts did not require reimbursement by the AOC then the required funding would be less.

Fiscal Year	CCMS V4 Funding
FY12/13	\$35,576,469
FY13/14	\$84,042,697
FY14/15	\$118,532,827
FY15/16	\$82,545,927
FY16/17	\$15,771,825
FY17/18	\$3,028,613
FY18/19	\$1,787,120
FY19/20	\$955,482
FY20/21	\$334,061
<b>Total</b>	<b>\$342,575,022</b>



## 5.3 Comparison of Scenarios

To compare the baseline and CCMS V4 deployment scenarios three numbers must be compared: 1) one-time IT costs, 2) continuing IT costs, and 3) continuing program costs. The table below presents to totals for each category and compares the total cost of each scenario for the 11 court deployment through FY20/21.

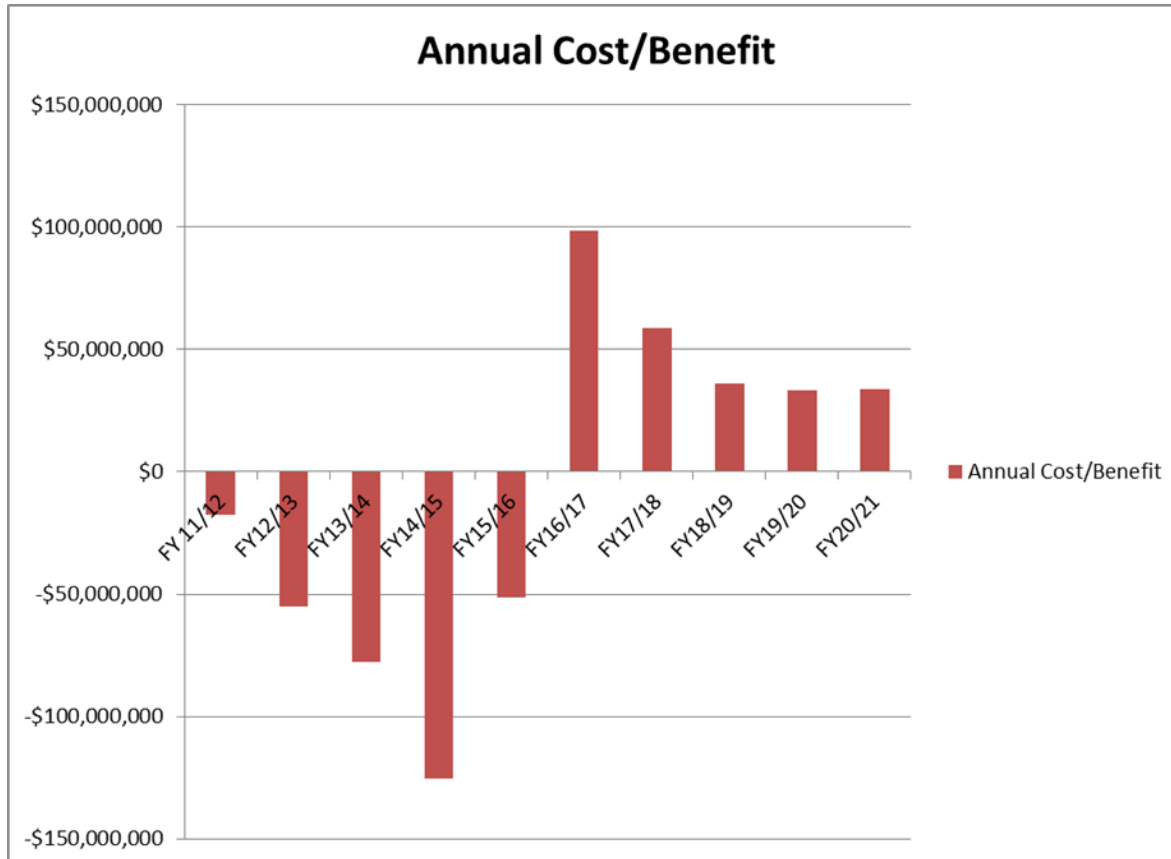
Category	Baseline	CCMS V4 Deployment to 11 Courts	Difference (CCMS V4 minus Baseline)
One-time IT	\$132,210,563	\$231,118,328	\$98,907,765
Continuing IT	\$289,979,060	\$475,086,487	\$185,107,426
Continuing program	\$711,437,098	\$494,453,819	-\$216,983,279
<b>Total</b>	<b>\$1,133,626,721</b>	<b>\$1,200,658,635</b>	<b>\$67,031,913</b>

Based on our analysis, we estimate that the CCMS V4 deployment to San Luis Obispo and to the recommended Phase 2 courts will result in a net negative Return on Investment (ROI) to the branch of approximately -\$67m through FY20/21.

Note that no new revenue sources were assumed when estimating the potential benefits to the Branch of deploying CCMS V4.

# 5.3 Comparison of Scenarios (Contd)

Note that the CCMS V4 deployment will provide a net positive ROI of approximately \$33m in each year from FY17/18 onwards. This trend is presented in the figure below.



Note that the significant benefit amounts in FY16/17 and FY17/18 are due to the estimated timing of the replacement of the individual CMS' at the 11 courts in the Baseline (no CCMS) scenario. Many of these costs are estimated to accrue in FY16/17 and FY17/18, so increasing the benefit of the CCMS scenario in those years.

Based on these estimates, the 11 court CCMS deployment will break even in FY22/23.

# 6.0 Summary of Analysis and Recommendations

- Grant Thornton has recommended a ten court Phase 2 CCMS V4 deployment strategy that balances economic return, diversity of courts, and support for courts with a critical need for a new case management system. We have recommended a deployment in two sub-phases that would deploy after the completion of the early adopter deployment at San Luis Obispo and that would complete in mid-FY16/17.
- Based on our analysis of the AOC 'Jan 5th' budget estimate for the early adopter court deployment, we believe that the actual cost to deploy CCMS to San Luis Obispo has been overestimated, and we developed a revised estimate of \$56,440,305 to complete the deployment. Note that the largest difference between our early adopter estimate and the AOC 'Jan 5th' budget was due to our decision to only reflect the costs necessary to implement CCMS V4 at San Luis Obispo, and not to include any post-implementation M&O costs.
- Grant Thornton estimated the total one-time and continuing costs of the early adopter plus ten Phase 2 court deployment scenario through FY20/21. That cost was estimated at \$1,200,658,635 (including the costs of relevant court business processes).
- Grant Thornton also estimated the total one-time and continuing cost of not deploying CCMS and of having the 11 courts continue to operate their current CMS' and then independently replace them over time. In this scenario we assumed current court business process costs would remain unchanged. We estimated this cost through FY 20/21 at \$1,133,626,721.
- This result implies that the deployment of CCMS V4 to these 11 courts on this schedule would result in a negative ROI to the Branch of approximately \$67m through FY20/21, although from FY17/18 onwards the deployment would net an annual benefit to the Branch of approximately \$33m.

# 6.0 Summary of Analysis and Recommendations (contd)

To create a CCMS V4 deployment strategy that has an earlier positive return on investment, the Branch has several options:

- **Add additional courts, or replace the smaller courts in the deployment plan with large or medium-sized courts.** In general, larger courts provide a more positive ROI when deploying CCMS than smaller courts. No additional large courts were interested in participating in early CCMS V4 deployment discussions, but given the large start-up costs for a system that is designed as a statewide solution, the ROI for CCMS becomes progressively better the larger the percentage of state case volume that is processed through the system.
- **Work with county and local justice partners to increase the percentage of case filings submitted electronically.** One of the main drivers of program cost savings for CCMS is the receipt of case filing electronically and the removal of paper handling costs. Many justice partners are currently unable or unwilling to commit to the investment necessary to integrate with CCMS V4. Bringing on additional justice partners would increase the total percentage of cases received electronically and could significant increase CCMS ROI.
- **Accelerate the deployment of the Phase 2.1 and Phase 2.2 courts.** Grant Thornton developed a deployment sequence that was consistent with the general timeframes previously considered for a CCMS court deployment, but we only assumed a maximum of 5 courts in a concurrent deployment. By increasing this number the Branch could deploy the Phase 2 courts a year or more earlier and thereby increase the number of post-go live years when a positive annual ROI would contribute to an overall positive ROI for the project. However, the AOC will already be challenged to scale up quickly enough to field a team to deploy 5 courts concurrently. Scaling up more quickly than this might not be feasible.

# 6.0 Summary of Analysis and Recommendations (contd)

Should the Judicial Branch elect to proceed with the deployment of CCMS V4, Grant Thornton makes the following recommendations related to the planning and execution of the deployment:

- 1. Restructure CCMS governance.** Should the CCMS V4 deployment move ahead, we recommend that the structure, roles and membership of the CCMS governance bodies be reviewed and if necessary changed to reflect the chosen deployment strategy. In particular, if the recommended Grant Thornton deployment strategy were followed then the Phase 2 courts should immediately have a clear and influential role in both the planning for deployment activities and in the development and enhancement path for future CCMS releases. Several courts have already identified specific functionality that they believe is required in CCMS in the future, and as the early users of CCMS these courts should have a significant voice in project decision-making.
- 2. Investigate level of effort to configure CCMS for extra-small courts.** Given the unique needs of extra-small courts (in particular the very general nature of their staffing model where a single staff member must process many different types of cases and transactions), the Branch should examine what changes to the standard CCMS configuration will be required to enable CCMS to work effectively for these very small courts and should determine the level of investment required to make a 'small court' version of CCMS.
- 3. Rationalize the budgeting and financial management of the CCMS program.** We recommend that the AOC revisit the structure and processes for budgeting and financial management for CCMS. The current budgeting structure (by AOC organizational unit) is difficult to understand and does not match the approach or format used by other state entities. Implementing a common budgeting and financial management process (ideally one consistent with California Technology Agency policy and guidance) would make communication with other State entities much easier.

# Appendix: Economic Analysis Worksheets

The Economic Analysis Worksheets used to develop this document are included by reference as a series of attached MS-Excel files.



Judicial Council of California  
Administrative Office of the Courts  
Court Case Management System  
(CCMS)

Recommended CCMS V4  
Deployment Plan and Approach

Final

March 26, 2012

## Executive Summary

This *Recommended CCMS V4 Deployment Plan and Approach* document estimates the deployment costs and benefits to the Administrative Office of the Courts (AOC) and to the recommended courts of a limited deployment of the Court Case Management System (CCMS) V4 to one early adopter court and to ten subsequent courts (referred to in the document as the 'Phase 2' courts). To accomplish this, Grant Thornton:

- Independently reviewed and validated the AOC's budget assumptions for the San Luis Obispo early adopter court deployment;
- Identified ten additional courts to participate in an initial deployment of the CCMS V4 system. Courts were recommended based on a set of evaluation criteria that included court size, current use of CCMS V2 or V3, and existence of a critical need, related to the stability of their current case management system (CMS);
- Estimated the CCMS V4 deployment costs for these courts (both one-time and ongoing) through Fiscal Year (FY) 2020/21;
- Estimated the benefits associated with deploying CCMS V4 to the recommended courts; and
- Estimated the Return on Investment (ROI) of deploying CCMS V4 to the recommended courts, versus not deploying CCMS.

### Recommended Deployment Plan

Grant Thornton recommends a deployment of the eleven selected courts in two sub-phases. In Phase 1, the AOC would deploy the Early Adopter court. In Phase 2.1, the AOC would deploy five of the remaining ten courts, and in Phase 2.2, the AOC would deployment the remaining five courts. The figure below presents the recommended sequencing and high-level timeline for each of the courts. The receptiveness of court staff to participation in an early CCMS V4 deployment was taken into consideration as we identified candidate courts. However, participation in our deployment analysis and inclusion in our recommended deployment plan does not imply that all of the selected courts have committed to participating in the actual CCMS V4 deployment. In some cases, we have recommended courts for inclusion in the CCMS V4 deployment, even though the courts have expressed reservations about being included in an early deployment phase. We recommended these courts only in cases where the economic justification for their inclusion was particularly strong.



ID	Task Name	Start	Finish	2012				2013				2014				2015				2016		
				Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3			
1	Phase 1	9/4/2012	2/17/2014	█																		
2	San Luis Obispo	9/4/2012	2/17/2014	█																		
3	Phase 2.1	8/6/2013	1/18/2016					█														
4	Go/No Stage Gate for Phase 2.1	10/29/2013	10/29/2013																			
5	San Diego	8/6/2013	1/18/2016					█														
6	Fresno	8/6/2013	3/3/2015					█														
7	CCMS V2 Retired	11/14/2014	11/14/2014																			
8	San Joaquin	8/6/2013	4/13/2015					█														
9	Santa Cruz	8/6/2013	4/13/2015					█														
10	Mendocino	8/6/2013	4/13/2015					█														
11	Phase 2.2	5/13/2014	10/25/2016									█										
12	Alameda	5/13/2014	1/18/2016									█										
13	Inyo	5/13/2014	6/8/2015									█										
14	Marin	5/13/2014	1/18/2016									█										
15	Ventura	5/13/2014	10/25/2016									█										
16	Orange	5/13/2014	10/25/2016									█										
17	AOC takes over CCMS V4 M&O	7/1/2016	7/1/2016													◆						
18	Opportunity to retire CCMS V3	10/25/2016	10/25/2016													◆						

Recommended CCMS V4 Phase 2 deployment courts and sequencing

**Analysis of Early Adopter Budget**

Grant Thornton conducted an independent validation of the AOC’s budget estimate for the Early Adopter deployment at San Luis Obispo. The AOC has created multiple different scenarios for the Early Adopter court deployment. For our analysis, Grant Thornton used the 'Jan 5<sup>th</sup>' budget estimate version of the San Luis Obispo early adopter deployment budget. Grant Thornton translated the AOC budget format into the State Economic Analysis Worksheet (EAW) format, and validated (and in some cases revised) the assumptions upon which the budget was based. We also translated the estimated deployment dates to match the Grant Thornton deployment timeline as shown above. The most significant item we identified was that the budget required for the Early Adopter deployment varied substantially, depending on how ‘early adopter deployment’ is defined. This reflects the fact that there are two ways to view the early adopter figures:

1. As a **budget request**, where all funds necessary to keep CCMS in operation for the fiscal years in question are included. For the 'Jan 5<sup>th</sup>' budget, this means all resources necessary to fund CCMS for FY 11/12, 12/13 and 13/14. This, by necessity, includes funds for Maintenance and Operation (M&O) of CCMS after the early adopter court goes live. This is the approach taken by the AOC in constructing their 'Jan 5<sup>th</sup>' budget estimate. This approach answers the question *"How much must be appropriated each year to implement CCMS V4 at San Luis Obispo and keep CCMS operational through FY13/14?"*; or
2. As a **cost estimate**, where only those resources necessary to place the early adopter court into production would be included. Any costs after that would not be included in the estimate. This approach answers the question *"How much will it cost to implement CCMS V4 at San Luis Obispo?"*

Both approaches are valid ways to view the early adopter budget, but the two approaches result in very different numbers. The following figure presents Grant Thornton's summary assessment of the early adopter budget, showing the budget both from a full fiscal year perspective and from an implementation cost-only perspective.

Early Adopter Budget	FY11/12	FY12/13	FY13/14	Total	Notes
AOC Jan 5 <sup>th</sup> budget.	\$12,824,359	\$45,507,799	\$44,477,496	\$102,809,653	Total amount required through FY 13/14 based on AOC assumptions at time Jan 5 <sup>th</sup> budget was constructed.
Grant Thornton estimate, full fiscal year amounts.	\$203,313	\$30,591,976	\$50,801,021	\$81,596,310	Total amount required through FY 13/14 based on Grant Thornton assumptions.
Grant Thornton estimate, only amount required to place CCMS V4 into production at early adopter court.	\$203,313	\$30,591,976	\$25,645,016	\$56,440,305	Total amount required to implement CCMS V4 at San Luis Obispo in February 2014. Does not include any M&O costs after February 2014.

Summary of early adopter budget assessment

Given the large cost involved in deploying the CCMS V4 to San Luis Obispo (far larger than would be required for a stand-alone CMS deployment), deployment of San Luis Obispo on CCMS V4 can only be justified if the Judicial Branch also intends to deploy multiple additional courts on the statewide CCMS V4 infrastructure.

## Phase 2 Deployment Cost Benefit Analysis

Grant Thornton estimated the total IT and program costs associated with two scenarios:

1. **Early adopter and Phase 2 CCMS V4 deployment.** Deploy CCMS V4 to San Luis Obispo and to the Phase 2 courts as outlined above. Retire V2 and V3 at the conclusion of the Phase 2 deployment.
2. **Baseline scenario.** Do not deploy CCMS to any courts. Each court independently replaces their case management systems at some point over the next ten years.

To compare the Baseline and CCMS V4 Phase 2 deployment scenarios three numbers must be compared for each scenario: 1) one-time IT costs, 2) continuing IT costs, and 3) continuing program costs. The table below presents to totals for each category and compares the total cost of each scenario for the 11 court deployment through FY20/21.

Category	Baseline	CCMS V4 Deployment to 11 Courts	Difference (CCMS V4 minus Baseline)
One-time IT	\$132,210,563	\$231,118,328	\$98,907,765
Continuing IT	\$289,979,060	\$475,086,487	\$185,107,426
Continuing program	\$711,437,098	\$494,453,819	-\$216,983,279
<b>Total</b>	<b>\$1,133,626,721</b>	<b>\$1,200,658,635</b>	<b>-\$67,031,913</b>

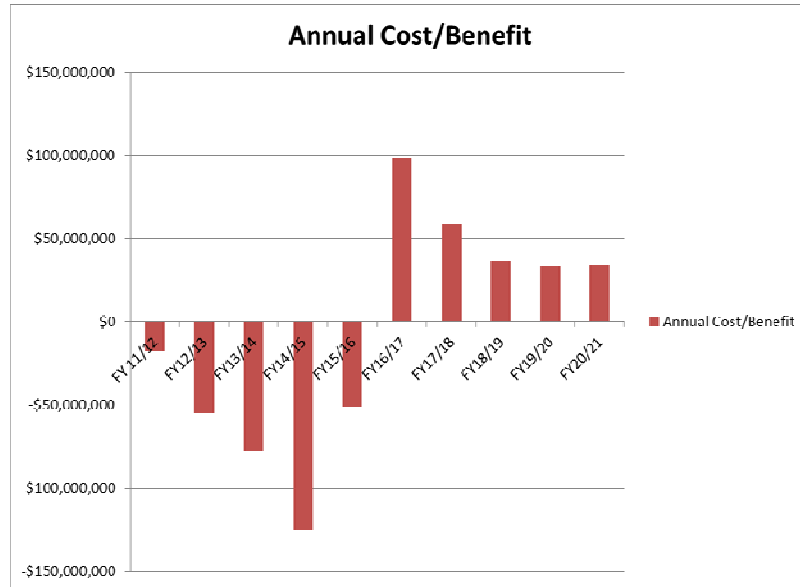
Summary of CCMS V4 deployment scenario costs

Based on our analysis, we estimate that the CCMS V4 deployment to San Luis Obispo and to the recommended Phase 2 courts will result in a net negative Return on Investment (ROI) to the branch of approximately -\$67 Million through FY20/21. Note that the figures above represent the total funds that would be expended for all case management-related IT and business process costs at the 11 courts. It includes CCMS V4 deployment and operations costs, current case management system operations costs, and the ongoing costs of conducting case management activities such as case initiation and calendaring at the 11 courts. Compared to the total costs above, the new funding required to support the deployment and operation of CCMS V4 is significantly less. The estimate of new funding requirements, by fiscal year, is presented in the figure below.

Fiscal Year	CCMS V4 Funding
FY12/13	\$35,576,469
FY13/14	\$84,042,697
FY14/15	\$118,532,827
FY15/16	\$82,545,927
FY16/17	\$15,771,825
FY17/18	\$3,028,613
FY18/19	\$1,787,120
FY19/20	\$955,482
FY20/21	\$334,061
<b>Total</b>	<b>\$342,575,022</b>

New funding required to implement and maintain CCMS V4 at 11 courts

As shown below, the CCMS V4 deployment will provide a net positive ROI of approximately \$33m in each year from FY17/18 onwards.



Annual cost/benefit for 11 court deployment of CCMS V4

Based on these estimates, the 11 court CCMS deployment will break even in FY22/23. Note that no new revenue sources were assumed when estimating the potential benefits to the Judicial Branch of deploying CCMS V4.

To create a CCMS V4 deployment strategy that has an earlier positive return on investment, the Branch has several options:

- Add additional courts, or replace the smaller courts in the deployment plan with large or medium-sized courts.** In general, larger courts provide a more positive ROI when deploying CCMS than smaller courts. No additional large courts were interested in participating in early CCMS V4 deployment discussions. However, given the large start-up costs for a system that is designed as a statewide solution, the ROI for CCMS V4 becomes progressively better as a larger percentage of state case volume is processed through the system.
- Work with county and local justice partners to increase the percentage of case filings submitted electronically.** One of the main drivers of program cost savings for CCMS is the receipt of case filings electronically and the removal of paper handling costs. Many justice partners are currently unable or unwilling to commit to the investment necessary to integrate with CCMS V4. Bringing on additional justice partners would increase the total percentage of cases received electronically and could significantly increase the CCMS V4 Return On Investment (ROI).
- Accelerate the deployment of the Phase 2.1 and Phase 2.2 courts.** Grant Thornton developed a deployment sequence that was consistent with the general timeframes previously considered for a CCMS court deployment, but we only assumed a maximum of 5 courts in a concurrent deployment. By increasing the courts that are concurrently deployed within a deployment phase, the Branch could deploy the Phase 2 courts a year or more earlier and thereby increase the number of post-go-live years when a positive annual ROI would contribute to an overall positive ROI for the project. However, the AOC is already challenged to scale up quickly enough to field a team to deploy 5 courts concurrently. Scaling up more quickly than this might not be feasible.

# Table of Contents

Executive Summary .....	i
Table of Contents .....	vi
<b>1. Introduction .....</b>	<b>1</b>
1.1. Background .....	1
1.2. Purpose and Scope .....	1
1.3. Approach .....	2
1.4. Assumptions and Constraints .....	3
1.5. Document Organization .....	4
<b>2. Recommended Deployment Strategy .....</b>	<b>5</b>
2.1 Overview .....	5
2.2 Deployment scope and assumptions .....	6
2.3 Deployment sequence and timeline .....	7
<b>3. Deployment Cost Analysis .....</b>	<b>13</b>
3.1 Early Adopter Deployment Cost Analysis .....	13
3.1.1 Summary of AOC Early Adopter Budget Estimate .....	13
3.1.2 Translating the CCMS early adopter budget into the State EAW format .....	14
3.1.3 Validating the AOC Budget Assumptions .....	15
3.1.4 Translating Deployment Dates .....	17
3.1.5 Summary of differences between AOC 'Jan 5th' budget and Grant Thornton budget .....	18
3.1.6 Summary of early adopter budget analysis .....	19
3.2 Phase 2 Court Deployment Cost Analysis .....	22
3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions .....	22
3.2.2 One-time statewide deployment cost estimates and assumptions .....	30
3.2.3 Continuing IT Cost Estimates and Assumptions .....	31
<b>4. Benefits Analysis .....</b>	<b>33</b>
4.1 Validation of Benefit Analysis Tools and Drivers .....	33
4.1.1 Review and Validate the Applicability of Selected Business Process .....	34

4.1.2	Analysis of Deployment Schedule .....	35
4.1.3	Validate Program Cost Driver Assumptions .....	35
4.2	Program Cost Analysis .....	36
4.3	Qualitative Benefits .....	39
5.	Cost Benefit Analysis .....	42
5.1	Baseline Scenario Costs .....	42
5.1.1	Baseline One-time IT Costs.....	42
5.1.2	Baseline Continuing IT Costs .....	43
5.2	Early Adopter and Phase 2 CCMS V4 Deployment Scenario Costs	45
5.3	Budget Required to Support CCMS Phase 2 Deployment .....	48
5.3	Comparison of Scenarios .....	49
6.	Summary of Analysis and Recommendations .....	51
	Appendix A: Economic Analysis Worksheets (EAW's) .....	53

# 1. Introduction

This section presents a summary of the contents of the CCMS Deployment Plan and Approach, including a summary of what will be discussed within each section and subsection of the analysis.

## 1.1. Background

The Court Case Management System (CCMS) remains one of largest Information Technology (IT) projects the State of California has ever initiated. The CCMS Project was initiated in early 2002 in an effort to consolidate case management systems within the courts and to increase the ability to share data statewide among the Administrative Office of the Courts (AOC), local superior courts, and state and local justice partners (e.g., the Department of Justice, the Department of Social Services, and local law enforcement agencies). The CCMS is a custom software development project that was developed in iterative phases (i.e., V2, V3, and V4), with the intent that lessons learned from each phase would assist in the planning of the next phase. The CCMS V4 solution has been fully developed and is now ready for deployment to the Judicial Branch's 58 courts.

Due to budget cuts related to the State's current financial crisis, the CCMS project does not currently have the funding to support deployment of the CCMS V4 solution to all of the Judicial Branch's 58 courts. In response to this, Grant Thornton was engaged by the AOC to develop a recommended deployment plan and approach for the CCMS V4 system that:

- Presents a recommended sequence and timeline for the deployment of CCMS V4 to a portion of the Judicial Branch's courts, and which can be used as an effective model for the deployment of subsequent courts; and
- Articulates the expected quantitative and qualitative benefits to be delivered by the CCMS V4 system to impacted courts once fully deployed. Note that no new revenue sources were assumed when estimating the potential benefits to the Branch of deploying CCMS V4.

The AOC will use the above information to support decision-making on the future course of the project.

## 1.2. Purpose and Scope

This *Recommended CCMS V4 Deployment Plan and Approach* document estimates the deployment costs and benefits to AOC and to the recommended courts of a limited deployment of CCMS V4 to one early adopter court and to ten subsequent courts (referred to in the document as the Phase 2 courts). To accomplish this, Grant Thornton:

Final

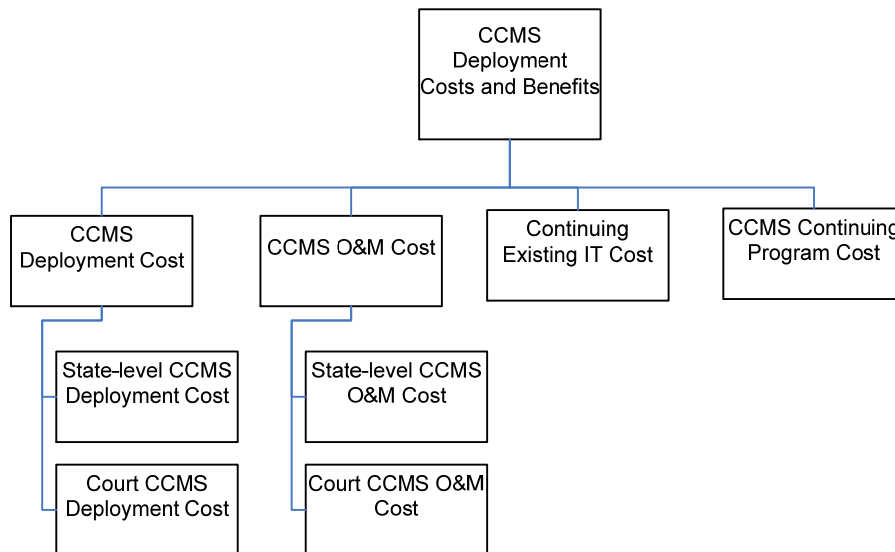
March 26, 2012

- Independently reviewed and validated the AOC's budget assumptions for the San Luis Obispo early adopter court deployment. We then developed a revised early adopter deployment budget, with modified assumptions where Grant Thornton considered these warranted, and presented the budget in the State of California Economic Analysis Worksheet (EAW) format;
- Identified ten additional courts to participate in an initial deployment of CCMS V4. Courts were recommended based on a set of evaluation criteria that included court size, current use of CCMS V2 or V3, stability of current Case Management System(s) (CMS), and enthusiasm to take part in a CCMS V4 deployment;
- Estimated the current environment (baseline) costs for these courts through FY 20/21 if they were not to deploy CCMS V4;
- Estimated the CCMS V4 deployment costs for these courts (both one-time and ongoing) through FY 20/21, and estimated the benefits associated with deploying CCMS V4 to the recommended courts; and
- Estimated the Return on Investment (ROI) of deploying CCMS V4 to the recommended courts versus not deploying CCMS.

Although this analysis leverages many of the methods and tools employed in Grant Thornton's 2011 CCMS V4 Cost Benefit Analysis, this document is not an update to that analysis, in that it considers only the 11 courts that are included in this document's deployment scope.

### 1.3. Approach

To estimate the costs and benefits associated with deploying CCMS V4 to the early adopter court and to the ten additional courts, Grant Thornton incorporated the following elements into our analysis.



**Table 1-1: Elements of Grant Thornton Cost Benefit Analysis**

These elements are described below:



- **CCMS deployment costs.** CCMS deployment costs to be paid through state-level funding are based on deployment budget estimates developed by Grant Thornton, using the validated early adopter court budget as a foundation. Court staff costs associated with the V4 deployment are based on estimates received from courts who have participated in the CCMS V4 readiness assessments.
- **CCMS operations and maintenance costs.** CCMS operations and maintenance costs are based on estimates received from the AOC during the early adopter budget analysis and in some cases reflect actual contract pricing based on assumptions provided to the AOC by Grant Thornton. Court CCMS operations and maintenance costs primarily reflect assumed out-of-pocket expenses for courts during ongoing CCMS operations.
- **Continuing IT costs.** Courts are assumed to continue to expend resources on operating and maintaining their current CMS' at the current rate until CCMS is implemented at their court. Current CMS IT costs are based on our data collection and on interviews with courts to understand their current IT expenditures. In addition to courts' other systems, current IT costs include the cost of maintaining any currently operational instances of V2 and V3 until those instances are retired.
- **Continuing program costs.** The increased automation and more efficient business practices anticipated to be delivered by CCMS V4 are assumed to impact each court's operations after that court has deployed the CCMS V4 system. The business process efficiencies delivered by CCMS V4 may have the effect of reducing continuing program costs as courts deploy CCMS.

When conducting a cost benefits analysis to support decision-making on a proposed State of California IT capital investment, the State of California has defined an Economic Analysis Worksheet (EAW) spreadsheet tool to support the analysis and to foster presentation of results in a common format. The EAW format requires that all costs related to an IT investment be considered when calculating ROI – this includes all one-time IT costs, all continuing IT costs (both for any new system and for any current systems that may be replaced) and all business process-related costs that may be impacted by the new system. The total costs for the new system are calculated as the sum total of all one time and continuing costs, and these costs are compared against the sum total of all one time and continuing costs for any alternative scenarios that may be considered. The difference between these totals is considered the ROI for the proposed new system.

Note that, by definition, the total figure used in the ROI calculation will be much greater than the total new funding required to build and maintain the new proposed system, since the costs of all current systems and business processes are also included in the ROI calculation

#### 1.4. Assumptions and Constraints

Grant Thornton made the following assumptions in developing the *Recommended CCMS V4 Deployment Plan and Approach*, and was also impacted by the following constraints.

##### **Assumptions:**

- AOC staff or their representatives will be available as required to provide historical CCMS information to Grant Thornton, and to identify and provide specific documentation relevant to our analysis.
- Court representatives will be reasonably available to meet with Grant Thornton staff in timely manner as necessary to support site visits.

- Baseline cost information returned by courts in response to e-mail or telephone inquiries will be accurate and representative of court case management costs.
- CCMS V4 project costs are assumed to begin in Fiscal Year (FY) 2011/12 and only include additional costs that would be incurred after the Judicial Council decision to proceed with CCMS V4 deployment. The timeline of the analysis extends through FY 2020/21.

#### Constraints:

- Midway through our project period of performance, the AOC requested that Grant Thornton accelerate the delivery of our draft and final reports by approximately two weeks to accommodate a Judicial Council meeting to be held on March 27<sup>th</sup>, 2011. To respond to this request, Grant Thornton was required to accelerate our analysis and change our approach to data collection, including reducing the number of courts site visits and reducing the quantity and detail of information received from some courts.

## 1.5. Document Organization

This document comprises the following sections:

- **Section 1, Introduction:** This section presents the background to the Recommended CCMS V4 Deployment Plan and Approach, including defining the purpose and scope of the analysis and documenting any significant assumptions or constraints that impacted the analysis.
- **Section 2, Recommended Deployment Strategy:** This section presents our recommended plan and approach for deploying the CCMS V4 system to the early adopter court and to ten additional Phase 2 courts.
- **Section 3, Deployment Cost Analysis:** This section presents our independent assessment of the AOC's early adopter deployment budget estimate, and also presents our estimate of the one-time and continuing costs for deploying CCMS V4 to the recommended ten additional Phase 2 courts.
- **Section 4: Deployment Benefits Analysis:** This section presents the estimated benefits associated with the deployment of CCMS V4 to the early adopter court and to the recommended ten additional courts.
- **Section 5: Cost Benefit Analysis:** This section presents an analysis of two deployment scenarios:
  - i) A Baseline scenario, which assumes that CCMS V4 is not deployed,
  - ii) A partial CCMS deployment scenario, which reflects the costs related to the deployment of the CCMS V4 system to the early adopter and recommended Phase 2 courts.
- **Section 6: Summary of Analysis:** This section summarizes the results of the analysis and presents any recommendations to the Judicial Council.
- **Appendix: Economic Analysis Worksheets.** This appendix (incorporated by reference as a separate Microsoft Excel file) presents the results of the recommended deployment approach and plan in the State of California EAW format.

## 2. Recommended Deployment Strategy

### 2.1 Overview

This section presents Grant Thornton's recommended deployment plan for a 'Phase 2' set of ten courts that would implement CCMS V4 after the early adopter court is deployed. Our objective was to identify a representative group of courts that would both demonstrate the utility of CCMS V4 to the Judicial Branch as a whole and that would be most cost-beneficial for the Branch to deploy. Our approach to developing the deployment plan comprised the following steps:

1. Identify evaluation criteria by which to determine the courts to be included in the Phase 2 deployment;
2. Develop an initial list of candidate courts for inclusion in the Phase 2 deployment;
3. Communicate with each candidate court (by e-mail and/or by phone) to determine their suitability for inclusion in the Phase 2 deployment;
4. Select the set of ten courts for inclusion in the recommended Phase 2 deployment plan;
5. Group the courts into two sub-phases (Phase 2.1 and Phase 2.2), each of five courts; and
6. Develop a high-level deployment sequence and timeline for the recommended courts.

The following presents this approach in more detail.

Grant Thornton selected the ten courts for inclusion in the deployment by considering the following evaluation criteria:

- **Court size:** Larger courts are more likely to deliver a positive return on investment for the CCMS V4 deployment, but we also wanted to include a representative diversity of types of courts in the deployment plan;
- **Current operation of CCMS V2 or V3:** Including the courts that currently operate CCMS V2 or V3 presents the opportunity to reduce or eliminate the annual costs associated with maintaining and operating these systems.

- **Critical need:** Courts that would soon need to replace their current CMS were considered a high priority since CCMS could respond to an urgent need.

In addition, the receptiveness of each court to participation in an early CCMS V4 deployment was also taken into consideration as we identified candidate courts. However, inclusion in our recommended deployment plan does not imply that those courts have committed to deploying the CCMS V4 system. In some cases, we recommended courts for inclusion in the CCMS V4 deployment even though the courts expressed reservations about their inclusion in an early deployment phase. We did this only in cases where the economic justification for their inclusion was particularly strong.

The following ten courts were recommended by Grant Thornton for inclusion in the CCMS V4 deployment.

Court	Size	V2	V3	Critical Need
Alameda	L			
Fresno	M	✓		✓
Inyo	XS			
Marin	S			
Mendocino	S			✓
Orange	L		✓	
San Diego	L		✓	✓
San Joaquin	M		✓	✓
Santa Cruz	S			
Ventura	M		✓	

Table 2-1: Recommended courts for CCMS V4 deployment

## 2.2 Deployment scope and assumptions

Deploying the full scope of CCMS to each court will provide the greatest return on investment for CCMS, since the largest possible case volume would be processed within the system. For this reason, we generally assumed that each court will deploy all case types onto CCMS V4. However, recognizing that some courts wish to deploy CCMS in stages - with different case types at each stage – Grant Thornton assumed that some courts would implement CCMS V4 on a case type-by-case type basis. The assumptions we used in our analysis are presented in the following table.

Court	Assumption
Alameda	Will only implement Criminal.
Fresno	All case types within a single release or in close succession.
Inyo	All case types within a single release or in close succession.
Marin	All case types within a single release or in close succession.
Mendocino	All case types within a single release or in close succession.
Orange	Two releases, the first with Family, Juvenile, Criminal and Traffic, and the second with Civil, Probate and Small Claims.
San Diego	Two releases, the first with Family and Juvenile and the second with all other case types.
San Joaquin	All case types within a single release or in close succession.
Santa Cruz	All case types within a single release or in close succession.
Ventura	Two releases, the first with Civil, Probate and Small Claims, and the second with Family, Juvenile, Criminal and Traffic.

Table 2-2: Court deployment assumptions

### 2.3 Deployment sequence and timeline

Table 2-3 below presents a summary of the recommended deployment sequence and timeline for the ten Phase 2 courts.

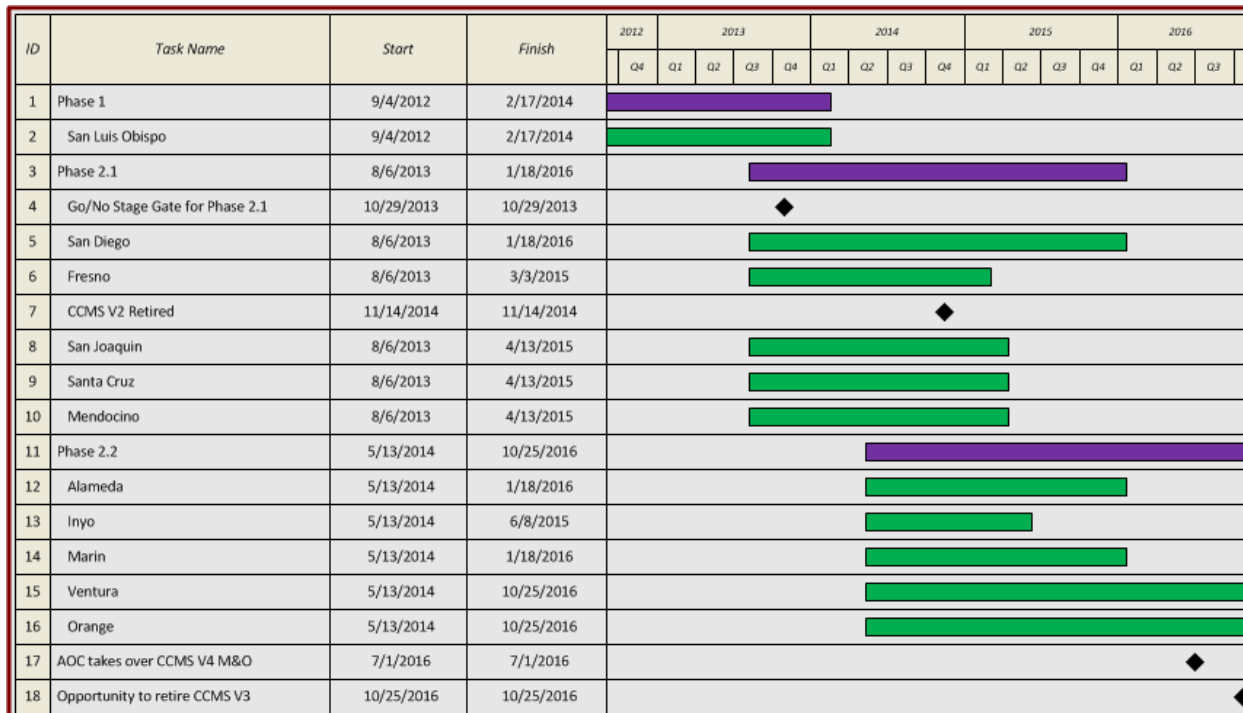


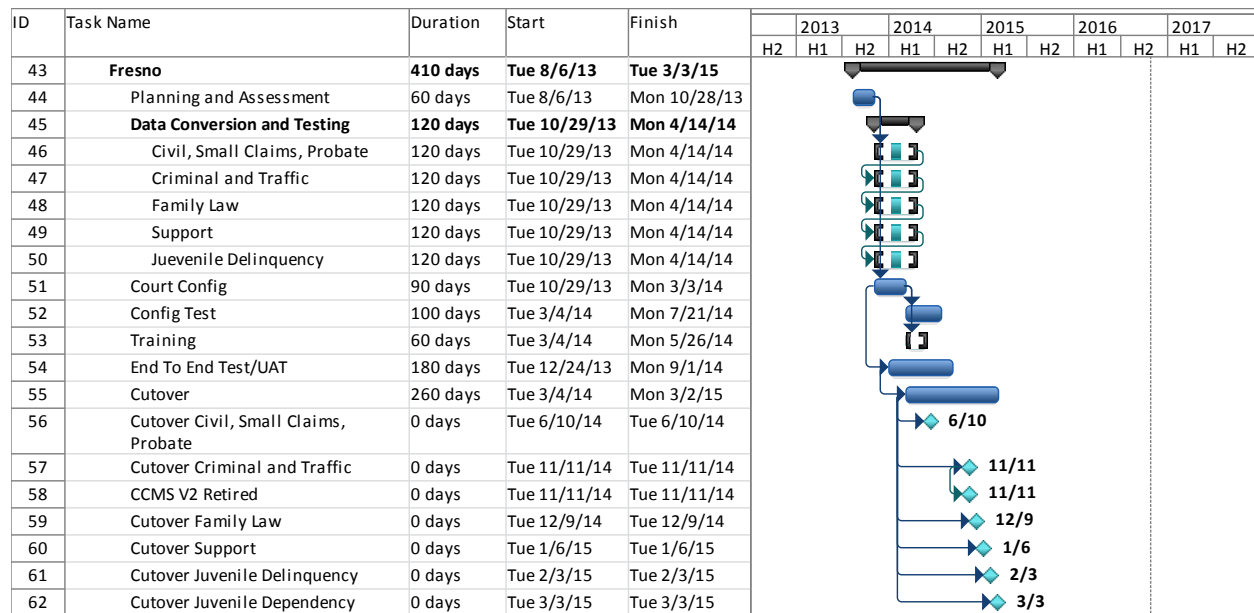
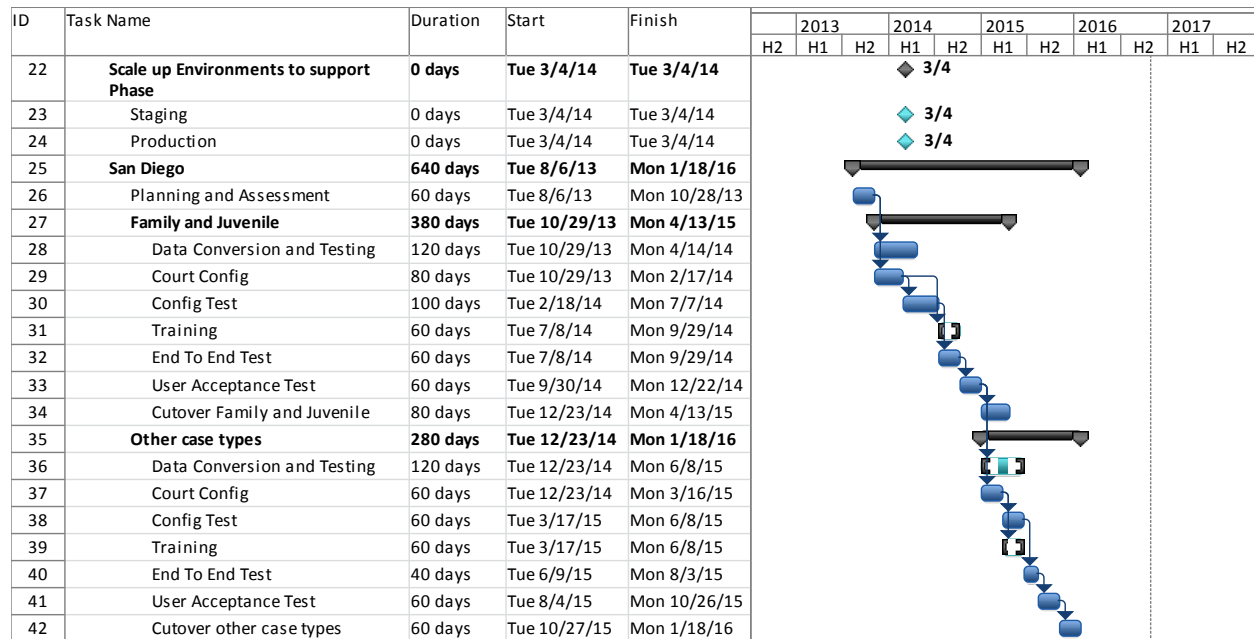
Figure 2-1: Recommended deployment sequence and timeline

The recommended deployment sequence and timeline includes the following key elements:

- A 'Go/No Go' stage gate for the Phase 2 deployment in October 2013.** This date coincides with the completion of User Acceptance Testing at San Luis Obispo and the completion of a three-month Planning and Assessment activity at each Phase 2.1 court. The stage gate activity provides the Judicial Council with an opportunity to review the progress of deployment at San Luis Obispo prior to actual cutover activities and to review the Phase 2.1 courts' assessment of the 'fit' of CCMS V4 to their needs. Based on a review of this information the Judicial Council can then make a decision either to proceed with the CCMS V4 deployment or to cancel the deployment before more resources are expended on the Phase 2.1 courts.
- Retirement of CCMS V2 in November 2014.** Once the Criminal and Traffic case types for Fresno have been deployed, the CCMS V2 system can be retired, saving the Judicial Branch the associated operating and maintenance costs for that system.
- Assumption of CCMS V4 Maintenance and Operations (M&O) responsibilities by the AOC on July 1, 2016.** Grant Thornton assumed that Deloitte would execute M&O activities for CCMS V4 in the early years of the deployment. We also assumed that, after the majority of the Phase 2.1 deployment had been stable in production for one year, the AOC would take over M&O, so reducing annual costs in this area for future years.
- An opportunity to retire CCMS V3 after October 2016.** Once all the Phase 2 courts have completed their deployments, only two courts will remain on CCMS V3. At this point, it would no longer be economically justified for the AOC to continue to maintain the V3 system. We recommend that the AOC encourage all V3 courts to transition to a new case management solution by October 2016.

The following figures present a more detailed MS-Project schedule for the deployment. Note that the following schedule is not intended as a detailed implementation plan, but instead was used to understand the overall durations and major milestone dates of the deployment approach. As such, the schedule has not been resource loaded or leveled.

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017					
					H2	H1	H2	H1	H2	H1	H2	H1	H2					
1	<b>CCMS V4 Deployment</b>																	
2	<b>Phase 1</b>	<b>470 days</b>	<b>Tue 5/1/12</b>	<b>Mon 2/17/14</b>														
3	Complete CCMS V4 Release 1	132 days	Tue 5/1/12	Wed 10/31/12														
4	<b>Prepare/Build out Environments for support</b>	<b>300 days</b>	<b>Tue 9/4/12</b>	<b>Tue 10/29/13</b>														
5	LT	0 days	Tue 9/4/12	Tue 9/4/12	◆ 9/4													
6	UAT	0 days	Tue 5/14/13	Tue 5/14/13	◆ 5/14													
7	TRN	0 days	Tue 5/14/13	Tue 5/14/13	◆ 5/14													
8	STAGING	0 days	Tue 10/29/13	Tue 10/29/13	◆ 10/29													
9	PRODUCTION	0 days	Tue 10/29/13	Tue 10/29/13	◆ 10/29													
10	<b>SLO</b>	<b>380 days</b>	<b>Tue 9/4/12</b>	<b>Mon 2/17/14</b>														
11	Court Config	80 days	Tue 9/4/12	Mon 12/24/12														
12	Config Test	100 days	Tue 12/25/12	Mon 5/13/13														
13	End To End Test	60 days	Tue 5/14/13	Mon 8/5/13														
14	User Acceptance Test	60 days	Tue 8/6/13	Mon 10/28/13														
15	Cutover	80 days	Tue 10/29/13	Mon 2/17/14														
16	<b>Phase 2</b>	<b>840 days</b>	<b>Tue 8/6/13</b>	<b>Tue 10/25/16</b>														
17	<b>Phase 2.1</b>	<b>640 days</b>	<b>Tue 8/6/13</b>	<b>Mon 1/18/16</b>														
18	Phase 2.1 Go/No Go Stage Gate Review	0 days	Tue 10/29/13	Tue 10/29/13	◆ 10/29													
19	<b>Build out Conversion Environments</b>	<b>0 days</b>	<b>Tue 10/29/13</b>	<b>Tue 10/29/13</b>	◆ 10/29													
20	Conversion Execution Environments (5)	0 days	Tue 10/29/13	Tue 10/29/13	◆ 10/29													
21	Conversion Test Environment (1 env)	0 days	Tue 10/29/13	Tue 10/29/13	◆ 10/29													



ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017					
					H2	H1	H2	H1	H2	H1	H2	H1	H2					
63	<b>San Joaquin</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>														
64	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13														
65	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14														
66	Court Config	80 days	Tue 10/29/13	Mon 2/17/14														
67	Config Test	100 days	Tue 2/18/14	Mon 7/7/14														
68	Training	60 days	Tue 10/29/13	Mon 1/20/14														
69	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14														
70	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14														
71	Cutover	80 days	Tue 12/23/14	Mon 4/13/15														
72	<b>Santa Cruz</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>														
73	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13														
74	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14														
75	Court Config	80 days	Tue 10/29/13	Mon 2/17/14														
76	Config Test	100 days	Tue 2/18/14	Mon 7/7/14														
77	Training	60 days	Tue 2/18/14	Mon 5/12/14														
78	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14														
79	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14														
80	Cutover	80 days	Tue 12/23/14	Mon 4/13/15														

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017					
					H2	H1	H2	H1	H2	H1	H2	H1	H2					
81	<b>Mendocino</b>	<b>440 days</b>	<b>Tue 8/6/13</b>	<b>Mon 4/13/15</b>														
82	Planning and Assessment	60 days	Tue 8/6/13	Mon 10/28/13														
83	Data Conversion and Testing	120 days	Tue 10/29/13	Mon 4/14/14														
84	Court Config	80 days	Tue 10/29/13	Mon 2/17/14														
85	Config Test	100 days	Tue 2/18/14	Mon 7/7/14														
86	Training	60 days	Tue 2/18/14	Mon 5/12/14														
87	End To End Test	60 days	Tue 7/8/14	Mon 9/29/14														
88	User Acceptance Test	60 days	Tue 9/30/14	Mon 12/22/14														
89	Cutover	80 days	Tue 12/23/14	Mon 4/13/15														
90	<b>Phase 2.2</b>	<b>640 days</b>	<b>Tue 5/13/14</b>	<b>Tue 10/25/16</b>														
91	<b>Scale up Environments to support Phase</b>	<b>0 days</b>	<b>Tue 4/14/15</b>	<b>Tue 4/14/15</b>	◆ 4/14													
92	Staging	0 days	Tue 4/14/15	Tue 4/14/15	◆ 4/14													
93	Production	0 days	Tue 4/14/15	Tue 4/14/15	◆ 4/14													
94	<b>Alameda</b>	<b>440 days</b>	<b>Tue 5/13/14</b>	<b>Mon 1/18/16</b>														
95	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14														
96	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15														
97	Court Config	80 days	Tue 8/5/14	Mon 11/24/14														
98	Config Test	100 days	Tue 11/25/14	Mon 4/13/15														
99	Training	60 days	Tue 11/25/14	Mon 2/16/15														
100	End To End Test	60 days	Tue 4/14/15	Mon 7/6/15														
101	User Acceptance Test	60 days	Tue 7/7/15	Mon 9/28/15														
102	Cutover	80 days	Tue 9/29/15	Mon 1/18/16														



ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
103	<b>Inyo</b>	<b>280 days</b>	<b>Tue 5/13/14</b>	<b>Mon 6/8/15</b>										
104	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
105	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
106	Court Config	60 days	Tue 8/5/14	Mon 10/27/14										
107	Config Test	60 days	Tue 10/28/14	Mon 1/19/15										
108	Training	60 days	Tue 10/28/14	Mon 1/19/15										
109	End To End Test	30 days	Tue 1/20/15	Mon 3/2/15										
110	User Acceptance Test	30 days	Tue 3/3/15	Mon 4/13/15										
111	Cutover	40 days	Tue 4/14/15	Mon 6/8/15										
112	<b>Marin</b>	<b>440 days</b>	<b>Tue 5/13/14</b>	<b>Mon 1/18/16</b>										
113	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
114	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
115	Court Config	80 days	Tue 8/5/14	Mon 11/24/14										
116	Config Test	100 days	Tue 11/25/14	Mon 4/13/15										
117	Training	60 days	Tue 11/25/14	Mon 2/16/15										
118	End To End Test	60 days	Tue 4/14/15	Mon 7/6/15										
119	User Acceptance Test	60 days	Tue 7/7/15	Mon 9/28/15										
120	Cutover	80 days	Tue 9/29/15	Mon 1/18/16										

ID	Task Name	Duration	Start	Finish	2013		2014		2015		2016		2017	
					H2	H1	H2	H1	H2	H1	H2	H1	H2	
121	<b>Ventura</b>	<b>600 days</b>	<b>Tue 5/13/14</b>	<b>Mon 8/29/16</b>										
122	Planning and Assessment	60 days	Tue 5/13/14	Mon 8/4/14										
123	<b>Civil, Probate and Small Claims (V3 functionality)</b>	<b>320 days</b>	<b>Tue 8/5/14</b>	<b>Mon 10/26/15</b>										
124	Data Conversion and Testing	120 days	Tue 8/5/14	Mon 1/19/15										
125	Court Config	60 days	Tue 8/5/14	Mon 10/27/14										
126	Config Test	60 days	Tue 10/28/14	Mon 1/19/15										
127	Training	60 days	Tue 10/28/14	Mon 1/19/15										
128	End To End Test	60 days	Tue 1/20/15	Mon 4/13/15										
129	User Acceptance Test	60 days	Tue 4/14/15	Mon 7/6/15										
130	Cutover	80 days	Tue 7/7/15	Mon 10/26/15										
131	<b>Family, Juvenile, Criminal and Traffic</b>	<b>420 days</b>	<b>Tue 1/20/15</b>	<b>Mon 8/29/16</b>										
132	Data Conversion and Testing	120 days	Tue 1/20/15	Mon 7/6/15										
133	Court Config	60 days	Tue 7/7/15	Mon 9/28/15										
134	Config Test	60 days	Tue 9/29/15	Mon 12/21/15										
135	Training	60 days	Tue 9/29/15	Mon 12/21/15										
136	End To End Test	60 days	Tue 12/22/15	Mon 3/14/16										
137	User Acceptance Test	60 days	Tue 3/15/16	Mon 6/6/16										
138	Cutover	60 days	Tue 6/7/16	Mon 8/29/16										

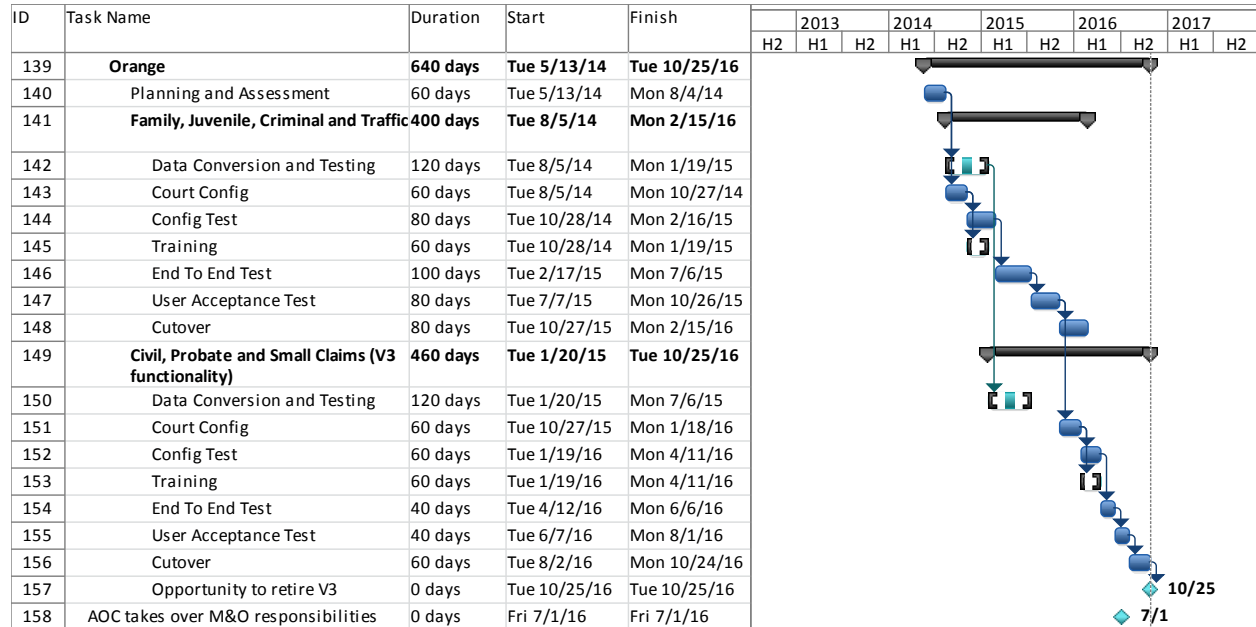


Figure 2-2: Summary deployment schedule for 11 court deployment

## 3. Deployment Cost Analysis

This section presents our analysis of the deployment costs and assumptions for the early adopter deployment at San Luis Obispo and for the Phase 2 courts that have been recommended in our analysis.

### 3.1 Early Adopter Deployment Cost Analysis

This subsection presents our assessment of the AOC's budget estimate for the San Luis Obispo early adopter court deployment of CCMS V4. The AOC has created multiple different scenarios for the early adopter court deployment. For our analysis, Grant Thornton used the 'Jan 5<sup>th</sup>' budget estimate version of the San Luis Obispo early adopter deployment budget. Our assessment of the early adopter budget estimate comprised the following steps:

- 1. Mapping the AOC budget categories to the State EAW format.** This activity enabled us to understand which costs were one-time versus which costs were continuing, and also which costs were directly related to court-level deployment activities versus which costs were associated with establishing and maintaining the state-level infrastructure that could support multiple subsequent court deployments.
- 2. Validating the AOC budget assumptions, and revising them where appropriate.** We assessed the reasonableness of the assumptions used by the AOC in constructing their budget, and where we considered it warranted, we revised the assumptions to reflect what we considered to be more comprehensive or realistic estimate of likely costs and their timing.
- 3. Developing an update early adopter deployment budget estimate.** We developed an updated early adopter deployment budget estimate that reflects all validated and revised assumptions, and that also shifted the time period for the early adopter deployment to match the timeframe presented in our recommended deployment approach and plan.

Each of these steps is described below.

#### 3.1.1 Summary of AOC Early Adopter Budget Estimate

The AOC's Jan 5<sup>th</sup> estimate of the budget required to implement CCMS V4 at the San Luis Obispo early adopter court comprises the following high-level categories, which generally align with the organizational structure of the AOC CCMS team:

- **San Luis Obispo Court Deployment Costs:** These costs include the contract staff engaged on-site to support the San Luis Obispo deployment, and the funds agreed by the AOC and by San Luis Obispo to be provided to the court to support the court staff engaged in the deployment. This category also includes an estimate of the funds required to implement and host at the California Court Technology Center (CCTC) a Document Management System (DMS) that will be integrated with CCMS V4 and that

will support the needs of San Luis Obispo and of other additional courts. The Jan 5<sup>th</sup> budget estimated these costs at \$8,261,942.

- **Deployment Support Costs:** These costs comprise certain CCTC hosting charges for the CCMS V4 technical environment, and AOC and contract staff supporting the deployment of CCMS to San Luis Obispo. The Jan 5<sup>th</sup> budget estimated these costs at \$21,072,160.
- **Product Application Support Costs:** These costs comprise the majority of the CCTC hosting charges, and also include AOC and contract staff engaged in program-level activities such as database administration, quality assurance and network security. The Jan 5<sup>th</sup> budget estimated these costs at \$21,261,992.
- **Program Management Office (PMO) Costs:** These costs include the costs for hosting of the development and integration test environments at Deloitte's Spring Valley data center, the costs for the Deloitte M&O contract, and the cost of AOC program management staff and facilities costs. The Jan 5<sup>th</sup> budget estimated these costs at \$52,213,559.

In total, the Jan 5<sup>th</sup> budget estimated the San Luis Obispo deployment cost at \$102,809,653. Note that this figure included a risk contingency of \$2,910,859, and also assumed that approximately \$16m in negotiated settlement from Deloitte would be used to support the San Luis Obispo deployment.

### 3.1.2 Translating the CCMS early adopter budget into the State EAW format

As an initial step to better understand and categorize the AOC's early adopter budget, Grant Thornton mapped the early adopter budget line items into the State EAW format, using two different EAWs: one for court-level deployment activities specifically related to San Luis Obispo, and another for state-level investments to implement infrastructure that would be used by San Luis Obispo, but that would also support multiple other courts.

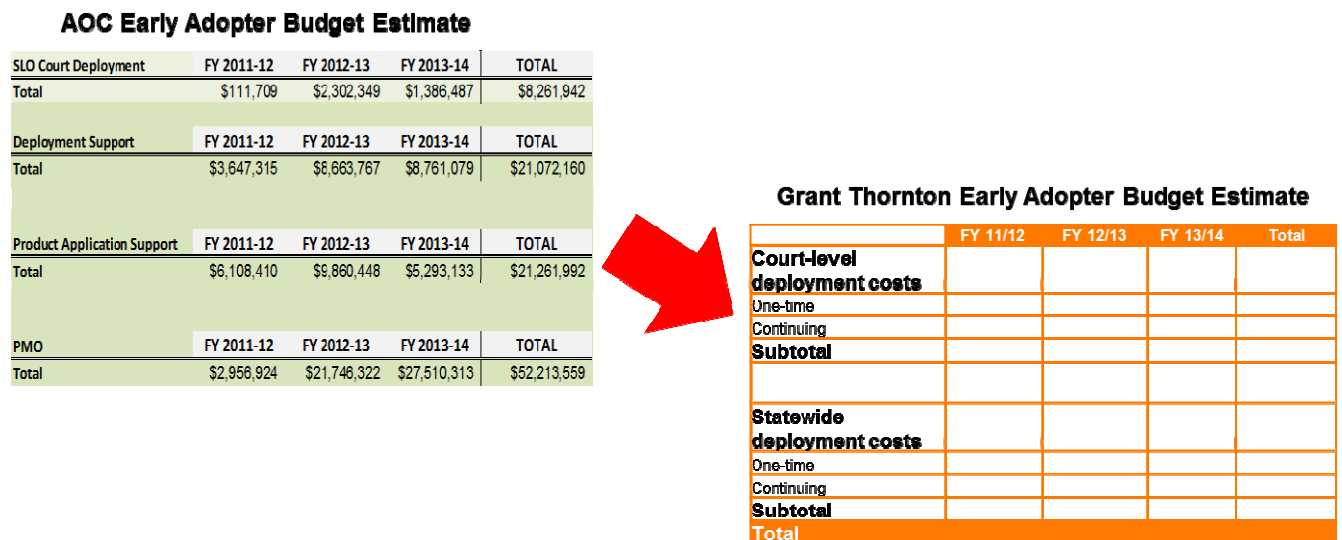


Figure 3-1: Translation of early adopter budget to State EAW format

### 3.1.3 Validating the AOC Budget Assumptions

We assessed the reasonableness of the assumptions used by the AOC in constructing their budget, and where we considered it warranted, we revised the assumptions to reflect what we considered to be more comprehensive or realistic estimates of likely costs and their timing. Specifically, we:

1. Validated that the cost basis for the hourly rates AOC staff, court staff, Contract Work Force (CWF) staff, and Deloitte staff were reasonable. In each case, the assumptions used by the AOC matched an average of the actual costs incurred by AOC in the recent past.
2. Validated that travel and accommodation costs had been included in the cost estimates for AOC and CWF staff that would be engaged in deployment activities at San Luis Obispo.
3. Validated that the estimated budget for court staff costs matched the actual funds agreed to be provided to San Luis Obispo to support deployment activities. San Luis Obispo has already received some of the funds agreed to be provided by the AOC, and the early adopter budget accurately reflects the balance of the funds to be provided in future fiscal years. However, San Luis Obispo's actual court staff costs will likely be larger than the amount agreed between the AOC and the court. While the early adopter budget accurately reflects the additional court staff funding for implementing CCMS V4 at San Luis Obispo, Grant Thornton used a different (and larger) figure derived from a Deloitte estimate of court staff costs as a foundation for estimating the deployment costs at the other Phase 2 courts.
4. Confirmed that the Document Management System (DMS) implementation strategy that the AOC has chosen for the early adopter court deployment will be a central DMS implementation at the California Court Technology Center (CCTC), which will support San Luis Obispo but will also have the capacity to support up to an additional 11 courts (depending on size). The DMS costs included in the early adopter budget were the hosting and professional services costs for establishing the DMS at the CCTC.
5. Provided the AOC with a revised set of assumptions for CCTC hosting costs for both production and non-production environments that matched our recommended CCMS V4 deployment plan and approach. These assumptions revised the timing of the early adopter court deployment, and also required changes to infrastructure sizing estimates to reflect the infrastructure needs of the courts immediately following San Luis Obispo in the recommended deployment sequence. The AOC took these revised assumptions and priced them, based on their current contract with SAIC for data center hosting services at the CCTC. This revised pricing was used in our revised early adopter budget estimate in place of the hosting cost estimate included with the 'Jan 5th' scenario provided to us by the AOC.
6. Added an estimate for a combined Independent Project Oversight Contractor (IPOC)/Independent Validation and Verification (IV&V) contract. The AOC's early adopter budget estimate did not include an estimate for IPOC/IV&V services. We assumed that an IPOC/IV&V contract would be required (and is a best practice on projects of this size and complexity). We estimated the IPOC/IV&V cost to be equal to 5% of the total professional services cost in each fiscal year.
7. Validated the hosting charges for the Deloitte development and integration test environments at Deloitte's Spring Valley data center. Deloitte currently hosts the CCMS development and integration test environments, where any changes to the core CCMS code base are applied and tested (e.g., annual legislative changes or requested enhancements to core functionality). The AOC early adopter budget assumed a cost of \$219k per month for these services. Since the development of the AOC's 'Jan 5th' budget estimate the cost for these services has been revised down to \$67,167 per month based on an

assumption that the AOC will take over hosting of these environments from Deloitte. We incorporated this revised pricing in our early adopter budget estimate.

8. Revised the assumptions related to ongoing M&O of CCMS V4 by Deloitte during the early adopter deployment. The AOC had made a number of assumptions relating to the number of Deloitte staff required to support the M&O of the San Luis Obispo deployment, using in part the V3 deployment experience as a guide. Since no quotes or estimates have been sought or received from Deloitte, these estimates are necessarily speculative, but they are also one of the largest elements of the AOC's early adopter budget. Grant Thornton revised the assumptions underlying the M&O budget estimate for the following reasons:
  - The AOC 'Jan 5<sup>th</sup>' budget estimate assumed 100% of the Deloitte M&O team would be engaged to support the San Luis Obispo deployment from the very beginning. We considered this unrealistic, since prior to the beginning of End-to-End testing only a few environments will be required to be supported, and since nothing will yet be in production there are no production operations to support.
  - The AOC budget estimate assumed that 55 Deloitte staff would be required to support the production San Luis Obispo operation. This figure was obtained by scaling up the approximately 40 staff that were engaged to support the concurrent deployment of CCMS V3 at Orange County, San Diego and Alhambra (LA). Combined, these three courts involved approximately 600 users. By comparison, the San Luis Obispo court deployment need support only 150 or so users.

Instead, Grant Thornton based our estimate of the required ongoing M&O resources on an analysis of the actual production staffing of the Deloitte team supporting V3 prior to the AOC's assumption of M&O responsibilities in November 2011. Analysis of the Deloitte M&O status reports for the period in question show an actual staffing of approximately 20 FTEs. This team supported approximately 1,500 users (or 75 users per M&O staff member). Grant Thornton used this ratio as the basis for the M&O staffing requirements for the Phase 2 courts. For the San Luis Obispo court deployment (where there will be only approximate 150 users) this ratio obviously cannot be used. Instead, Grant Thornton assumed a minimum M&O team necessary to support the required non-production and production environments during the deployment. Based on the AOC's prior experience in deploying V3, and on the number of case types involved in the V4 deployment, we estimated this at 25 staff. This team would scale up in size with the deployment of future courts to CCMS V4.

9. Validated the assumptions used by the AOC to include a risk contingency in the budget. The AOC assumed two levels of risk contingency: a contingency for all professional services contracts during the deployment (approximately 10%), and a contingency for data center hosting charges (approximately 3.5%). We considered the total contingency amounts for both categories to be reasonable given the extensive planning that has taken place for the San Luis Obispo deployment.
10. Added an estimated cost for the completion of CCMS V4 Release 1. Before CCMS V4 can be deployed at any court, the core software must be brought up-to-date with all legislative changes since the design requirements were 'frozen' during CCMS V4 development. The AOC has 85 legislative changes, 76 enhancements, and 25 bug fixes that they would like to incorporate into the CCMS V4 core software to create a 'CCMS V4 Release 1' that will be ready to implement at the early adopter court. Deloitte is currently completing the design work for these changes under an existing contract, but the AOC estimates that a new contract with a value of approximately \$5m will be required to apply all these changes to CCMS V4 by November 2012. The 'Jan 5<sup>th</sup>' early adopter budget assumed that the Deloitte negotiated cost reimbursement would include this additional contract cost, but Grant Thornton has

explicitly included it in our revised early adopter budget. We assumed that all of the estimated \$5m would be expended in FY 12/13.

- Removed consideration of a Deloitte delay cost reimbursement from the budget. The AOC is due approximately \$16m in delay cost reimbursement from Deloitte as a result of agreements relating to their CCMS V4 contract. The AOC's 'Jan 5th' early adopter budget assumed that the reimbursement amount would be renegotiated for support services or applied to Deloitte fees, so reducing the total amount of the early adopter budget from \$116,409,653 to \$102,809,653 (which was the total amount presented in the 'Jan 5th' budget). Grant Thornton has not assumed that this reimbursement amount will be applied to early adopter deployment costs, and is therefore presenting our revised early adopter budget without any assumed reimbursement-related cost reductions.

As Grant Thornton translated the AOC 'Jan 5th' early adopter budget into the State EAW format, we also applied all validated and revised assumptions to produce a revised early adopter budget in EAW format. The final modification that we made was to shift the dates of the deployment to match the recommended deployment timeline as shown in Section 2 above. That shift is presented below.

### 3.1.4 Translating Deployment Dates

As shown below, the AOC 'Jan 5th' early adopter deployment schedule assumed a start date of January, 2012 and a deployment date of October, 2013. By contrast, Grant Thornton's 11 court deployment scenario has the early adopter deployment beginning in September, 2012 and deploying in February, 2014 (note that our scenario assumes that CCMS standard configuration activities are complete prior to September, 2012).

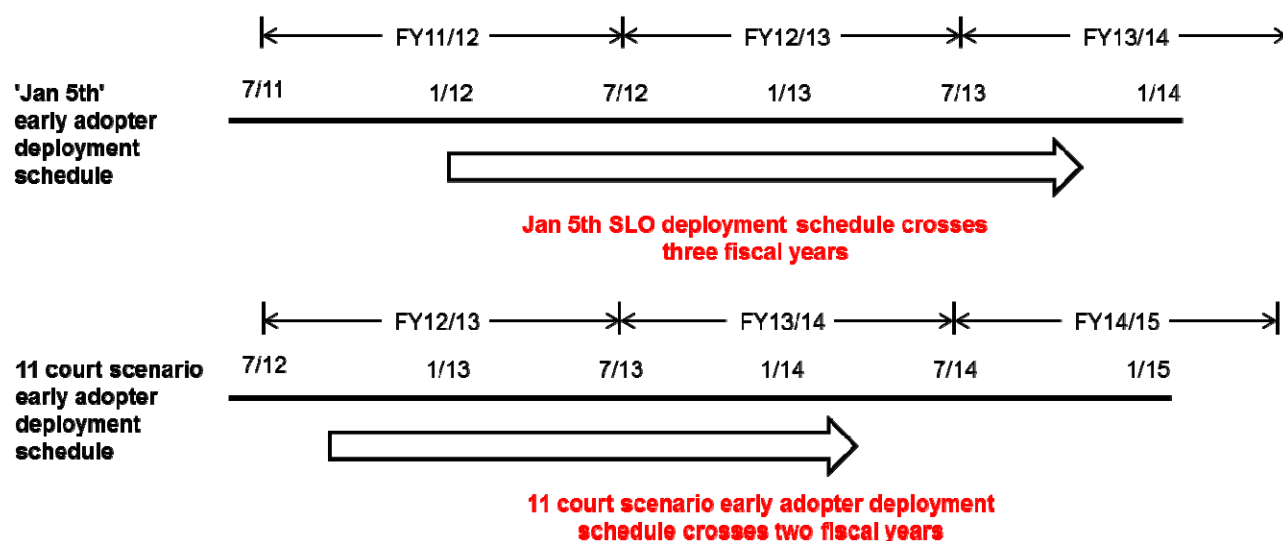


Figure 3-3: Comparison of AOC and Grant Thornton early adopter deployment schedules

As shown above, while the AOC 'Jan 5th' schedule crossed through three fiscal years (FY 11/12, FY 12/13 and FY 13/14) the Grant Thornton revised early adopter schedule only crosses two fiscal years (FY 12/13 and FY 13/14).

Additionally, for certain elements of the AOC 'Jan 5th' budget, the AOC assumed a full year's worth of cost in each of the three fiscal years. For example, both the 'PMO Hosting' and 'PMO Professional Service' line items of the 'Jan 5th' budget assume a full year of cost in FY 13/14 (\$2,608,200 and \$21,778,614 respectively).

However, the early adopter deployment does not take up the full FY 13/14 fiscal year. In the AOC 'Jan 5th' budget the deployment is complete in October, 2013 (only one quarter of the way through FY 13/14), while in the Grant Thornton revised early adopter budget the deployment is complete in February, 2014 (two thirds of the way through FY 13/14).

This reflects the fact that there are two ways to view the early adopter figures:

1. As a **budget request**, where all funds necessary to keep CCMS in operation for the fiscal years in question are included. For the 'Jan 5th' budget, this means all resources necessary to fund CCMS for FY 11/12, 12/13 and 13/14. This by necessity includes funds for CCMS M&O after the early adopter court goes live. This is the approach taken by the AOC in constructing their 'Jan 5th' budget estimate. This approach answers the question *"How much must be appropriated each year to implement CCMS V4 at San Luis Obispo and keep CCMS operational through FY 13/14?"*
2. As a **cost estimate**, where only those resources necessary to place the early adopter court into production would be included. Any costs after that would not be included in the estimate. This approach answers the question *"How much will it cost to implement CCMS at San Luis Obispo?"*

Both approaches are valid ways to view the early adopter budget, but the two approaches result in very different numbers. Grant Thornton presents our estimate of the early adopter budget from both perspectives on the following pages.

### 3.1.5 Summary of differences between AOC 'Jan 5th' budget and Grant Thornton budget

The Grant Thornton early adopter deployment budget differs from the AOC 'Jan 5th' budget in the following ways.

AOC 'Jan 5th' early adopter budget	Grant Thornton early adopter budget	Impact on early adopter budget
Deployment Support and Product Application Support hosting fees based on AOC deployment schedule	Deployment Support and Product Application Support hosting fees based on Grant Thornton deployment schedule	-\$7,227,054
No IPOC/IV&V budgeted	IPOC/IV&V budgeted	+\$1,695,650
Deloitte hosting at Spring Valley used old cost data	Deloitte hosting at Spring Valley uses new cost data based on transfer of hosting to AOC	-\$1,264,867
Deloitte M&O professional services estimate used data based on V3 deployment at Orange, San Diego and Alhambra (LA)	Deloitte M&O professional services estimate based on minimum sizing for team to support San Luis Obispo, scaling to take on additional users later	-\$17,626,122
Risk contingency approximately 10% of professional services fee and 3.5% CCTC hosting fees	Risk contingency approximately 10% of professional services fee and 3.5% CCTC hosting fees	-\$1,790,950 (due to difference in total fees subject to contingency)
Budget for CCMS V4 Release 1 assumed covered by Deloitte negotiated settlement	Budget for CCMS V4 Release 1 explicitly included	+\$5,000,000
Budget assumed full fiscal year of costs for certain categories even though deployment activities did not last for full year	Budget includes costs only for duration of early adopter court deployment	-\$25,156,005

Figure 3-4: Differences between AOC Jan 5th budget and Grant Thornton budget



### 3.1.6 Summary of early adopter budget analysis

As described above, Grant Thornton independently validated the AOC's 'Jan 5<sup>th</sup>' early adopter budget estimate. We translated the AOC budget format into the State EAW format, and validated (and in some cases revised) the assumptions upon which the budget was based. We also translated the estimated deployment dates to match the Grant Thornton deployment timeline, and identified a significant difference in the budget amount depending on whether full fiscal year figures were used, or whether only the costs to implement the early adopter court were used. The following figure presents Grant Thornton's summary assessment of the early adopter budget, showing the budget both from a full fiscal year perspective and from an implementation cost-only perspective.

Early Adopter Budget	FY11/12	FY12/13	FY13/14	Total	Notes
AOC Jan 5 <sup>th</sup> budget.	\$12,824,359	\$45,507,799	\$44,477,496	\$102,809,653	Total amount required through FY 13/14 based on AOC assumptions at time Jan 5 <sup>th</sup> budget was constructed.
Grant Thornton estimate, full fiscal year amounts.	\$203,313	\$30,591,976	\$50,801,021	\$81,596,310	Total amount required through FY 13/14 based on Grant Thornton assumptions.
Grant Thornton estimate, only amount required to place CCMS V4 into production at early adopter court.	\$203,313	\$30,591,976	\$25,645,016	\$56,440,305	Total amount required to implement CCMS V4 at San Luis Obispo in February 2014. Does not include any M&O costs after February 2014.

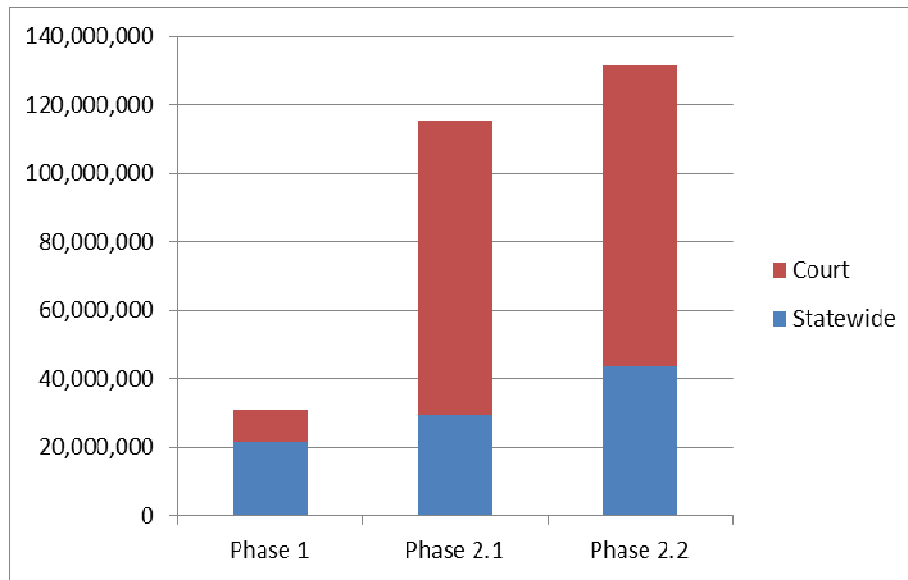
Figure 3-5: Grant Thornton summary assessment of the early adopter budget

The early adopter budget includes four major categories of costs. Figure 3-6 presents these categories for the Grant Thornton early adopter budget estimate through deployment of San Luis Obispo (i.e. including no M&O costs) is used.

	One time	Continuing
<b>Court level</b>	<p>Costs related to deploying at a specific court that end when the court is deployed (example: consultant costs to train staff at San Luis Obispo on CCMS V4).</p> <p><b>\$9,447,348</b></p>	<p>Costs related to deploying at a specific court that continue indefinitely (example: court staff costs to train newly hired employees on CCMS V4 once in M&amp;O).</p> <p><b>\$0</b></p>
<b>Statewide</b>	<p>Costs that support multiple court deployments and that end when all courts are deployed (example: costs to install and configure the shared Training environment at the CCTC).</p> <p><b>\$16,390,252</b></p>	<p>Costs that support multiple courts and that continue indefinitely (example: AOC program management office staff).</p> <p><b>\$30,602,705</b></p>

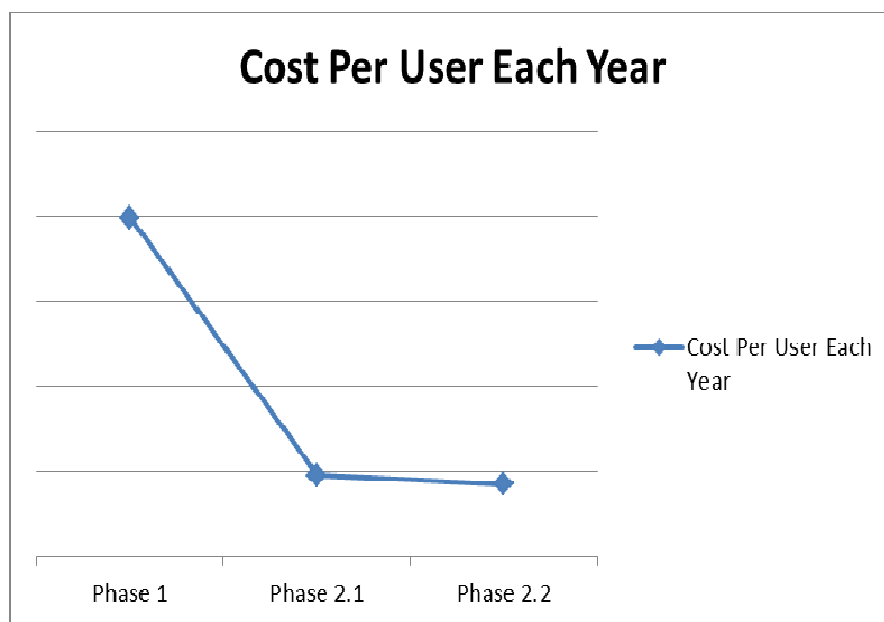
Figure 3-6: Four categories of early adopter costs

Because San Luis Obispo will be the first court to be deployed, the San Luis Obispo deployment budget includes a number of one-time Statewide costs that will not be required for subsequent court deployments. Also, the proportion of total statewide costs to total cost-level costs will be much greater than for subsequent courts. Figure 3-7 below illustrates this effect.



**Figure 3-7 Ratio of court-level to statewide costs as deployments continue**

Similarly, the cost-per-user for the early adopter court deployment will be much greater than the cost-per-user for later deployments because a large percentage of the San Luis Obispo deployment cost relate to Statewide infrastructure that will be used as future courts are implemented. Figure 3-8 below illustrates this effect.



**Figure 3-8 Change in cost per user as additional courts are implemented each year**

Grant Thornton conducted an independent assessment of the AOC's 'Jan 5th' early adopter budget. The results of our analysis can be summarized as:

- Many AOC 'Jan 5th' budget assumptions were validated as reasonable and the related budget figures required no change other than to reformat the figures into the State EAW format.
- Some assumptions were based on out-of-date data and were updated to reflect more current data on items such as contract pricing.
- Grant Thornton disagreed with some of the assumptions (e.g., the number of Deloitte staff required for M&O) and we therefore made changes to the related budget items based on our own assumptions.
- Some required costs (i.e., IPOC/IV&V and CCMS V4 Release 1 completion) were not included and were therefore added by Grant Thornton.
- The AOC 'Jan 5th' budget included costs for months during FY13/14 that were after the completion of San Luis Obispo deployment (i.e., these are no longer deployment costs but instead production M&O costs). We created a version of the budget that restricted our costs to only the time period during which the San Luis Obispo court deployment was ongoing. This had the effect of significantly reducing the deployment budget amount.
- As a result of the above, we estimate that approximately \$56,440,305 will be required to deploy San Luis Obispo on CCMS V4. Of this amount, approximately \$46,992,957 will be used to create the statewide foundation for future court deployments, while \$9,447,348 will be used for court-specific deployment activities.
- Given the large cost involved in deploying San Luis Obispo on CCMS V4 (far larger than would be required for a stand-alone CMS deployment), deployment of San Luis Obispo on CCMS V4 can only be

justified if the Judicial Branch also intends to deploy multiple additional courts on the statewide CCMS V4 infrastructure.

### 3.2 Phase 2 Court Deployment Cost Analysis

This subsection presents our estimate of the cost to deployment CCMS V4 to the additional ten Phase 2 courts identified in Section 2 above. Subsection 3.2.1 presents the estimate of one-time court-level deployment costs (i.e. those costs related to deployment activities at a specific court), subsection 3.2.2 presents the estimate of one-time state-wide deployment costs (i.e. those costs related to the implementation of state-wide infrastructure that will be leveraged by multiple courts), and subsection 3.2.3 presents the estimate of continuing IT costs (i.e. the on-going costs for maintaining and operating CCMS V4).

#### 3.2.1 One-time Court-level Deployment Cost Estimates and Assumptions

Figure 3-9 below illustrates the approach by which Grant Thornton developed the one-time CCMS deployment IT cost estimates for the Phase 2 courts.

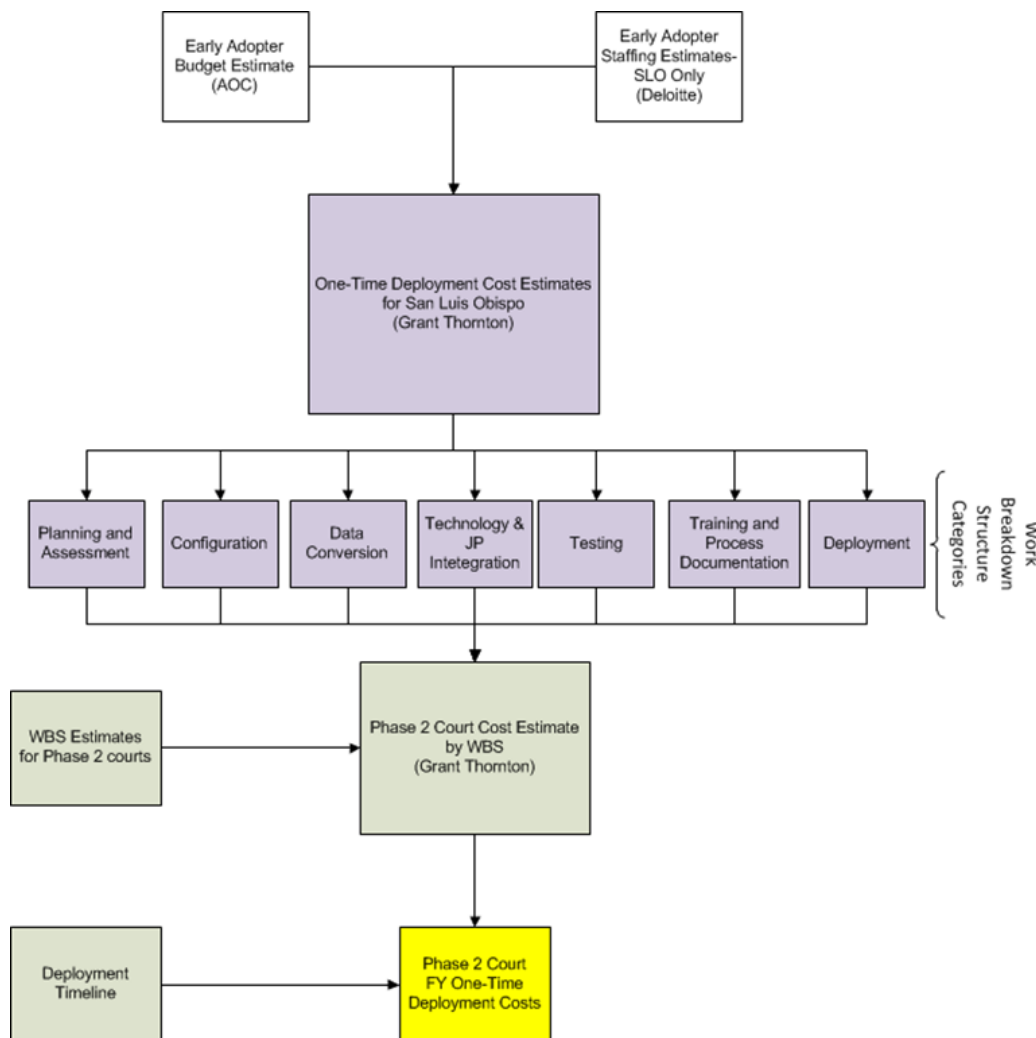


Figure 3-9: Approach to estimation of Phase 2 court deployment costs

The following describes the steps in the approach presented in Figure 3-9 to develop the one-time IT cost estimates for the Phase 2 CCMS V4 deployment. The major steps carried out by Grant Thornton to develop the one-time IT costs for the CCMS V4 deployment were as follows:

**1. Develop One-Time deployment cost estimate for San Luis Obispo :**

- As described in subsection 3.1 above, Grant Thornton leveraged the AOC 'Jan 5th' early adopter budget materials as well as other readiness assessment materials from Deloitte to develop a revised early adopter deployment cost estimate.
- Our estimate of the one-time deployment costs for San Luis Obispo (\$9,912,258 ) was used as a foundation upon which to base all our other Phase 2 cost estimates.

**2. Develop a Work Breakdown Structure (WBS) to support cost analysis:**

- Grant Thornton developed a WBS for the one-time deployment activities that reflected the major categories of deployment activity that would drive cost during the deployment. The WBS comprised the following categories of activity:
  - Planning and Assessment;
  - Configuration;
  - Data Conversion;
  - Technology and Justice Partner Integration;
  - Testing;
  - Process Documentation and Testing; and
  - Deployment (Cutover).

**3. Distribute the early adopter one-time deployment costs by WBS element and by type of staff:**

- Grant Thornton allocated the early adopter one-time deployment costs across the seven WBS categories and also distributed the costs among the three categories of staff involved in the deployment:
  - **AOC Staff Costs:**
    - Total AOC staff costs for the early adopter deployment are based on AOC 'Jan 5th' estimate of \$2,453,139 for Deployment Support Staff. Based on interviews with the AOC, 75% of these costs were considered one-time court deployment costs, while 25% were considered program-level costs.
    - Deployment support staffing costs were allocated across the WBS elements by fiscal year based upon analysis of the anticipated roles of these staff and of the deployment activities planned to occur in each fiscal year.
  - **Court Staff Costs:**
    - Court staff cost estimates were based upon the following:

- A Deloitte estimate of the number court staff required during each month of the San Luis Obispo deployment, and of the activities which those staff would support;
  - An AOC estimates of the average hourly cost of court staff; and
  - An assumption of 160 hours of work per Full Time Equivalent per month
- **Contract Workforce (CWF) Costs:**
- CWF costs were based upon an analysis of AOC's 'Jan 5th' budget documents, including:
    - Jan 5th estimates by fiscal year for CWF staff in the SLO Deployment Professional Services and Deployment Support Professional Services budget line items; and
    - An analysis of distribution of CWF costs in the 'SLO\_Only\_Detail- PMO Detail\_10252011.xlsx' worksheet and interviews with AOC management and staff.

Based on the activities described on the prior pages, Table 3-1 presents the resulting distribution of total one-time deployment costs for San Luis Obispo.

WBS Element	Cost Type			
	Court Staff	AOC Staff	CWF	
<b>Planning and Assessment</b>		\$124,190	\$767,257	\$891,446
<b>Configuration</b>	\$665,280	\$165,353	\$1,021,569	\$1,852,202
<b>Data Conversion</b>	\$240,240	\$124,190	\$767,257	\$1,131,686
<b>Technology Support (incl JP Int)</b>	\$246,400	\$164,709	\$1,017,589	\$1,428,698
<b>Testing</b>	\$369,600	\$172,965	\$1,068,596	\$1,611,161
<b>Process Documentation and Training</b>	\$400,400	\$160,493	\$991,543	\$1,552,436
<b>Cutover</b>	\$301,840	\$159,205	\$983,585	\$1,444,629
<b>Total</b>	\$2,223,760	\$1,071,103	\$6,617,395	\$9,912,258

**Table 3-1: Distribution of total one-time deployment costs for San Luis Obispo**

While Document Management System (DMS)-related activities are also a part of the WBS structure, Grant Thornton considered the San Luis Obispo DMS costs to be statewide one-time costs, not court-level one-time costs. As such Grant Thornton did not include the DMS costs within its one-time court-level deployment cost estimates for those courts anticipated to leverage the CCTC DMS.

San Luis Obispo's data conversion activities are unusual in that no automated conversion of legacy data is required. As such the data conversion costs for San Luis Obispo were assumed to significantly lower than for other comparable courts where automated conversion would be required.

Based upon the distribution of early adopter deployment one-time costs by year and by WBS element, Grant Thornton developed the following proportional cost allocation model for the Phase 2 courts:

WBS Element	Cost Type		
	Court Staff	AOC Staff	CWF
Planning and Assessment	0.0%	13.9%	86.1%
Configuration	35.9%	8.9%	55.2%
Data Conversion	21.2%	11.0%	67.8%
Technology Support (incl JP Int)	17.2%	11.5%	71.2%
DMS	0.0%	0.0%	100.0%
Testing	22.9%	10.7%	66.3%
Process Documentation and Training	25.8%	10.3%	63.9%
Cutover	20.9%	11.0%	68.1%

**Table 3-2: Distribution of Total one-time deployment costs for 10 Phase 2 courts**

Grant Thornton applied this allocation to the distribution of one-time court costs for each of the Phase 2 courts. Grant Thornton then conducted the following activities to develop one-time deployment cost estimates for the Phase 2 courts:

- **Developed a deployment cost driver matrix:** To better understand the unique circumstances of each court and to understand how such factors might impact different courts, Grant Thornton developed a Deployment Cost Driver Matrix that was organized by court and by WBS category. Within this matrix, we identified San Luis Obispo as the baseline and assigned a cost driver ratio of "1.00" for each cost driver.
- **Analysis of court factors and attributes:** We then summarized the information by WBS category that we had acquired from courts through site visits, conference calls and through a review of available court data. This information included factors such as court size in relation to San Luis Obispo, current and planned level of Justice Partner integration, use of an existing DMS, and anticipated level of required local configuration. Based upon this information, we assessed the degree to which the court's specific circumstances might impact its deployment costs for each WBS category. Based upon this assessment, we assigned ratios to each WBS category for each court to indicate the degree to which the court's circumstances might increase or decrease the court's one-time deployment costs in comparison to the San Luis Obispo deployment costs.
- **Estimate Phase 2 court costs.** The above ratios were multiplied by the baseline costs (i.e. the San Luis Obispo deployment costs) for each WBS element to generate one-time deployment cost estimates for the Phase 2 courts by WBS element.
- **Allocate costs.** We used the cost allocation model described on the previous page to allocate court one-time cost estimates among the three staff types.
- **Reformat and incorporate into the EAW.** Upon developing one-time deployment estimates for the Phase 2 courts, Grant Thornton reformatted the costs and incorporated the costs into the EAW format.

The following pages present the one-time deployment cost estimates for each WBS category, showing the cost driver ratios for each court and the estimates cost by court and by staff type.

	Weighted Ratio	Planning and Assessments			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Fresno</b>	0.2	\$178,289	\$0	\$24,838	\$153,451
<b>Inyo</b>	0.5	\$445,723	\$0	\$62,095	\$383,628
<b>Marin</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Mendocino</b>	0.8	\$668,585	\$0	\$93,142	\$575,442
<b>Orange</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708
<b>San Diego</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708
<b>San Joaquin</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Santa Cruz</b>	1.0	\$891,446	\$0	\$124,190	\$767,257
<b>Ventura</b>	0.5	\$445,723	\$0	\$62,095	\$383,628
<b>Alameda</b>	1.2	\$1,069,735	\$0	\$149,027	\$920,708

Table 3-3: Phase 2 court deployment estimates by WBS element: Planning and Assessments

	Weighted Ratio	Technology/JP Integration			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$1,428,698	\$246,400	\$164,709	\$1,017,589
<b>Fresno</b>	2.0	\$2,857,396	\$492,800	\$329,418	\$2,035,179
<b>Inyo</b>	0.4	\$571,479	\$98,560	\$65,884	\$407,036
<b>Marin</b>	1.0	\$1,428,698	\$246,400	\$164,709	\$1,017,589
<b>Mendocino</b>	0.8	\$1,071,524	\$184,800	\$123,532	\$763,192
<b>Orange</b>	2.5	\$3,571,745	\$616,000	\$411,772	\$2,543,973
<b>San Diego</b>	3.0	\$4,286,094	\$739,200	\$494,126	\$3,052,768
<b>San Joaquin</b>	1.0	\$1,428,698	\$246,400	\$164,709	\$1,017,589
<b>Santa Cruz</b>	1.0	\$1,428,698	\$246,400	\$164,709	\$1,017,589
<b>Ventura</b>	1.0	\$1,428,698	\$246,400	\$164,709	\$1,017,589
<b>Alameda</b>	3.0	\$4,286,094	\$739,200	\$494,126	\$3,052,768

Table 3-4: Phase 2 court deployment estimates by WBS element: Technology/Justice Partner Integration



	Weighted Ratio	Configuration			
		Total	Court Staff	AOC Staff	CFW
<b>San Luis Obispo</b>	1.0	<b>\$1,852,202</b>	\$665,280	\$165,353	\$1,021,569
<b>Fresno</b>	0.8	<b>\$1,389,151</b>	\$498,960	\$124,015	\$766,176
<b>Inyo</b>	0.5	<b>\$926,101</b>	\$332,640	\$82,676	\$510,784
<b>Marin</b>	0.5	<b>\$926,101</b>	\$332,640	\$82,676	\$510,784
<b>Mendocino</b>	0.5	<b>\$926,101</b>	\$332,640	\$82,676	\$510,784
<b>Orange</b>	1.5	<b>\$2,778,302</b>	\$997,920	\$248,029	\$1,532,353
<b>San Diego</b>	2.0	<b>\$3,704,403</b>	\$1,330,560	\$330,706	\$2,043,137
<b>San Joaquin</b>	1.0	<b>\$1,852,202</b>	\$665,280	\$165,353	\$1,021,569
<b>Santa Cruz</b>	0.5	<b>\$926,101</b>	\$332,640	\$82,676	\$510,784
<b>Ventura</b>	1.0	<b>\$1,852,202</b>	\$665,280	\$165,353	\$1,021,569
<b>Alameda</b>	1.0	<b>\$1,852,202</b>	\$665,280	\$165,353	\$1,021,569

Table 3-5: Phase 2 court deployment estimates by WBS element: Configuration

	Weighted Ratio	Conversion			
		Total	Court Staff	AOC Staff	CFW
<b>San Luis Obispo</b>	1.0	<b>\$1,131,686</b>	\$240,240	\$124,190	\$767,257
<b>Fresno</b>	1.0	<b>\$1,131,686</b>	\$240,240	\$124,190	\$767,257
<b>Inyo</b>	1.0	<b>\$1,131,686</b>	\$240,240	\$124,190	\$767,257
<b>Marin</b>	2.0	<b>\$2,263,372</b>	\$480,480	\$248,379	\$1,534,513
<b>Mendocino</b>	1.0	<b>\$1,131,686</b>	\$240,240	\$124,190	\$767,257
<b>Orange</b>	6.0	<b>\$6,790,117</b>	\$1,441,440	\$745,137	\$4,603,540
<b>San Diego</b>	8.0	<b>\$9,053,489</b>	\$1,921,920	\$993,516	\$6,138,053
<b>San Joaquin</b>	3.0	<b>\$3,395,058</b>	\$720,720	\$372,569	\$2,301,770
<b>Santa Cruz</b>	2.0	<b>\$2,263,372</b>	\$480,480	\$248,379	\$1,534,513
<b>Ventura</b>	3.0	<b>\$3,395,058</b>	\$720,720	\$372,569	\$2,301,770
<b>Alameda</b>	4.0	<b>\$4,526,745</b>	\$960,960	\$496,758	\$3,069,027

Table 3-6: Phase 2 court deployment estimates by WBS element: Conversion

	Weighted Ratio	Testing			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	<b>\$1,611,161</b>	\$369,600.00	\$172,964.82	\$1,068,595.88
<b>Fresno</b>	1.2	<b>\$1,963,746</b>	\$450,483	\$210,816	\$1,302,447
<b>Inyo</b>	0.6	<b>\$960,020</b>	\$220,228	\$103,062	\$636,729
<b>Marin</b>	1.0	<b>\$1,686,226</b>	\$386,820	\$181,023	\$1,118,382
<b>Mendocino</b>	0.7	<b>\$1,142,600</b>	\$262,112	\$122,663	\$757,825
<b>Orange</b>	3.0	<b>\$4,797,848</b>	\$1,100,626	\$515,069	\$3,182,154
<b>San Diego</b>	3.9	<b>\$6,223,245</b>	\$1,427,611	\$668,091	\$4,127,542
<b>San Joaquin</b>	1.5	<b>\$2,437,582</b>	\$559,181	\$261,685	\$1,616,717
<b>Santa Cruz</b>	1.0	<b>\$1,686,226</b>	\$386,820	\$181,023	\$1,118,382
<b>Ventura</b>	1.5	<b>\$2,437,582</b>	\$559,181	\$261,685	\$1,616,717
<b>Alameda</b>	2.4	<b>\$3,894,110</b>	\$893,308	\$418,049	\$2,582,753

Table 3-7: Phase 2 court deployment estimates by WBS element: Testing

	Weighted Ratio	Training			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	<b>\$1,552,436</b>	\$400,400	\$160,493	\$991,543
<b>Fresno</b>	2.5	<b>\$3,881,091</b>	\$1,001,000	\$401,232	\$2,478,858
<b>Inyo</b>	0.1	<b>\$194,055</b>	\$50,050	\$20,062	\$123,943
<b>Marin</b>	0.6	<b>\$931,462</b>	\$240,240	\$96,296	\$594,926
<b>Mendocino</b>	0.4	<b>\$620,975</b>	\$160,160	\$64,197	\$396,617
<b>Orange</b>	7.0	<b>\$10,867,054</b>	\$2,802,800	\$1,123,451	\$6,940,803
<b>San Diego</b>	7.0	<b>\$10,867,054</b>	\$2,802,800	\$1,123,451	\$6,940,803
<b>San Joaquin</b>	1.8	<b>\$2,716,764</b>	\$700,700	\$280,863	\$1,735,201
<b>Santa Cruz</b>	0.8	<b>\$1,241,949</b>	\$320,320	\$128,394	\$793,235
<b>Ventura</b>	2.0	<b>\$3,104,873</b>	\$800,800	\$320,986	\$1,983,087
<b>Alameda</b>	1.5	<b>\$2,328,654</b>	\$600,600	\$240,739	\$1,487,315

Table 3-8: Phase 2 court deployment estimates by WBS element: Training and Process Documentation

	Weighted Ratio	Deployment			
		Total	Court Staff	AOC Staff	CWF
<b>San Luis Obispo</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Fresno</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169
<b>Inyo</b>	0.3	\$433,389	\$90,552	\$47,761	\$295,075
<b>Marin</b>	0.5	\$722,315	\$150,920	\$79,602	\$491,792
<b>Mendocino</b>	0.5	\$722,315	\$150,920	\$79,602	\$491,792
<b>Orange</b>	2.5	\$3,611,573	\$754,600	\$398,012	\$2,458,962
<b>San Diego</b>	2.5	\$3,611,573	\$754,600	\$398,012	\$2,458,962
<b>San Joaquin</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Santa Cruz</b>	1.0	\$1,444,629	\$301,840	\$159,205	\$983,585
<b>Ventura</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169
<b>Alameda</b>	2.0	\$2,889,259	\$603,680	\$318,409	\$1,967,169

Table 3-9: Phase 2 court deployment estimates by WBS element: Deployment (Cutover)

	Deployment Total			
	Deployment Total	Total Court Staff	Total AOC Staff	Total CWF
<b>San Luis Obispo</b>	\$9,912,258	\$2,223,760	\$1,071,103	\$6,617,395
<b>Fresno</b>	\$14,290,618	\$3,287,163	\$1,532,918	\$9,470,537
<b>Inyo</b>	\$3,630,182	\$0	\$505,729	\$3,124,453
<b>Marin</b>	\$8,849,620	\$1,837,500	\$976,875	\$6,035,244
<b>Mendocino</b>	\$6,283,785	\$1,330,872	\$690,002	\$4,262,910
<b>Orange</b>	\$35,234,376	\$7,713,386	\$3,590,497	\$23,930,493
<b>San Diego</b>	\$41,437,594	\$8,976,691	\$4,156,930	\$28,303,973
<b>San Joaquin</b>	\$14,166,380	\$3,194,121	\$1,528,572	\$9,443,687
<b>Santa Cruz</b>	\$9,882,422	\$2,068,500	\$1,088,576	\$6,725,345
<b>Ventura</b>	\$16,864,395	\$3,596,061	\$1,665,805	\$11,602,529
<b>Alameda</b>	\$23,468,799	\$4,463,028	\$2,282,463	\$16,723,308
	\$184,020,428	\$38,691,082	\$19,089,471	\$126,239,875

Table 3-10: Phase 2 court deployment estimates by WBS element: Deployment Total

In addition to the estimated one-time court deployment costs above, Grant Thornton also added a 10% risk contingency for each court deployment to create to total estimated one-time deployment costs for the Phase 2 courts.

### 3.2.2 One-time statewide deployment cost estimates and assumptions

One-time statewide IT costs for the CCMS V4 deployment comprise those costs that are related to statewide assets and that are incurred during deployment of CCMS but not during M&O on an ongoing basis. The one-time statewide IT costs estimate includes the following elements:

- CCTC Document Management System Costs.** These include the build-out of the shared DMS environment at the CCTC, and the professional services costs associated with implementing the DMS at the CCTC and integrating the DMS with CCMS.
- Release 1 of CCMS.** Before CCMS V4 can be deployed at any court, the core software must be brought up-to-date with all legislative changes since the design requirements were 'frozen' during CCMS V4 development. The AOC has 85 legislative changes, 76 enhancements, and 25 bug fixes that they would like to incorporate into the CCMS V4 core software to create a 'CCMS V4 Release 1' that will be ready to implement at the early adopter court. Deloitte is currently completing the design work for these changes under an existing contract, but a new contract for approximately \$5m will be required to apply all these changes to CCMS V4 by November 2012. We assumed that all the estimated \$5m would be expended in FY 12/13.
- One-time CCTC Hosting Charges.** The fees paid by the AOC for hosting of CCMS at the CCTC include both one-time and continuing elements. The one-time elements are included under this cost category.
- IPOC/IV&V Contract Costs.** Grant Thornton assumed that an IPOC/IV&V contract would be in place during each year of the deployment, and that the value of the contract would be equal to 5% of total software customization contract costs (both court-level and statewide).

Table 3-11 presents the estimated one-time statewide costs by fiscal year.

Statewide Costs	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>One-Time IT Project Costs</b>														
Staff (Salaries & Benefits)	0.0	\$0	2.8	\$211,026	1.9	\$146,008	0.0	\$0	0.0	\$0	0.0	\$0	4.7	\$357,034
Hardware Purchase	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Software Purchase/License	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>														
Software Customization	7.1	\$0	24.2	\$8,521,895	9.0	\$3,173,714	0.0	\$0	0.0	\$0	0.0	\$0	40.2	\$11,695,609
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IV&V Services	0.0	\$0	3.0	\$1,061,588	1.8	\$634,062	0.0	\$2,734,352	0.0	\$1,457,951	0.0	\$182,461	4.8	\$6,070,414
Other Contract Services*	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>TOTAL Contract Services</b>	<b>7.1</b>	<b>\$0</b>	<b>27.2</b>	<b>\$9,583,482</b>	<b>10.8</b>	<b>\$3,807,777</b>	<b>0.0</b>	<b>\$2,734,352</b>	<b>0.0</b>	<b>\$1,457,951</b>	<b>0.0</b>	<b>\$182,461</b>	<b>45.0</b>	<b>\$17,766,023</b>
<b>Data Center Services</b>	0.0	\$192,218	0.0	\$476,601	0.0	\$2,959,710	0.0	\$1,658,368	0.0	\$1,691,323	0.0	\$567,436	0.0	\$7,548,635
<b>Agency Facilities</b>	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Other - Contingency costs (10%)</b>	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Total One-time IT Costs</b>	<b>7.1</b>	<b>\$192,218</b>	<b>30.0</b>	<b>\$10,271,109</b>	<b>12.7</b>	<b>\$6,913,499</b>	<b>0.0</b>	<b>\$4,392,720</b>	<b>0.0</b>	<b>\$3,149,274</b>	<b>0.0</b>	<b>\$749,897</b>	<b>49.8</b>	<b>\$25,666,712</b>

Table 3-11: Estimated one-time statewide costs by fiscal year

### 3.2.3 Continuing IT Cost Estimates and Assumptions

Continuing IT costs for the CCMS V4 deployment comprise those ongoing M&O costs that will be required indefinitely once the system is in production, plus any current M&O costs (such as AOC support for the V2 system) that can be discontinued once those costs are no longer incurred. The continuing IT cost estimate includes the following elements:

- **Statewide CCMS M&O costs.** These include hosting for CCMS at the CCTC, Deloitte's M&O contract for CCMS V4, and ongoing AOC staff costs to support program management activities. These costs were based on the revised early adopter budget estimate described in subsection 3.1.
- **Continuing M&O of current CMS.** Until each of the 11 courts has implemented CCMS V4 they will be required to continue to operate and maintain their current case management system. The costs of this activity are captured here through the date of full CCMS V4 implementation at each court.
- **Continuing AOC support of V2 and V3.** The AOC currently makes supplemental payments to support the operations of V2 and V3. These payments were assumed to continue until V2 and V3 are retired based on the deployment timeline presented in subsection 2.3.
- **Court-level CCMS M&O costs.** Since all CCMS instances are assumed to run at the CCTC, there are few operations and maintenance costs that must be carried out locally by the courts. Court CCMS M&O costs are limited to out of pocket local expenses such as training new staff on CCMS, participating in the CCMS governance process with the AOC, and local testing of new changes to CCMS. We assume that these costs are equal to 10% of the annual court staff costs expended by each court to maintain its current CMS' in the last year prior to CCMS deployment.

Table 3-12 presents the estimated continuing IT costs for each year fiscal through FY20/21.

	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>										
Staff (Salaries & Benefits)	117.0	\$12,608,778	144.8	\$15,208,533	142.1	\$15,466,144	111.5	\$14,511,739	102.9	\$5,938,060
Hardware Lease/Maintenance	0.0	\$1,344,524	0.0	\$3,612,196	0.0	\$1,014,091	0.0	\$871,300	0.0	\$3,000,840
Software Maintenance/Licenses	0.0	\$2,802,491	0.0	\$2,819,665	0.0	\$2,890,111	0.0	\$2,776,979	0.0	\$1,227,368
Telecommunications	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583
<b>Contract Services</b>										
Software Customization	0.0	\$1,425,000	0.0	\$1,432,000	0.0	\$1,439,000	0.0	\$1,446,000	0.0	\$847,583
Project Management	0.0	\$0	0.0	\$173,198	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IT&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$2,345,766	13.7	\$11,459,242	14.5	\$12,053,050	0.0	\$18,040,015	0.0	\$31,638,701
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$3,770,766</b>	<b>13.7</b>	<b>\$13,064,439</b>	<b>14.5</b>	<b>\$13,670,047</b>	<b>0.0</b>	<b>\$19,664,012</b>	<b>0.0</b>	<b>\$32,664,282</b>
<b>Data Center Services</b>	<b>0.0</b>	<b>\$3,464,801</b>	<b>0.0</b>	<b>\$5,839,226</b>	<b>0.0</b>	<b>\$11,319,716</b>	<b>0.0</b>	<b>\$12,871,736</b>	<b>0.0</b>	<b>\$10,850,308</b>
<b>Agency Facilities</b>	<b>0.0</b>	<b>\$77,614</b>	<b>0.0</b>	<b>\$677,849</b>	<b>0.0</b>	<b>\$489,031</b>	<b>0.0</b>	<b>\$675,123</b>	<b>0.0</b>	<b>\$616,650</b>
<b>Other</b>	<b>0.0</b>	<b>\$25,232,928</b>	<b>0.0</b>	<b>\$19,794,367</b>	<b>0.0</b>	<b>\$17,090,435</b>	<b>0.0</b>	<b>\$16,664,616</b>	<b>0.0</b>	<b>\$12,512,028</b>
<b>Total Continuing IT Costs</b>	<b>117.0</b>	<b>\$50,726,903</b>	<b>158.6</b>	<b>\$62,446,275</b>	<b>156.6</b>	<b>\$63,378,575</b>	<b>111.5</b>	<b>\$69,461,505</b>	<b>102.9</b>	<b>\$67,657,119</b>

	FY 2016/17		FY 2017/18		FY 2018/19		FY 2019/20		FY 2020/21		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
<b>Continuing IT Project Costs</b>												
Staff (Salaries & Benefits)	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	0.0	\$19,546,181	618.3	\$161,464,158
Hardware Lease/Maintenance	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$9,842,952
Software Maintenance/Licenses	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$12,516,613
Telecommunications	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$6,589,583
<b>Contract Services</b>												
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$6,589,583
Project Management	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$177,997	0.0	\$1,597,174
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IV&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	0.0	\$1,318,240	28.2	\$82,127,975
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$1,496,237</b>	<b>0.0</b>	<b>\$1,496,237</b>	<b>0.0</b>	<b>\$1,496,237</b>	<b>0.0</b>	<b>\$1,496,237</b>	<b>0.0</b>	<b>\$1,496,237</b>	<b>28.2</b>	<b>\$90,314,732</b>
Data Center Services	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$9,480,642	0.0	\$91,748,999
Agency Facilities	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$616,500	0.0	\$5,618,770
Other	0.0	\$4,369,016	0.0	\$331,822	0.0	\$331,822	0.0	\$331,822	0.0	\$331,822	0.0	\$96,990,680
<b>Total Continuing IT Costs</b>	<b>0.0</b>	<b>\$35,508,577</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>0.0</b>	<b>\$31,471,383</b>	<b>646.6</b>	<b>\$475,086,487</b>

Table 3-12: Estimated CCMS V4 continuing IT costs

## 4. Benefits Analysis

This section presents our analysis of program costs and for the early adopter court and for the recommended Phase 2 courts that were selected for our analysis. Program costs include the labor and facilities costs related to performing the trial court functions most likely to be impacted by CCMS.

### 4.1 Validation of Benefit Analysis Tools and Drivers

This subsection presents our analysis of the quantitative and qualitative program benefits that may result to trial court business processes as a result of deploying the CCMS V4 system to the 11 selected courts. Within our quantitative analysis, we:

- a) Calculate the workload costs associated with performing key administrative business processes;
- b) Estimate these costs over a ten-year period;
- c) Calculate the impact of the V4 solution on these business processes; then
- d) Compare these future costs to current costs to estimate the net impact.

A net benefit will result if it is determined that the cost projections associated with the CCMS V4 environment result in a net reduction of program costs, while a net cost will result if it is determined that the cost projections result in a net increase of program costs. The following formula illustrates our comparative analysis of the two projections:

$$\textit{Total Baseline Program Cost Projections} - \textit{Total V4 Program Cost Projections} = \textit{Net Benefit}$$

Our analysis of the program costs comprised the following steps:

1. **Select key business processes.** Grant Thornton identified a number of key business processes by which to quantify workload costs for the selected 11 courts. While we did not include an exhaustive set of business processes, we did select those processes that court staff indicated were heavily labor intensive and that contributed significantly to workload activities.
2. **Analyze the deployment schedule.** The sequence and calculation of program cost impacts over the period of our analysis was based upon our recommended deployment schedule.
3. **Validate program cost driver assumptions.** Grant Thornton developed and validated the cost drivers that determine the magnitude and sequencing of cost impacts over the period of analysis.

Each of these steps is further described below.

#### 4.1.1 Review and Validate the Applicability of Selected Business Process

Within our analysis, Grant Thornton worked with AOC and trial court staff to identify and quantify key business processes within the trial court administrative environment. The following describes the business processes that have been included within our analysis:

- **Case initiation.** Case Initiation is the start of the case management process and describes the activities associated with entering a new case filing into the case management system environment. The basis of our analysis of this process comes from a review of 2009/10 actual case filing data from the AOC annual statistical report. Estimates of time required to perform case initiation activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **Fee and penalty payment processing.** Fee and penalty payment processing describes the activities associated with assessing and processing fees and penalties for case related issues. The basis of our analysis of this process comes from a review of actual criminal and civil filing payment data provided by AOC. Estimates of time required to perform payment activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **Calendaring.** Calendaring describes the activities associated with scheduling case proceedings, which requires court staff to expend extensive time manually coordinating the schedules of various stakeholders within the judiciary. The basis of our analysis of this process comes from a review of 2009/10 actual case filing data from the AOC annual statistical report. Estimates of time required to perform calendaring activities are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
- **Appeals preparation.** Appeals preparation describes the activities associated with preparing a disposed case for the appeals process. The basis of our analysis of this process comes from our review of 2009/10 actual appeals data from the 2011 AOC annual statistical report. During interviews with trial court staff, we asked them to estimate the average amount of time required to prepare cases for appeal. This information became the basis for our analysis.
- **Background checks.** Background checks describe the activities associated with completing background checks of individuals for justice partners and commercial vendors. The basis of our analysis of this process comes from our review and analysis of survey questions related to conducting background checks. Survey recipients were asked to provide the number of background checks that they perform and also the estimated amount of time required to complete such tasks. Based upon the responses that we received from a subsection of the courts we developed a proportional estimate for selected courts.
- **Administrative inquiries.** Administrative inquiries describe the activities associated with filling requests for the copy and review of court related documents. The basis of our analysis of this process comes from our review and analysis of survey questions related to copying and review costs. Survey recipients were asked to estimate their annual costs for filling requests and document review requests. Based upon the responses that we received from a subsection of the courts staff, we developed a proportional estimate for selected courts.



### 4.1.2 Analysis of Deployment Schedule

Our recommended deployment schedule was used to estimate when program cost benefits are likely to be realized and to calculate the proportion of case filings that would be impacted by the V4 system throughout the deployment lifecycle. The recommended ten Phase 2 courts, plus the San Luis Obispo early adopter court collectively account for 27.4% of all annual court case filings.

Of this 27.4%, each Phase within the CCMS V4 deployment will migrate a certain percentage of the case volume into the CCMS V4 environment. The cumulative percentage of the total impacted case filings to be migrated to CCMS V4 at each Phase is shown below.

<b>CCMS V4 Deployment Rollout Schedule:</b>		
<b>Phase</b>	<b>Period:</b>	<b>% of Impacted Case Filings</b>
Phase 1:	FY 2013/14	2.62%
Phase 2.1:	FY 2014/15	21.95%
Phase 2.2	FY 2015/16	89.92%
Phase 2.2(a)	FY 2016/17	100.00%

**Table 4-1: Cumulative percentage of total impacted case filings**

### 4.1.3 Validate Program Cost Driver Assumptions

Grant Thornton established program cost drivers to estimate the impact of CCMS V4 on legacy program activities. The program cost drivers determine the magnitude of the program impact. The following presents the program cost drivers that we included within our analysis, along with the related assumptions:

- **CCMS Program Costs - Caseload Initiation - Benefit Accrual Calculation:** Caseload initiation benefits were calculated in the following manner:
  - Based upon discussions with court staff, Grant Thornton developed percentage estimates to reflect the proportion of case filings that are currently performed in a paper-based manner. We then developed percentage estimates to reflect the proportions of case filings that would be performed in a paper-based manner within the V4 environment. V4 percentage estimates are based on interviews with several court staff members, who described their V3 experiences, their anticipated V4 experiences, and their experiences in implementing other case management systems.
  - To estimate the baseline number of paper-based filings Grant Thornton multiplied the total caseload filings of the selected courts by their respective paper-based percentages, then projected these annual estimates for the duration of the analysis period.
  - To estimate the benefits of the V4 system on case initiation filings, Grant Thornton multiplied the total caseload filings of the selected courts by their projected V4 paper-based percentages, then projected these annual estimates for the duration of the analysis period. Based on interviews with courts about their recent case management implementation

experiences, Grant Thornton assumed that benefits for each deployment phase begin to accrue 12 months after the end of the phase.

- For baseline case filings and V4-impacted case filings, Grant Thornton estimated workload costs by estimating the labor costs, per minute, for manually processing paper-based case filings. Labor costs (per minute) are based upon salary and benefit information received from the AOC.
  - Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by the AOC.
  - Marginal storage costs were estimated based upon storage cost information acquired from court staff during site visits and interviews.
- **CCMS Program Costs - Fee and Penalty Payment Processing:** Fee payment data is based upon projections of actuals from Paid Civil First Fee and Criminal Convictions Data. Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by the AOC.
  - **CCMS Program Costs – Calendaring:** 2009/10 actual case filings were taken from the AOC's 2011 Court Statistics Report. Times for workload effort are based on preliminary data from the 2010 Staff Workload Study provided by AOC.
  - **CCMS Program Costs - Appeals Preparation:** Appeals data is based upon the AOC's 2011 Court Statistics Report. Estimates of work effort (in minutes) are based upon interviews with trial court staff.
  - **CCMS Program Costs - Background Checks:** The number of projected background checks is based upon the proportional projection from survey responses on background checks conducted during our original CBA and were validated during interviews with selected courts during court site visits and conference calls. The estimate of work effort (in minutes) is based upon court interviews.
  - **CCMS Program Costs- Administrative Inquiries:** The number of projected administrative inquiries is based upon a proportional projection from survey responses on administrative activities. The estimate of work effort (in minutes) is based upon court interviews.

## 4.2 Program Cost Analysis

Within this subsection, we present our analysis of the program cost projections for the following scenarios:

- **Baseline Program Cost Projections:** Baseline program cost projections reflect our estimate of the program costs that will accrue within the current case management environment at the early adopter and Phase 2 courts over a ten-year period.
- **CCMS V4 Program Cost Projections:** CCMS V4 program cost projections reflect our estimate of program costs that will accrue within the CCMS V4 environment at the early adopter and Phase 2 courts over a ten-year period.

Upon calculating these two projections, we compared the projections to determine if the cost reductions associated with the CCCMS V4 system result in a net reduction of program costs. A net benefit will result if it is determined that the cost projections associated with the CCMS V4 environment result in a net reduction of

program costs, while a net cost will result if it is determined that the cost projections result in a net increase of program costs.

The following tables present the findings of our analysis.

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	Totals
Case Initiation	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$26,246,757	\$262,467,570
Fee/Penalty Payment	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$146,124,230
Calendarling	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$227,005,150
Appeals Preparation	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$918,300
Background Checks	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$211,850
Administrative Inquiries	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$41,467,550
<b>Total Program Costs</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$684,614,750</b>
Case Filing Storage Costs	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$19,902,340

Figure 4-2: Baseline Program Cost Projections

	2011/12	2012/13	Phase 1 2013/14	Phase 2.1 2014/15	Phase 2.2 2015/16	Phase 2.2 2016/17	2017/18	2018/19	2019/20	2020/21	Totals
Case Initiation	\$26,535,757	\$26,535,757	\$26,991,999	\$26,992,999	\$26,992,999	\$26,992,999	\$27,340,999	\$27,340,999	\$27,340,999	\$27,340,999	\$269,992,999
Fee/Penalty Payment	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$14,612,423	\$146,124,230
Calendarling	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$22,700,515	\$227,005,150
Appeals Preparation	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$91,830	\$918,300
Background Checks	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$21,185	\$211,850
Administrative Inquiries	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$4,146,755	\$41,467,550
<b>Total Program Costs</b>	<b>\$68,461,475</b>	<b>\$68,461,475</b>	<b>\$68,942,646</b>	<b>\$68,942,646</b>	<b>\$68,942,646</b>	<b>\$68,942,646</b>	<b>\$69,409,277</b>	<b>\$69,409,277</b>	<b>\$69,409,277</b>	<b>\$69,409,277</b>	<b>\$694,092,277</b>
Case Filing Storage Costs	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$1,990,234	\$19,902,340

Figure 4-3: CCMS V4 Program Cost Projections

Based on the above analysis, Grant Thornton estimates that deployment of CCMS V4 to the Phase 2 courts and to San Luis Obispo will result in a net decrease in program costs through FY20/21 of \$216,983,279. This benefit must be balanced with the cost of deploying and maintaining CCMS V4 versus maintaining the status quo case management system environment. Figure 4-4 illustrates the net impacts of the CCMS V4 system on program costs.

<b>Business Process</b>	<b>Total Baseline Projection</b>	<b>Total Phase 2 CCMS V4 Projection</b>	<b>Net Reduction/Benefit</b>
Case Initiation	\$265,457,667.40	\$259,398,314	\$6,059,353
Fee/Penalty Payment	\$148,154,231.69	\$81,108,438	\$67,045,794
Calendaring	\$227,205,155.21	\$116,172,129	\$111,033,026
Appeals Preparation	\$9,918,203.04	\$5,374,204	\$4,543,999
Background Checks	\$2,311,847.92	\$1,252,681	\$1,059,167
Administrative Inquiries	\$41,487,652.29	\$18,658,701	\$22,828,951
Case Filing Storage Costs	\$16,902,340.43	\$12,489,353	\$4,412,987
<b>Total Program Costs</b>	<b>\$711,437,097.97</b>	<b>\$494,453,819</b>	<b>\$216,983,279</b>

Net Benefit

Figure 4-4: Net impact of CCMS V4 deployment to 11 courts on program costs

### 4.3 Qualitative Benefits

Within this subsection, we discuss the qualitative benefits that may result from the deployment of CCMS V4 to the selected courts. In the previous subsections we have discussed quantifiable benefits that may result from the system. However, there are other benefits that may result, both to the impacted trial courts and the branch as a whole, which may not be quantifiable but may be important for the mission of the Judicial Branch. The following are some of the key qualitative benefits that may result from the deployment of CCMS V4:

- **Promoting equal access to justice.** The implementation of CCMS should help to level the playing field and promote equal access to justice. CCMS was designed to allow the viewing and exchange of trial court case information and associated documentation across local jurisdictional boundaries and the exchange of information at the court-to-county, court-to-state partner, state-to-state, and state-to-federal levels. The statewide data reporting warehouse will enable information to be reported in a consistent manner, allowing for analysis of court performance not currently possible and making the judiciary more accountable to the public.
- **24x7 information access.** Within the current environment, access to paper-based case files is limited to business hours. With the CCMS system, stakeholders will have virtual access to documents whenever they are needed.
- **Visibility across case types.** Within the current case management environment, the limitations of many case management systems make it difficult for judicial staff to access records across case types. Within the CCMS environment, judicial staff will be able to access all impacted offender records across case types, giving judicial officers a comprehensive view of offender activities.

- **More timely information to field officers.** Technological limitations can make it difficult for justice partners and their field staff to maintain up-to-date judicial information on offenders. Within the CCMS business environment, justice partners will be able to access up-to-date court information on offenders, empowering justice partners and their field staff to address justice needs more effectively.
- **Implementation of electronic notifications.** Implementing CCMS would enable courts to send standard notices to frequent court users electronically. This will reduce costs and improve the timeliness of notifications.
- **Earlier receipt of payment for traffic cases.** In the current environment, traffic cases may often not be paid promptly by offenders, because delays in the processing and entry of such cases make them unavailable to be processed. CCMS will enable courts to promptly enter traffic citations, so that they can be paid more promptly by traffic offenders.
- **Reduced redundant data entry and improved data quality.** Because many of the State's justice systems are not integrated, data must often be entered and re-entered across various justice systems, providing opportunities for delays and errors. Within the CCMS business environment, data can be maintained and transmitted electronically, thereby reducing the need for redundant data entry and improving data quality.
- **Prompt recording of minute orders.** CCMS will enable minute orders to be recorded directly in the court room and produced immediately. Producing minute orders immediately will improve compliance with judicial orders, by providing clear instructions immediately and enabling the recipient to review the minute order to identify errors or obtain clarifications where necessary.
- **The unification of family court cases.** In the current environment, cases involving the same family member can be heard in different courts that may not know that the family is involved in multiple cases. This can lead to numerous problems, including conflicting orders. By linking individuals to family units and linking one family unit to another, CCMS will support the ability of the courts to relate family cases and family members.
- **Allowing judges to manage caseloads more efficiently.** By providing a common application across all case types and jurisdictions, CCMS will enable assigned judges to be much more efficient in the preparation of assigned cases.
- **Less clean-up of court data required by DOJ.** Within their document *California's Court Case Management System Data Integration Benefits: To Courts and Partners*, the AOC indicates that, in 2009, DOJ had 65 staff members dedicated to the clean-up of court criminal history records. It is likely that a substantial level of this workload will be reduced with the implementation of CCMS. During discussions with DOJ staff, DOJ indicated that it had not completely assessed the degree of benefit that the Department would yield from data integration with CCMS, and that such assessment was only in the initial stages. While CCMS integration with DOJ will likely result in some level of cost reduction for DOJ, since DOJ was unable to accurately estimate either the costs or benefits of this integration at this time these benefits were not included when estimating CCMS ROI.

- **More efficient intake of offenders by CDCR.** When inmates are transitioned from county to state institutions, they are transferred along with extensive paper-based court documentation, including:
  - Minute orders
  - Abstracts of Judgment
  - Sentencing Transcripts
  - Charging Document
  - PO Report
  - Arrest Reports

As inmates arrive at institutions with their court documentation, institution administrative staff must manually enter portions of the documentation into the CDCR Offender Based Information System (OBIS). CDCR is currently deploying a Strategic Offender Management System (SOMS), which will significantly integrate and improve offender management activities across the department's 33 institutions. As SOMS is rolled out to the institutions, CDCR will be able to establish integration links that will allow institutions to send and receive inmate information electronically. As CCMS V4 is rolled out across the judiciary, the AOC will be able to establish integration links with the CDCR to electronically transmit data that is currently entered manually, thereby eliminating this manual data entry. This integration will likely result in quantifiable savings in CDCR staff time as CCMS and SOMS are deployed, but since CDCR was unable to accurately estimate either the costs or benefits of this integration at this time these benefits were not included when estimating CCMS ROI.

## 5. Cost Benefit Analysis

Based upon our analysis of the current and projected costs and benefits of the 11 court CCMS deployment effort, this section presents an analysis of two deployment scenarios. Subsection 5.1 presents the baseline scenario, which reflects the current state IT costs and business environment. Subsection 5.2 presents the 11 court deployment scenario, which reflects the costs related to the deployment of the CCMS V4 system to the early adopter and recommended Phase 2 courts. Finally, subsection 5.3 presents a summary comparison of the scenarios.

### 5.1 Baseline Scenario Costs

The baseline scenario assumes that the Judicial Branch does not move ahead with a CCMS V4 deployment (including no early adopter deployment). Instead, each court continues to operate and maintain their current CMS', and then independently replaces their CMS' at some point between FY 12/13 and FY20/21. The V2 and V3 systems may continue to operate through FY20/21. Within this scenario there are three sets of costs:

- **One-time CMS replacement costs** to replace current CMS' with more modern equivalents once the current systems reach the end of their useful life;
- **Continuing M&O costs** for the current CMS' at each court; and
- **Continuing program costs** for the court business processes that will continue to operate in a status-quo environment.

The continuing program costs for the baseline scenario were described in subsection 4.2 above. The following sections detail the one-time CMS replacement and continuing M&O costs for the baseline scenario.

#### 5.1.1 Baseline One-time IT Costs

This subsection presents the estimated costs of upgrading or replacing current court CMS' in the event that the CCMS project is cancelled. We have assumed that all 11 courts will require a new CMS prior to FY20/21, but we have also assumed a minimalist replacement strategy –courts are assumed to replace their systems with the minimum functionality to support their current business practices. No significant business process reengineering, additional automation, or DMS implementation is assumed.

The most detailed recent analysis of the estimated costs to individually replace the CMS' in the 58 trail courts was published in January, 2010 by The Amicus Group, inc. on behalf of the California Trial Court Consortium. The analysis developed an estimate of likely implementation for costs to implement a new CMS



at each California trial court based on data from 85 comparable CMS projects conducted between 2000 and 2011. Appendix 4 of this analysis presented a court-by-court deployment cost estimate, including estimates for software costs, hardware costs, implementation services, and data conversion. We used the estimates in Appendix 4 of the document for each of the 11 courts as the basis for the CMS replacement costs in this analysis.

Since the Amicus Group study did not include an explicit estimate of court staff costs, we also added court staff cost estimates to our projection of total CMS replacement costs. Court staff costs were estimated to be 35% of the implementation services costs, based on an assumption of a 1:1 ratio of court staff to vendor staff, and an assumed hourly cost for court staff of 35% of the hourly rate for contract staff.

Table 5-1 presents our estimated one-time individual CMS replacement costs for the 11 courts.

Court	Staff	Implementation Services	Hardware	Software	Conversion	CA-specific requirements	Total
San Luis Obispo	\$331,800	\$948,000	\$171,302	\$711,000	\$0	\$1,000,000	\$3,162,102
Fresno	\$1,556,800	\$4,448,000	\$317,670	\$2,502,000	\$390,000	\$1,000,000	\$10,214,470
Mendocino	\$174,300	\$498,000	\$171,302	\$373,500	\$112,000	\$1,000,000	\$2,329,102
San Joaquin	\$966,000	\$2,760,000	\$317,670	\$1,552,500	\$390,000	\$1,000,000	\$6,986,170
San Diego	\$6,324,500	\$18,070,000	\$1,431,005	\$8,131,500	\$520,000	\$1,000,000	\$35,477,005
Inyo	\$33,600	\$96,000	\$146,830	\$108,000	\$93,000	\$1,000,000	\$1,477,430
Orange	\$6,881,000	\$19,660,000	\$1,431,005	\$8,847,000	\$520,000	\$1,000,000	\$38,339,005
Santa Cruz	\$331,800	\$948,000	\$171,302	\$711,000	\$112,000	\$1,000,000	\$3,274,102
Alameda	\$3,209,500	\$9,170,000	\$1,431,005	\$4,126,500	\$520,000	\$1,000,000	\$19,457,005
Ventura	\$1,148,000	\$3,280,000	\$317,670	\$1,845,000	\$390,000	\$1,000,000	\$7,980,670
Marin	\$371,700	\$1,062,000	\$171,302	\$796,500	\$112,000	\$1,000,000	\$3,513,502
<b>Total</b>	<b>\$21,329,000</b>	<b>\$60,940,000</b>	<b>\$6,078,063</b>	<b>\$29,704,500</b>	<b>\$3,159,000</b>	<b>\$11,000,000</b>	<b>\$132,210,563</b>

Table 5-1: Grant Thornton estimated one-time individual CMS replacement costs

### 5.1.2 Baseline Continuing IT Costs

Current court CMS continuing IT costs are based on our data collection and interviews with courts to understand their current IT expenditures. In addition to courts' other systems, current continuing IT costs include the cost of maintaining any currently operational instances of V2 and V3. Phoenix, the AOC financial management and accounting system, has been used to capture costs associated with the court CMS' at the trial courts. Not all courts use the same account codes in Phoenix, nor do they capture all the costs in the same fashion. Existing IT costs from Phoenix were provided to Grant Thornton. Grant Thornton followed up through both in-person and telephonic interviews with key personnel at the trial courts to confirm consistency in the classification of costs and to validate that cost data collection was complete. In the cases

where Phoenix information was not available for a specific court, existing IT costs were gathered from our previous CCMS Cost Benefit Analysis. The following tables represent the estimated court CMS continuing IT costs FY2011/12 – FY2020/21.

	FY 2011/12		FY 2012/13		FY 2013/14		FY 2014/15		FY 2015/16	
	FY%	Amount	FY%	Amount	FY%	Amount	FY%	Amount	FY%	Amount
<b>Continuing IT Budget Costs</b>										
Staff (Salaries & Benefits)	90.4	\$2,577,090	91.0	\$2,572,881	91.0	\$2,606,356	86.2	\$2,690,261	86.2	\$2,690,157
Hardware Lease/Maintenance	0.0	\$352,424	0.0	\$215,558	0.0	\$204,891	0.0	\$151,800	0.0	\$364,619
Software Maintenance/Leases	0.0	\$908,708	0.0	\$988,225	0.0	\$1,030,873	0.0	\$1,029,041	0.0	\$1,012,463
Equipment/Supplies	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>										
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IT&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,441,010	0.0	\$1,432,377	0.0	\$1,431,179	0.0	\$1,425,375	0.0	\$1,426,053
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$1,441,010</b>	<b>0.0</b>	<b>\$1,432,377</b>	<b>0.0</b>	<b>\$1,431,179</b>	<b>0.0</b>	<b>\$1,425,375</b>	<b>0.0</b>	<b>\$1,426,053</b>
<b>Core Court Services</b>	0.0	\$2,574,236	0.0	\$2,642,282	0.0	\$2,738,660	0.0	\$2,842,103	0.0	\$2,952,334
<b>Agency Fee Fee</b>	0.0	\$172,577	0.0	\$172,638	0.0	\$172,697	0.0	\$172,484	0.0	\$172,539
<b>Other</b>	0.0	\$25,158,646	0.0	\$19,489,248	0.0	\$16,740,278	0.0	\$17,866,448	0.0	\$18,916,022
<b>Total Continuing IT Costs</b>	<b>90.4</b>	<b>\$33,274,604</b>	<b>91.0</b>	<b>\$32,513,207</b>	<b>91.0</b>	<b>\$34,874,963</b>	<b>86.2</b>	<b>\$36,177,516</b>	<b>86.2</b>	<b>\$37,364,406</b>

	FY 2017/18		FY 2018/19		FY 2019/20		FY 2020/21		TOTAL	
	FY%	Amount	FY%	Amount	FY%	Amount	FY%	Amount	FY%	Amount
<b>Continuing IT Budget Costs</b>										
Staff (Salaries & Benefits)	86.0	\$2,730,564	86.0	\$2,773,711	86.2	\$2,814,011	83.0	\$2,837,089	87.1	\$10,984,144
Hardware Lease/Maintenance	0.0	\$193,844	0.0	\$151,440	0.0	\$351,031	0.0	\$177,360	0.0	\$673,675
Software Maintenance/Leases	0.0	\$1,076,506	0.0	\$1,095,338	0.0	\$1,115,117	0.0	\$1,135,438	0.0	\$4,022,399
Equipment/Supplies	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
<b>Contract Services</b>									0.0	\$0
Software Customization	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Management	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Project Oversight	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
IT&V Services	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0	0.0	\$0
Other Contract Services*	0.0	\$1,425,300	0.0	\$1,424,500	0.0	\$1,424,873	0.0	\$1,427,971	0.0	\$14,283,648
<b>TOTAL Contract Services</b>	<b>0.0</b>	<b>\$1,425,300</b>	<b>0.0</b>	<b>\$1,424,500</b>	<b>0.0</b>	<b>\$1,424,873</b>	<b>0.0</b>	<b>\$1,427,971</b>	<b>0.0</b>	<b>\$14,283,648</b>
<b>Core Court Services</b>	0.0	\$3,195,732	0.0	\$3,330,508	0.0	\$3,474,637	0.0	\$3,628,772	0.0	\$13,429,649
<b>Agency Fee Fee</b>	0.0	\$172,658	0.0	\$172,722	0.0	\$172,789	0.0	\$172,859	0.0	\$691,028
<b>Other</b>	0.0	\$20,354,065	0.0	\$21,440,719	0.0	\$21,895,915	0.0	\$22,501,632	0.0	\$86,192,410
<b>Total Continuing IT Costs</b>	<b>86.0</b>	<b>\$28,146,610</b>	<b>86.0</b>	<b>\$30,399,938</b>	<b>86.2</b>	<b>\$31,249,373</b>	<b>83.0</b>	<b>\$31,661,120</b>	<b>87.2</b>	<b>\$289,979,060</b>

Table 5-2: Estimated court CMS continuing IT costs: FY11/12- FY20/21

One of the most significant elements of the continuing IT cost estimate is the supplemental funding provided by the AOC to certain courts to maintain their CCMS V2 and CCMS V3 systems. Based on figures provided by the AOC, Grant Thornton estimates that, over the analysis period, AOC supplemental funding will total approximately \$190M. This figure is included within the ‘Other’ line item in Table 5-2.

Supplemental funding costs vary annually from approximately \$21M to \$26M. This variance is mainly driven by costs for the refresh and maintenance cycles for V2 and V3 hardware and application enhancements. The projected supplemental funding for V2 and V3 courts is as follows.

System	FY11/12	FY12/13	FY13/14	FY14/15	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	FY20/21	Total
V2	5,682,103	6,347,124	6,413,081	6,464,067	6,758,277	6,837,863	6,873,223	6,954,191	6,990,211	7,072,582	66,392,722
V3	19,182,793	12,851,382	10,036,429	11,110,018	11,867,904	12,111,581	13,190,393	14,195,085	14,614,716	15,137,742	134,298,043

**Table 5-3: Projected supplemental funding for V2 and V3 courts**

## 5.2 Early Adopter and Phase 2 CCMS V4 Deployment Scenario Costs

Subsection 3.2 above described our approach to estimating the one-time and continuing CCMS V4 deployment costs for the Phase 2 courts. Adding these costs together provides a total estimate of CCMS V4 IT deployment costs for the early adopter and Phase 2 courts. The following tables present these costs.





### 5.3 Budget Required to Support CCMS Phase 2 Deployment

Of the total estimated 11 court deployment scenario IT cost of \$70,204,815, a significant percentage is money that would be also be spent under the Baseline scenario to maintain current court CMS', including CCMS V2 and V3. New funding would be required to fund the deployment and operation of the CCMS V4 solution at each of the 11 courts.

Table 5-5 presents an estimate of the total new funding required to support the deployment of CCMS V4 to San Luis Obispo and to the Phase 2 courts each fiscal year. This estimate includes all one-time CCMS V4 deployment costs and all new continuing costs to support the statewide CCMS infrastructure and program. This estimate 80% of existing court CMS budget funds would be redirected to support CCMS after CCMS V4 was deployed at each court, and that 100% of court staff time would be reimbursed by the AOC. To the extent that courts did not require 100% reimbursement by the AOC, then the required funding would be less. We estimate that a total of \$342,575,022 in additional funding would be required to support CCMS V4 deployment at the early adopter court and at the ten Phase 2 courts.

Fiscal Year	CCMS V4 Funding
FY12/13	\$35,576,469
FY13/14	\$84,042,697
FY14/15	\$118,532,827
FY15/16	\$82,545,927
FY16/17	\$15,771,825
FY17/18	\$3,028,613
FY18/19	\$1,787,120
FY19/20	\$955,482
FY20/21	\$334,061
<b>Total</b>	<b>\$342,575,022</b>

**Table 5-5 Estimate of total new funding to support CCMS V4 deployment**

### 5.3 Comparison of Scenarios

To compare the Baseline and 11 court CCMS V4 deployment scenarios, three numbers must be compared:

- One-time IT costs (the cost to deploy new systems at each of the 11 courts);
- Continuing IT costs (the costs to maintain current systems until replaced and then to maintain new systems) and;
- Continuing program costs (the costs to carry out the most significant case management-related business processes at each court before and after the new systems are implemented).

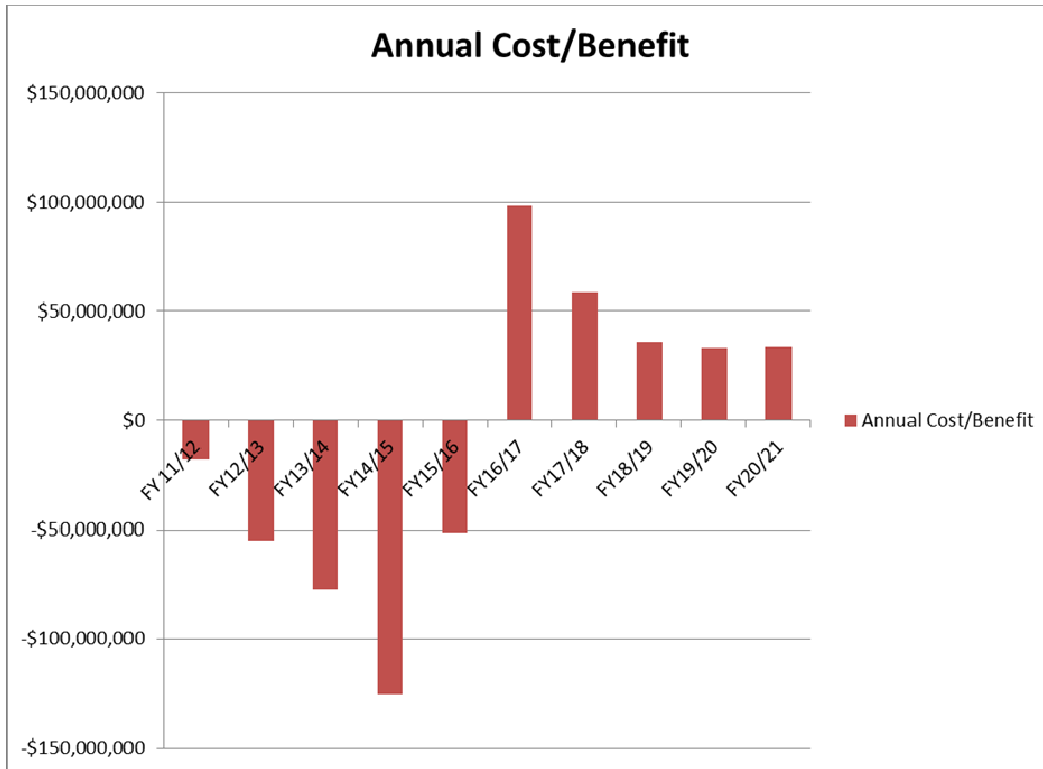
By adding estimates of these three numbers through FY 20/21 together, a total estimated cost for each scenario can be calculated. Table 5-6 below presents to totals for each category and compares the total cost of the Baseline and 11 court CCMS V4 deployment scenarios through FY20/21.

Category	Baseline	CCMS V4 Deployment to 11 Courts	Difference (CCMS V4 minus Baseline)
One-time IT	\$132,210,563	\$231,118,328	\$98,907,765
Continuing IT	\$289,979,060	\$475,086,487	\$185,107,426
Continuing program	\$711,437,098	\$494,453,819	-\$216,983,279
<b>Total</b>	<b>\$1,133,626,721</b>	<b>\$1,200,658,635</b>	<b>\$67,031,913</b>

**Table 5-6: Comparison of Baseline and 11 court CCMS V4 deployment scenarios**

Based on our analysis, we estimate that the CCMS V4 deployment to San Luis Obispo and to the recommended Phase 2 courts will result in a net negative Return on Investment (ROI) to the branch of approximately -\$67 Million through FY20/21. Note that no new revenue sources were assumed when estimating the potential benefits to the Branch of deploying CCMS V4.

When the above data is reviewed on a fiscal year-by-fiscal year basis, the 11 court CCMS V4 deployment is estimated to provide an ongoing net positive ROI of approximately \$33m in each year from FY17/18 onwards. This is illustrated in the Figure 5-1 below.



**Figure 5-1: Eleven court CCMS V4 deployment annual cost/benefit by fiscal year**

Note that the significant annual benefit amounts in FY16/17 and FY17/18 are due to the estimated timing of the replacement of the individual CMS' at the 11 courts in the Baseline (no CCMS) scenario. Many of these costs are estimated to accrue in FY16/17 and FY17/18, so increasing the benefit of the CCMS scenario in those years.

Based on above estimates, the 11 court CCMS deployment will break even (i.e., total cumulative ROI greater than zero) in FY22/23.



## 6. Summary of Analysis and Recommendations

The following presents Grant Thornton's summary of analysis and recommendations for the CCMS V4 Deployment:

- Grant Thornton has recommended a ten court Phase 2 CCMS V4 deployment strategy that balances economic return, diversity of courts, and support for courts with a critical need for a new case management system. We have recommended a deployment in two sub-phases that would deploy after the completion of the early adopter deployment at San Luis Obispo and that would complete in mid-FY16/17.
- Based on our analysis of the AOC 'Jan 5th' budget estimate for the early adopter court deployment, we believe that the actual cost to deploy CCMS to San Luis Obispo has been overestimated, and we developed revised estimates of \$56,440,305 to complete the deployment in February 2014, and \$81,596,310 to both complete the deployment and fund M&O through the end of FY 13/14.
- Grant Thornton estimated the total one-time and continuing costs of the early adopter plus ten Phase 2 court deployment scenario through FY20/21. That cost was estimated at \$1,200,658,635 (including the costs of relevant court business processes).
- Grant Thornton also estimated the total one-time and continuing cost of not deploying CCMS and of having the 11 courts continue to operate their current CMS' and then independently replace them over time. In this scenario we assumed current court business process costs would remain unchanged. We estimated this cost through FY 20/21 at \$1,133,626,721.
- This result implies that the deployment of CCMS V4 to these 11 courts on this schedule would result in a negative ROI to the Branch of approximately \$67m through FY20/21, although from FY17/18 onwards the deployment would net an annual benefit to the Branch of approximately \$33m, and the 11 court deployment would break even in ROI terms in FY 22/23.

To create a CCMS V4 deployment strategy that has an earlier positive return on investment, the Branch has several options:

- **Add additional courts, or replace the smaller courts in the deployment plan with large or medium-sized courts.** In general, larger courts provide a more positive ROI when deploying CCMS than smaller courts. No additional large courts were interested in participating in early CCMS V4 deployment discussions, but given the large start-up costs for a system that is designed as a statewide solution, the ROI for CCMS becomes progressively better the larger the percentage of state case volume that is processed through the system.

- **Work with county and local justice partners to increase the percentage of case filings submitted electronically.** One of the main drivers of program cost savings for CCMS is the receipt of case filing electronically and the removal of paper handling costs. Many justice partners are currently unable or unwilling to commit to the investment necessary to integrate with CCMS V4. Early integration of additional justice partners would increase the total percentage of cases received electronically and could significant increase CCMS ROI.
- **Accelerate the deployment of the Phase 2.1 and Phase 2.2 courts.** Grant Thornton developed a deployment sequence that was consistent with the general timeframes previously considered for a CCMS court deployment, but we only assumed a maximum of 5 courts in a concurrent deployment. By increasing the courts that are concurrently deployed within a deployment phase, the Branch could deploy the Phase 2 courts a year or more earlier and thereby increase the number of post-go-live years when a positive annual ROI would contribute to an overall positive ROI for the project. However, the AOC is already challenged to scale up quickly enough to field a team to deploy 5 courts concurrently. Scaling up more quickly than this might not be feasible.

Should the Judicial Branch elect to proceed with the deployment of CCMS V4, Grant Thornton makes the following recommendations related to the planning and execution of the deployment:

1. **Restructure CCMS governance.** Should the CCMS V4 deployment move ahead, we recommend that the structure, roles and membership of the CCMS governance bodies be reviewed, and if necessary changed to reflect the chosen deployment strategy. In particular, if the recommended Grant Thornton deployment strategy were followed, then the Phase 2 courts should immediately have a clear and influential role in both the planning for deployment activities and in the development and enhancement path for future CCMS releases. Several courts have already identified specific functionality that they believe is required in CCMS in the future, and as the early users of CCMS these courts should have a significant voice in project decision-making.
2. **Investigate level of effort to configure CCMS for extra-small courts.** Given the unique needs of extra-small courts (in particular the very general nature of their staffing model where a single staff member must process many different types of cases and transactions), the Branch should examine what changes to the standard CCMS configuration will be required to enable CCMS to work effectively for these very small courts and should determine the level of investment required to make a 'small court' version of CCMS.
3. **Rationalize the budgeting and financial management of the CCMS program.** We recommend that the AOC revisit the structure and processes for budgeting and financial management for CCMS. The current budgeting structure (by AOC organizational unit) is difficult to understand and does not match the approach or format used by other state entities. Implementing a common budgeting and financial management process (ideally one consistent with California Technology Agency policy and guidance) would make communication with other State entities much easier.

## Appendix A: Economic Analysis Worksheets (EAW's)

The Economic Analysis Worksheets used to develop this document are included by reference as a series of attached MS-Excel files.

