State of California
Department of Finance

Budget Information System
Feasibility Study Report (FSR)

July 14, 2005
Final

(Minor Revisions)

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1.0 Project Approval Transmittal

BIS Steering Committee FSR Approval/Concurrence:

Signature on file

Steve Kessler
Chief Deputy Director, Budgets
BIS Project Sponsor

Signature on file

Mark Hill
Program Budget Manager
Business, Transportation and Housing

Signature on file

Randy Baker
Program Budget Manager
Budget Systems Development

Signature on file

Fred Klass
Program Budget Manager
Resources and Capital Outlay

Signature on file

Sue Bost
Program Budget Manager
Health and Human Services

Signature on file

Jeannie Oropeza
Program Budget Manger
Education

Signature on file

Veronica Chung-Ng
Program Budget Manager
Budget Operations Support

Signature on file

James Tilton
Program Budget Manager
Corrections/General Government

Signature on file

Tom Dithridge
Program Budget Manager
Administration

NOTE: Members of the BIS Steering Committee who are required to sign-off on the Executive Approval Transmittal are not included in the sign-off above.

The Executive Approval Transmittal is on the following page.

Information Technology Project Request

Feasibility Study Report
Executive Approval Transmittal

Department Name
Department of Finance
Project Title (maximum of 75 characters)
Budget Information System

Project Acronym	Department Priority	Agency Priority
BIS	**1**	

APPROVAL SIGNATURES

I am submitting the attached Feasibility Study Report (FSR) in support of our request for the Department of Finance's approval to undertake this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1 and that the proposed project is consistent with our information technology strategy as expressed in our current Agency Information Management Strategy (AIMS).

I have reviewed and agree with the information in the attached Feasibility Study Report.

Chief Information Officer		**Date Signed**
Signature on file		
Printed name:	Mike Auman	
Budget Officer		**Date Signed**
Signature on file		
Printed name:	Cindy Roberts	
Department Director		**Date Signed**
Signature on file		
Printed name:	Tom Campbell	
Agency Secretary		**Date Signed**
Printed name:	N/A	

2.0 IT Project Summary Package

INFORMATION TECHNOLOGY PROJECT SUMMARY PACKAGE
SECTION A: EXECUTIVE SUMMARY

1.	Submittal Date	

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

			Estimated Project Dates	
3.	Project Title	Budget Information System	Start	End
	Project Acronym	BIS	July 2005	August 2012

4.	Submitting Department	Department of Finance
5.	Reporting Agency	Department of Finance

6. Project Objectives

- Reduce entry of the same expenditures, revenues, and personnel years (PYs) data in multiple files and multiple formats.
- Reduce the number of hardcopy handoffs.
- Reduce the number of special purpose spreadsheet drills.
- Reduce Finance budget staff data entry activities related to capturing one-time costs, full-year adjustments, employee compensation adjustments, and budget change requests.
- Shift initial data entry of budget change requests to state agencies and departments.
- Reduce the need for technical corrections to the proposed and enacted budgets.
- Reduce the number of stand-alone systems supporting Finance's budget development and administration processes.
- Improve issue and historic budget development analysis capabilities by preserving historical information in the proposed system.
- Reduce redundant descriptive and analytical writing for decision documents, reports, and publications.
- Improve ability of enacted budget to guide development of departmental operating budgets by preserving more information and improving controls.
- Improve quality of operating budgets and related management controls to avoid over expenditures and erratic spending patterns.
- Improve ability to use current year and past year accounting information in budget

8. Major Milestones	Est Complete Date
Chart of Accounts and Standards	June 2006
Procurement	March 2008
Project Initiation, Planning and Design	June 2008
Testing and User Acceptance	June 2009
Release and Deploy Solution – Finance and selected departments	August 2009
Release and Deploy Solution – Statewide	July 2011
PIER	**July 2012**
Key Deliverables	
■ Chart of Accounts and Standards	June 2006
■ Procurement	March 2008
■ Business process analysis ■ Change management program development ■ RFP requirements validation and gap analysis	June 2008

development. ■ Improve ability to project budgets for multiple years and scenarios. ■ Enhance ability to incorporate new information into the budget process in the future, such as performance information. ■ Improve understandability of the budget to the public, Legislature and department management (especially those responsible for specific program expenditures).	

■ Site preparation and configuration ■ Solution build, configuration, customization ■ Data conversion planning and execution ■ Interface development	June 2009
■ Unit, integration, system and performance testing ■ User acceptance testing ■ Change management program	June 2009
■ Training – technical, administrator and user ■ Production deployed to Finance	August 2009
■ Training – technical, administrator and user ■ Production deployed to departments and agencies in a staggered process	July 2011
■ PIER Report	July 2012

7.	**Proposed Solution**
	Implement a commercial off the shelf (COTS) Budget Information System (BIS) to meet Finance's budget development and administration/management needs and when fully operational the budget development and administration needs of departments and agencies. The BIS solution must operate in the context of the state's direction for an enterprise-wide solution.

Project #	**N/A**
Doc. Type	**FSR**

Executive Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Agency Secretary								
Dept. Director	Tom	Campbell	916	445-4141				
Budget Officer	Cindy	Roberts	916	445-3274	3026	916	327-0220	Cindy.Roberts@dof.ca.gov
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Project Sponsor	Steve	Kessler	916	445-4923				Steve.Kessler@dof.ca.gov

Direct Contacts								
	First Name	**Last Name**	**Area Code**	**Phone #**	**Ext.**	**Area Code**	**Fax #**	**E-mail**
Doc. prepared by	Randy	Baker	916	445-1777	3320	916	324-4888	Randy.Baker@dof.ca.gov
Primary contact	Randy	Baker	916	445-1777	3320	916	324-4888	Randy.Baker@dof.ca.gov
Project Manager	To be determined							

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

1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	4/2005
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	8/2003
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	DOF Strategic Plan	6/30/1997
		Page #	19

Project #	N/A
Doc. Type	FSR

		Yes	No
4.	Is the project reportable to control agencies?	X	
	If YES, CHECK all that apply:		
X	a) The project involves a budget action.		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
	c) The project involves the acquisition of microcomputer commodities and the agency does not have an approved Workgroup Computing Policy.		
X	d) The estimated total development and acquisition cost exceeds the Departmental cost threshold.		
	e) The project meets a condition previously imposed by Finance.		

Project #	N/A
Doc. Type	FSR

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

FY 2005-06	FY 2006-07	FY 2007-08	FY 2008-09	FY 2009-10	FY 2010-11	FY 2011-12
$1,749,000	$2,179,000	$32,160,228	$24,823,774	$25,789,486	$22,995,194	$15,222,325

PROJECT COSTS

1.	Fiscal Year	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12	TOTAL
2.	One-Time Cost	3,266,534	3,826,242	33,464,763	23,116,224	21,567,503	17,377,411	0	$ 102,618,677
3.	Continuing Costs	0	10,000	19,167	3,350,752	6,930,185	8,475,085	16,513,465	$ 35,298,654
4.	TOTAL PROJECT BUDGET	$3,266,534	$3,836,242	$33,483,930	$26,466,976	$28,497,688	$25,852,496	$16,513,465	$ 137,917,331

SOURCES OF FUNDING[1]

5.	General Fund	1,749,000	2,179,000	16,964,520	13,094,541	13,603,954	12,129,965	8,029,776	$ 67,750,756
6.	Redirection	1,517,534	1,657,242	1,323,702	1,643,202	2,708,202	2,857,302	1,291,140	$ 12,998,324
7.	Reimbursements								$
8.	Federal Funds			10,783,324	8,323,411	8,647,215	7,710,289	5,104,046	$ 40,568,285
9.	Special Funds			4,412,383	3,405,822	3,538,317	3,154,941	2,088,503	$ 16,599,966
10.	Grant Funds								$
11.	Other Funds								$
12.	PROJECT BUDGET	$3,266,534	$3,836,242	$33,483,930	$26,466,976	$28,497,688	$25,852,496	$16,513,465	$ 137,917,331

PROJECT FINANCIAL BENEFITS

13.	Cost Savings/Avoidances	$ 0	$ 0	$ 0		$ 0	$ 0	$ 0	$ 0
14.	Revenue Increase	$ 0	$ 0	$ 0		$ 0	$ 0	$ 0	$ 0

Note: The totals in Item 4 and Item 12 must have the same cost estimate.

[1] The funding source for the first two years will be the General Fund, covering the period of chart of accounts and procurement activities. Thereafter, the funding distribution is an estimate based on the proportion of the respective funds to the total budget. Various funding options are being explored to ensure that costs are appropriately distributed to all departments and various non-General Fund sources. Financing alternatives to select the most appropriate approach will also be evaluated. The SPR will detail the funding approach for the project.

Project #	N/A
Doc. Type	FSR

Vendor Cost for FSR Development (if applicable)	$65,265
Vendor Name	Visionary Integration Professionals, Inc.

VENDOR PROJECT BUDGET

1.	Fiscal Year	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-12	TOTAL
2.	Primary Vendor Budget	0	0	3,875,250	15,466,500	13,862,250	10,854,000	4,932,000	$48,999,000
3.	Independent Oversight Budget	0	200,000	428,113	1,023,650	959,413	773,855	0	$3,385,030
4.	IV&V Budget	0	0	178,380	1,023,650	959,413	773,855	0	$2,935,298
5.	Other Budget	1,347,000	1,409,140	7,017,400	360,000	360,000	360,000	0	$10,853,540
6.	TOTAL VENDOR BUDGET	$1,347,000	$1,609,140	$11,499,143	$17,873,800	$16,141,075	$12,761,710	$4,932,000	$66,163,868

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

PRIMARY VENDOR HISTORY SPECIFIC TO THIS PROJECT

7.	Primary Vendor	
8.	Contract Start Date	
9.	Contract End Date (projected)	
10.	Amount	$

PRIMARY VENDOR CONTACTS

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

Project #	**N/A**
Doc. Type	**FSR**

RISK ASSESSMENT

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

General Comment(s)
The risk management plan is contained in Section 7 of this document.

3.0 BUSINESS CASE

3.1 Business Program Background

The Department of Finance (Finance) is in the Executive Branch and part of the Governor's Administration. Finance is one of eight "Control Agencies". The Director of Finance is appointed by the Governor and is his/her chief fiscal policy advisor. Principal functions are to:

- Establish appropriate fiscal policies to carry out the State's programs.
- Prepare, enact, and administer the State's annual financial plan (budget), which the Governor is required under the California Constitution to present by January 10 of each year.
- Analyze legislation which has a fiscal impact.
- Develop and maintain the California State Accounting and Reporting System (CalSTARS).
- Monitor/audit expenditures by state departments to ensure compliance with law, approved standards, and policies.
- Develop economic forecasts and revenue estimates.
- Develop population and enrollment estimates and projections.
- Review expenditures for information technology activities of the departments.

Finance interacts with other state departments on a daily basis in terms of preparing, enacting, and administering the budget; reviewing fiscal proposals; analyzing legislation; establishing accounting systems; auditing department expenditures; and communicating the Governor's fiscal policy.

Finance's mission is to:

- Serve as the Governor's chief fiscal policy advisor.
- Promote responsible resource allocation through the state's annual financial plan.
- Ensure the financial integrity of the state.

3.1.1 Information Systems Overview

Finance's current data computing environment is made up of multiple mainframe (legacy) systems as well as client/server and web-based systems. Its mainframe budget systems were developed individually to support different parts of the state's budget process. Finance's mainframe budget applications run on the Triplex processor (MVS) at the Teale Data Center. These applications are written using the Natural programming language using an IBM DB2 relational database.

At the time the systems were developed, the decision support needs of the department were not as complex or time sensitive as they are today. Because of this, Finance has been using various work-around decision applications, such as Excel, Word, and Access, to track, record, and report

on the decision process, as the current systems are unable to provide this functionality. The proliferation of these stand-alone work-around systems and spreadsheets has resulted in a number of significant challenges including:

- Data redundancy—the types of data managed across many of the systems is similar in nature, with the same data often keyed in to multiple systems.
- Widespread lack of integration—since these systems are not integrated, data must be re-keyed in each of the applications. This creates a highly redundant processing environment that makes reporting extremely difficult and increases the potential for errors resulting from data input.
- Reliance on spreadsheets/Access database for important budget data—numerous spreadsheets have been used to compensate for functionality not present in the existing mainframe systems. While Excel is an effective productivity tool, it is not intended to serve as a data store for important business data. In addition, Excel has limitations in the amount of data that can be stored in each cell and formatting constraints, which significantly reduces the amount of useful information that can be presented to support the decision process. The reliance on Excel based processes and the lack of data integration exposes Finance to data integrity risks and limits its ability to conduct reliable statistical analyses, analytical reporting, and trend analyses. In addition, a small Access database was developed specifically for decision tracking as an attempt to reduce reliance on cumbersomely large spreadsheets. However, this application does not address all of the current data needs and similar to Excel has formatting limitations. Therefore, both spreadsheets and Access continue to be used throughout the budget process. These tools do not meet current data needs and are therefore less useful for decision support than desirable.

3.1.2 Impacted Programs

Finance consists of the following organizational units:

Budget Units – Finance's budget units work with state departments and agencies to develop and implement the annual state financial plan (budget). Each unit serves a particular program area, such as:

- Business, Transportation and Housing
- Capital Outlay
- Corrections, Criminal Justice, Consumer Services and General Government
- Education (Higher Education and K-12 Education)
- Employee Compensation and State Pension Systems
- Health and Human Services
- Local Government
- Resources and Environment

Budget Units are responsible for developing analyses and recommendations regarding budgetary proposals, presenting and defending the Governor's Budget before legislative committees; analyzing legislation for fiscal impacts, and recommending official Administration positions to the Governor's Office; developing models and analyzing data; representing the Administration before the Legislature and other public or private entities; and reviewing proposed budget revisions and other technical adjustments to the budget.

Administration – provides administrative support for the department, including business services (e.g., facilities, contracts, procurement), human resources, training, and also includes the following units:

- **Information Services** – develops and maintains Finance's computing infrastructure. Staff design, code, test, implement, and maintain applications used by Finance units. This unit also installs and maintains computer workstations; develops and maintains Finance's Internet and Intranet web-servers; and provides technical assistance (Help Desk) and training. Information Services also provides report designs and presentation packages for the department, through the Information Design Unit,
- **Office of State Audits and Evaluations** (OSAE) – performs a variety of professional services including financial and performance audits, program evaluations, and risk and control consultation. These activities serve to improve the efficiency and performance of state agencies, and help assess the need for changes in program structures or resources. OSAE conducts its operations in accordance with applicable audit standards.
- **Performance Review Unit** – conducts reviews of state and local programs (e.g., efficiency, program, organizational and policy reviews) to determine if alternative operations could result in better services to the public, or lower costs to the state.

Budget Operations Support – Budget Operations Support (BOS) is comprised of four units, Financial Operations (FO), Investable Resources (IR), CalSTARS and Fiscal Systems and Consulting Unit (FSCU). The following is a brief description of each unit's primary responsibilities.

- **Financial Operations (FO)** – is responsible for the coordination and quality control activities of the budget preparation, enactment, and administration processes. It coordinates the preparation of various publications such as the Governor's Budget, Salary and Wages Supplement, Finance Letters Package, May Revision Highlights, Veto Package, Final Change Book, and Final Budget Summary. FO administers the Budget Preparation System, the Personnel Years System, the Revenue System, the Change Book System, and the Fund Condition System. All these systems assist in the development and enactment of the budget. The unit also performs the following functions: processes and tracks various budget related documents that amend the Budget Act, coordinates the statewide deficiency process, prepares General Fund Updates throughout the year, and develops legislative bill and initiative analysis for statewide issues. The unit researches issues such as budget reforms, budgeting practice in other states, and accounting and budgeting relationships. FO assists roughly 200 state departments and Finance staff to

resolve the most difficult technical budget problems. FO also provides technical budget training, instructions, and consultation to departments and to analysts within Finance.

- **Investable Resources (IR)** – is responsible for the State Controller's Office, State Treasurer's Office, and all the financing authorities under the State Treasurer's Office (except one) budgets. In addition, IR is responsible for the budgeting aspects related to cash management, the State Appropriations Limit, and Proposition 58. The unit also performs the following functions: prepares General Fund Updates throughout the year, administers the Budget Decision Support (BUDDS) System used during the fall decision process, administers the Policy Decision Support (PDS) System, staff to the Pooled Money Investment Board, coordinates Conference Committee note taking activities, coordinates the official state disclosure information for all bond issuances and to rating agencies, coordinates and/or prepares various statewide drills and surveys, and maintains the historical statewide budget information.
- **Fiscal Systems and Consulting Unit (FSCU)** – maintains the state's uniform codes, funds manual, and accounting and financial reporting sections of the State Administrative Manual (SAM); administers the federal Cash Management Improvement Act; develops the state assessments for recovery of costs of central administrative services and the cost allocation plan apportionments for federally-funded programs; prepares budget items; and provides fiscal consultation and training to state departments on general fiscal issues and federal grant and contract accounting requirements.
- **CalSTARS Unit** – administers the state's automated accounting system: California State Accounting and Reporting System (CalSTARS). The unit works with state agencies to implement and use CalSTARS to improve the timeliness and accuracy of the state's financial information and to expand agencies' accounting and reporting capabilities.

Financial, Economic and Demographic Research – provides revenue estimates for the annual state budget process, analyzes financial legislation, and evaluates financial developments potentially significant to the state. Staff prepare comprehensive economic forecasts, develop and maintain California data and forecasting models, prepare analyses of various economic developments; and advise state departments and local government agencies. The Demographic Research Unit is the official source for demographic and enrollment data for the State of California – this unit analyzes demographic data and trends regarding such topics as population size and composition, immigration to the state, and future population and school enrollment growth and distribution.

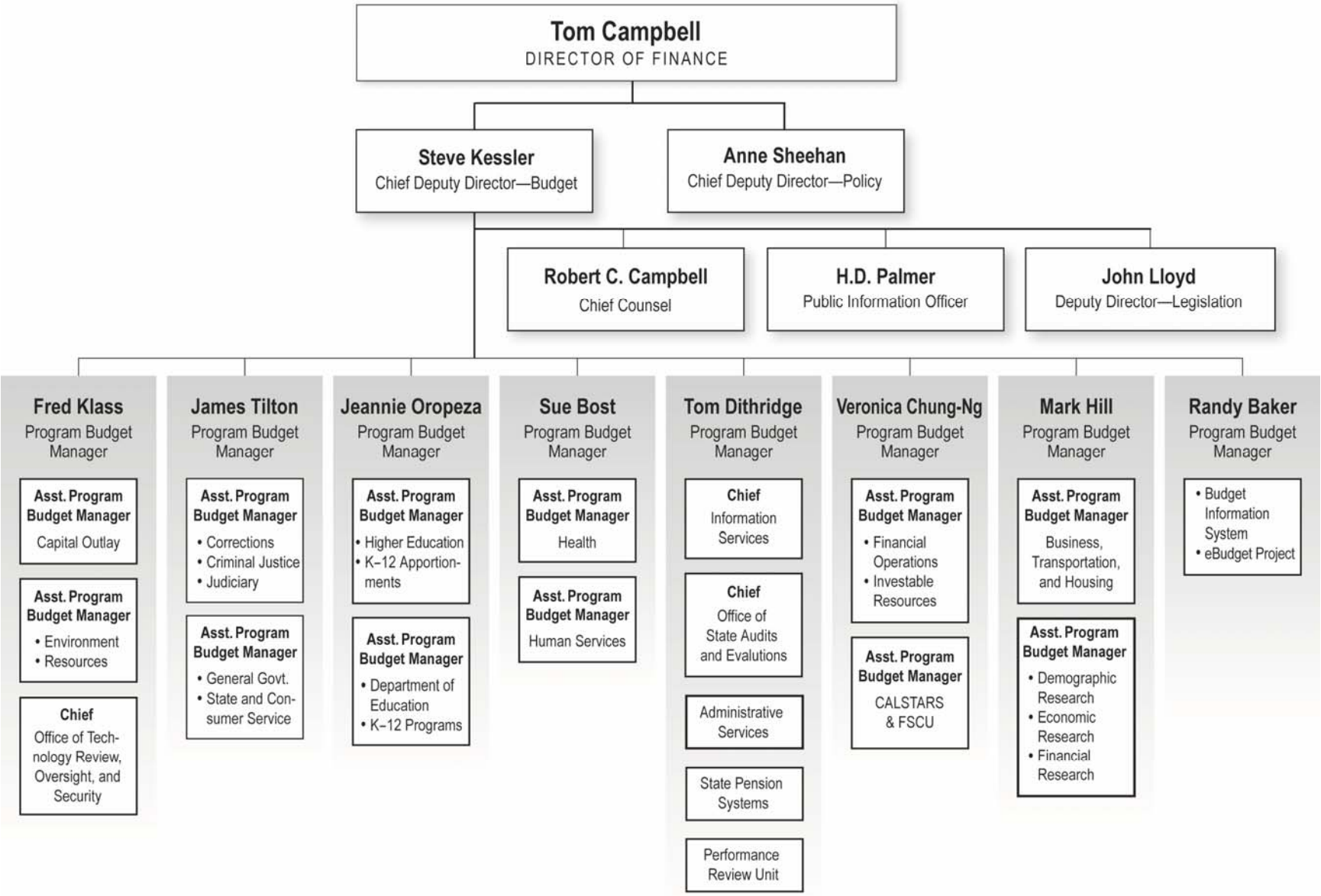
Office of Technology Review, Oversight and Security (OTROS) – under the Resources, Environment and Capitol Outlay Budget Unit, is responsible for approving and overseeing IT projects and ensuring the security of state IT resources. OTROS reviews agencies' proposed IT projects to ensure they are aligned with statewide IT policies and strategies and represent a sound business value and prudent investment of state resources. In addition, OTROS monitors high criticality projects and performs assessments of agencies' IT project oversight and project management activities, and directs the statewide IT security program, developing and disseminating policies and guidelines on security and operational recovery.

Budget Systems Development Unit – The Budget Systems Development Unit (BSDU) was established in 2001 to explore the re-engineering of Finance's existing budget processes to improve the quality, efficiency, and timeliness of information used for making decisions that have a fiscal policy impact on California. This unit was also established to reduce the Finance's vulnerability to a failure of the existing 30-year old mainframe-based budget applications. Following the completion of the re-engineering study BSDU was to begin the task of developing a proposal that would be used to replace the current budget applications used to develop and track the state budget process with a single, modern, year round budget application.

While the development of a new budget system has been the primary focus of BSDU for several years, the unit assumed the lead responsibility for implementing a process to present the Governor's Budget in a public-friendly, web-based technology format (eBudget) through the newly developed Governor's Budget Presentation System (GBPS). The unit has been the focal point for coordinating the development effort within the department and with an outside consulting firm that had significant experience with high volume web sites.

In addition to work on the replacement budget system and the web-based presentation system, BSDU developed a department-wide database system using Microsoft Access/SQL Server to track and present policy decisions to executive management at Finance and the Governor's Office.

An organizational chart showing the Finance's Divisions and offices is on the next page.


Tom Campbell
DIRECTOR OF FINANCE
Steve Kessler
Chief Deputy Director—Budget
Anne Sheehan
Chief Deputy Director—Policy
Robert C. Campbell
Chief Counsel
H.D. Palmer
Public Information Officer
John Lloyd
Deputy Director—Legislation
Fred Klass
Program Budget Manager
Asst. Program Budget Manager
Capital Outlay
Asst. Program Budget Manager
• Environment
• Resources
Chief
Office of Technology Review, Oversight, and Security
James Tilton
Program Budget Manager
Asst. Program Budget Manager
• Corrections
• Criminal Justice
• Judiciary
Asst. Program Budget Manager
• General Govt.
• State and Consumer Service
Jeannie Oropeza
Program Budget Manager
Asst. Program Budget Manager
• Higher Education
• K–12 Apportionments
Asst. Program Budget Manager
• Department of Education
• K–12 Programs
Sue Bost
Program Budget Manager
Asst. Program Budget Manager
Health
Asst. Program Budget Manager
Human Services
Tom Dithridge
Program Budget Manager
Chief
Information Services
Chief
Office of State Audits and Evalutions
Administrative Services
State Pension Systems
Performance Review Unit
Veronica Chung-Ng
Program Budget Manager
Asst. Program Budget Manager
• Financial Operations
• Investable Resources
Asst. Program Budget Manager
CALSTARS & FSCU
Mark Hill
Program Budget Manager
Asst. Program Budget Manager
Business, Transportation, and Housing
Asst. Program Budget Manager
• Demographic Research
• Economic Research
• Financial Research
Randy Baker
Program Budget Manager
• Budget Information System
• eBudget Project

3.2 Business Problem/Opportunity

> *"The state lacks enterprise-wide budget and financial systems that are necessary to produce the information managers' need to plan and manage. Existing technologies are dated and fragmentary."* [2]

A significant part of the Finance's mission is to prepare, enact, and administer the state's annual financial plan (budget), which the Governor is required under the California Constitution to present by January 10 of each year. As recognized by the California Performance Review (CPR) to achieve this mission more effectively, Finance needs improved automation to consolidate, analyze and prepare the state's annual budget.

The state's existing budget related systems are inadequate and limit Finance's ability to efficiently manage and report on budget issues. Due to the limitations of legacy budget systems, staff resort to performing analysis using multiple spreadsheets and an Access database application, creating a situation where critical information is decentralized and difficult to consolidate. There are often some delays in producing requested information due to the difficulty in gathering and organizing the necessary data. Spreadsheets, MS Word documents, handwritten notes, and other paper-based documents contain vast amounts of critical information used in budget analysis and administration (i.e., the ability to compare budget to actuals). However, these are not fully integrated and there is no single system that currently exists where budget data can be effectively collected and managed for budget development and administration.

Finance's primary budget systems (see Section 4.1.1) were originally deployed in the mid 1970's; these systems are not flexible and do not meet the needs of the state's current budget development and administrative processes. They were developed individually to support different parts of the state's budget process with little consideration for overall integration across applications.

The following problem areas have been identified.

1. **"WORK-AROUNDS" CREATE MORE WORK AND IMPACT PRODUCTIVITY.** Key business functions involved in the budgeting process are complex, and are highly manual and paper-intensive. The dependence on manual, labor-intensive processes and outdated technologies creates great risk to Finance. At certain times of the year a system failure or even an unplanned absence by a critical employee can cause great disruption to the process.

- **Ineffective use of Analysts' Time and Capacity**: It now takes Finance considerable time to prepare and validate data used in various budget reports and budget systems. This also reduces employee efficiency and productivity, forcing Finance staff to spend disproportionate time on repetitive and mundane tasks that could be automated with

[2] California Performance Review, 2004

currently available technology. The level of effort that must be directed toward data entry and reconciliation during the budget development process limits the time available for review and analysis of critical budget issues.

- ✓ Similar data is captured in multiple applications; however, the data is structured differently in each application and recorded at different levels of detail (i.e., appropriation, program, issue, etc.). This results in an inability to easily report or track individual budget issues and statewide fiscal status across the annual budget process. It also requires duplicate data entry efforts – creating significant workload and increasing the opportunities for data errors. It is estimated that this resulted, in fiscal year 2001-02, approximately 22.5 Finance staff spending 14,000 hours in related data entry and reporting activities, for a cost of $425,000.
- ✓ The inability to easily combine fiscal data and narrative information requires the use of Excel, Word, and Access to develop reports to support the decision process. Related data are manually entered into briefing documents from other sources. Briefing documents may include fiscal data, narrative write-ups, charts, graphs, etc., as requested. The re-keying of information into briefing documents not only increases the chance for data entry errors, but it also has a significant impact on workload. It is estimated that approximately 42 Finance staff expended 42,000 hours for a cost of $1.3 million during 2001-02 in related activities.
- ✓ Due to the lack of integration between the mainframe systems and the desktop tools, data must be manually transferred between the mainframe systems and the PC tools to support staff analysis and the decision process. In addition, because of differences in the data structures, this data must also be manipulated and reviewed before any detailed analysis is begun. This required approximately 16,000 staff hours for a cost of approximately $500,000 in 2001-02.
- ✓ Not all of the information requested by decision makers is available in the legacy systems or on electronic files. Because the information is not easily accessible, a significant amount of research time is required in order to provide the requested information for decision making purposes. It is estimated that related research activities resulted in approximately 40 Finance staff expending close to 27,000 hours for a cost of $800,000 in 2001-02.
- ✓ It can also be very difficult and time consuming to locate past documentation that is critical for a current analysis or decision, as the current systems do not retain this type of data.

  Additionally, the current structure of the legacy systems does not support the retention of prior fiscal year information. All legacy systems retain only one budget cycle (current year revised and budget year) of fiscal data, except for Budget Preparation System (BPS). Often Finance needs to compare previous years' information to support decisions, trend analysis, and requests for general background information relating to past budgets. Prior to the implementation of eBudget Finance staff relied solely on hardcopy reports such as the Governor's Budget and on printouts of previously developed electronic files from other

systems, such as Excel, to obtain this information and prepare the necessary reports. As a result of the implementation of eBudget, the most current Budget is now available at a high level of detail electronically for staff reference.

- ✓ Finance acts as the official recorder throughout the legislative hearing process, including the Conference Committee. As a result staff spend a considerable amount of time obtaining detail from departments; verifying and validating legislative actions; and ensuring that issues are properly recorded. It is estimated that in 2001-02, approximately 1,400 hours of Finance staff time was spent in related activities for a cost of approximately $42,000.

- **Overtime –** the re-keying of information across the multiple systems and the need for multiple reconciliation efforts and signoffs results not only in a perception that the systems and processes are inefficient but contribute towards high overtime usage, increased training requirements and the continual development of work-around processes. On average, over the 2000-01 and 2001-02, overtime costs for Finance were $631,000 per year.

- **Increased training costs due to turnover** – Budget analysts manage critical information using a combination of manual processes and non-integrated technologies. While Finance provides extensive training on the budget process, frequently there is no formal documentation or training associated with the work-around solutions. Individuals involved in the budget process require significant training to support budget preparation and administration. The annual per person cost for training is $2,115 for new analysts, $548 for experienced Finance staff and $845 for Finance principals. Based on this data, Finance had an estimated cost of $103,131 for training during 2001-02.

2. COMPROMISED ACCURACY.

Given the lack of needed functionality in the legacy budget systems, budget development and administration processes are heavily manual and Finance staff tend to manage budget related information in independent spreadsheets and documents. The lack of integrated data in a single system substantially increases the risk of data inaccuracy.

- **The lack of integration makes it difficult and time consuming to consolidate information into a statewide perspective.** Data must be converted, reformatted, and manually updated across multiple systems and spreadsheets to support the budget administration and development processes. Even a small miscommunication can result in significant discrepancies and detailed reconciliation efforts.

  - ✓ As a direct result of the lack of integration, detailed information needed for robust analysis is generally scattered across the organization and difficult to gather. Thus, there is more time and energy spent on gathering information and less on analysis. This may compromise the level of review of various funding options related to individual budget issues. It is estimated that in 2001-02, approximately 46,000 hours of Finance staff time was spent in related activities for a cost of approximately $1.4 million.

  - ✓ The majority of detailed budget information comes from departments and is provided via hardcopy or in spreadsheets (submitted electronically), requiring key

entry or upload into the GBPS by Finance staff, with a few exceptions (Capital Outlay Project Tracking System, CalSTARS data, certain reports from State Controller's Office). It is estimated that in 2001-02, approximately 11,000 hours of Finance staff time was spent in key entry and data upload activities for a cost of approximately $330,000.

- ✓ The re-keying of information into spreadsheets can lead to keying errors; therefore, Finance has developed various reconciliation processes to ensure the integrity of the data.
- ✓ Spreadsheets don't always capture the decision justification or who made the decision. This information may be handwritten on the notes but not captured electronically. As a result, the history of specific issues may be lost.

- **Labor intensive manual review processes**. Decisions are captured in the work-around applications and then the final supporting detail is recorded in the legacy systems. This leads to multiple entries of data and excess reconciliation within a short period of time. These efforts include review and comparison of original data, comping or calculating data to ensure accuracy. In addition, a significant amount of staff time is necessary to copy and distribute various budget documents and publications which is a largely manual process.
  - ✓ Spreadsheets do not provide auditing capabilities. The lack of auditing capabilities increases staff reconciliation efforts. Also, critical pieces of decision justification are never captured for future use.
  - ✓ As a result of the multiple systems and differing data structures, Finance has developed many manual reconciliation processes between applications, hardcopies, and spreadsheets. These reconciliation processes include the comparison of system and hard copy data and the comping of hardcopy data before and/or after data entry to ensure the accuracy and integrity of budget data. It is estimated that in 2001-02, approximately 18,000 hours of Finance staff time was spent on reconciliation activities for a cost of approximately $515,000
  - ✓ Finance prepares various reports and publications that require an extensive use of narrative formatting, tabular presentations, and graphs and charts to summarize fiscal information. While the format of this information is similar across annual publications and from year-to-year, these reports and publications are developed by re-keying data from the legacy systems and Word documents into numerous spreadsheets and narrative documents to generate multiple publications. If a change in the fiscal data is required, the change must be made in the legacy systems, the ancillary systems, and appropriate reports and publications. Additional staff time is then necessary to copy and distribute these reports and publications. It is estimated that in 2001-02, approximately 3,200 hours of Finance staff time was spent in related activities for a cost of approximately $95,000

- ✓ Multiple logs, the majority being manual, are used to track the location and status of hardcopy documents being routed for confirmation of data, validation of receipt of documents, reconciliation efforts, and reviews. It is estimated that in 2001-02, approximately 625 hours of Finance staff time was spent in key entry and data upload activities for a cost of approximately $19,000

3. AGING TECHNOLOGY PLATFORM

Finance's existing systems rely on older technologies that are difficult to maintain. Due to their age and the number of changes that have been made over the years, many of the applications are poorly structured and difficult to operate and maintain. Furthermore, while it is not possible to accurately predict the potential for failure of these legacy systems, it can be reasonably assumed that sooner or later it will occur.

- ✓ Aging technology and a limited ability to maintain systems in danger of experiencing a failure could result in a failure to produce the Governor's budget as required by the Constitution. Lack of needed functionality and flexibility and dependence on 30 year old technology makes modifying and enhancing these systems difficult, if not impossible – most of the systems were developed to address separate budget processes, without the benefit of an overall architecture.
- ✓ Difficulties in recruiting and retaining personnel who have the technical knowledge to maintain and operate Finance's budget systems and contracting for support of outdated technologies represent a high risk for Finance. Finance (and likely the state as a whole) has only a few personnel with the technical skills and system knowledge necessary to maintain its mainframe budget systems. Universities and colleges no longer provide training in the operating environment and programming languages of Finance's budget systems. Many people who were once proficient with these legacy systems have been retrained in new technologies resulting in diminishing ability to program in the older technologies. The cost of these skills continues to rise and may soon be simply unavailable – key technologies of Finance's budget systems have passed their useful life because the systems no longer meet data needs and it is becoming more difficult (and costly) to acquire vendors knowledgeable in these technologies.
- ✓ Limited staff resources are stretched to support and maintain ten different budget applications that use at least five different programming platforms running against numerous databases.

The above items reflect gross hours spent on specific activities identified in the As-Is report completed by Finance in June 2002 to evaluate existing budget development processes. Because of the overlapping nature of many budget activities the estimated hours associated with these business problems may be counted in more than one area. The unduplicated hours for individual activities included in the categories above is approximately 71,000 hours which is equivalent to approximately 39 personnel years or full-time equivalent positions.

3.2.1 State Agency/Departments

The cumulative effect of these problems is even more significant when the impact of Finance's budget systems on state agencies is considered. State agencies partner with Finance during the budget development process by providing Finance with budget estimates, historical spending data, and analytical reports. Agency data is a significant input into the Governor's Budget.

While state agencies have internal business processes to develop and manage departmental budgets, they also use Finance's system data (hardcopy forms and system reports) to prepare their budgets. Therefore, the inefficiencies and inaccuracies inherent in Finance's automated budget systems and associated business processes impact state agencies in the same way that they impact Finance. Specifically, the loss of productivity and compromised accuracy detailed previously in Problems #1 and #2 impact state agencies in the same way that they impact Finance. The negative impact of these systems is magnified on a statewide basis. Examples of impacts from a state agency perspective include:

- ***Inefficient use of resources:*** Departments expend a significant amount of effort manually transferring information between their internal budget development systems and the forms and schedules used by Finance to develop the budget. The process for developing iterative versions of the galley and supporting schedules is time consuming and labor intensive, which diverts resources from other departmental functions, such as budget management/monitoring.
- ***Inaccurate Data:*** Data entry errors often occur when departments transfer data from their internal systems to the schedules and forms used by Finance. Identifying and correcting errors is a difficult and time consuming process. Some errors may not be detected for weeks or months after the passage of the budget, impacting the departments' ability to manage their programs within the approved budget.
- ***Redundant Data:*** Redundant data exists in the systems used by the departments and Finance to develop and manage budgets. Departments must expend resources reconciling this data to ensure that it is accurate and consistent with Finance's records. Departments must also reconcile their records with the State Controllers Office (SCO).
- ***Difficulty Meeting Deadlines:*** Last minute changes as a result of budget decisions from both the Administration and Legislature – which require modification to the galley, various schedules and worksheets, or detail to complete change book entries – are time consuming to process and error prone.
- ***Lack of Technical Resources:*** Many departments, especially smaller ones, do not possess the technical resources required to effectively develop and maintain their *internal* budget development systems. For example, several small and medium sized departments reported the use of multiple internal spreadsheets for developing and tracking budget data. The departments reported a need for more sophisticated tools, but lacked the technical resources to develop them. Other larger departments have more sophisticated – but older – systems which are no longer supported by their vendors or which have reached their capacity for modifications. These internal issues compound the resource, process, and technical impacts caused by the lack of integration with Finance's systems.

- ***Inefficient Budget Control:*** Departments manually input appropriations into their internal budget and accounting systems after legislative appropriations have been made. Due to the lack of an integrated statewide system where Finance or another controlling entity enters appropriations, there is no automated mechanism preventing users from entering expenditures beyond their allocations. Departments must expend significant resources to prevent this from occurring, or to correct over-expenditures when they do occur.
- ***Cumbersome Reporting:*** Departments must often respond to Finance requests for program and budget data during "budget drills" (such as caseload information, program expenditures, and trend data). In many cases, departments do not have the required information, or it is in a form that does not allow departments to easily re-format the data to respond to the information request. When departments are unable to provide the information (at all or in a timely manner), Finance's inquiries may not be addressed, often resulting in a denial of the departmental requests or reductions to existing resources.

In addition to the items noted by departments above, there are instances when decision-level detail is not transmitted to departments (except in verbal form) and the detail is not entered into departmental budget control systems. Thus, some portions of the budget may not be implemented as intended. More detailed budget systems to track specific decisions are often "ad-hoc", if they exist at all.

As highlighted in the CPR: *"In the area of financial management of the state's resources, CPR finds the state particularly deficient. Our systems are old and outmoded…Our budget practices also should be improved. The systems used to manage the budget are, again, out of date. More importantly, though, our state's budget is based on an old style of line-item budgeting that virtually guarantees poor budget decision making, since the Governor and the Legislature do not have all of the information they need to make the best judgments about how to spend the state's resources.*

Budget crises tend to focus the harsh light of reality on how well government does its job. The harsh reality in this area is that we need to do better, much better. This may be one of the most important areas of improvement in this study since it goes to the heart of the public's trust in our stewardship of government and our use of their hard-earned tax dollars."

3.3 Business Objectives

> *"Replace outmoded fiscal and budgeting systems and build better systems. This requires an investment, but our separate financial systems must be tied together to allow accurate, comprehensive and timely statewide financial information and reporting."* [3]

The project proposed in this FSR is designed to resolve the business issues discussed in the previous section and integrate the entry, analysis, retrieval and reporting of information related to the state's budget development and administration processes. While BIS has an overall project goal to achieve the following general improvements these items are not considered to be measurable project objectives. In addition to these goals, measurable objectives to address work-arounds, compromised accuracy, and aging technology are detailed on the following pages:

- Improve issue and historic budget development analysis capabilities by preserving historical information in the proposed system.
- Reduce redundant descriptive and analytical writing for decision documents, reports, and publications.
- Improve ability of enacted budget to guide development of departmental operating budgets by preserving more information and improving controls.
- Improve quality of operating budgets and related management controls to avoid over expenditures and erratic spending patterns.
- Improve ability to use current year and past year accounting information in budget development.
- Improve ability to project budgets for multiple years and scenarios.
- Enhance ability to incorporate new information into the budget process in the future, such as performance information.
- Improve understandability of the budget to the public, Legislature and department management (especially those responsible for specific program expenditures).

However, to ensure the success of this effort and to achieve many of the outcomes identified, this project must first establish common rules that can be used for both budgeting and accounting activities. Therefore, a common chart of accounts will be established by a cross-section of budget, accounting, and business stakeholders to develop a foundation or system architecture that can be later expanded and utilized for accounting functions.

The objectives identified on the following pages outline the measurable objectives Finance intends to achieve as a result of the project described in this FSR. Meeting these objectives will allow Finance to redirect resources currently spent on manual and cumbersome activities to more

[3] California Performance Review, 2004

value-added analysis and budget administration activities. While no quantifiable data is available regarding efficiencies that will be achieved for state agencies, it is anticipated that department budget staff will also achieve similar efficiencies. This will allow departments to improve the quality of operating budgets and internal management controls to minimize over expenditures of limited state resources in the future.

"Work-Arounds" Create More Work and Impacts Productivity

- Reduce entry of the same expenditures, revenues, and personnel years (PYs) data in multiple files and multiple formats by 25%. Currently it is estimated that 14,000 hours of Finance staff time is spent in data entry and reporting activities, for a cost of $425,000. Additionally, it is estimated that approximately 18,000 hours of Finance staff time was spent on reconciliation activities due to the duplicate data entry efforts, for a cost of approximately $515,000
- Reduce the number of hardcopy handoffs (i.e., Schedule 10s, Budget Galley) by 50-75%. During the development of the 2004-05 Governor's Budget, it is estimated that Financial Operations maintained thirty (30) separate logs that tracked handoffs of various budget documents throughout the budget process. It is estimated that each Budget Unit also maintains approximately five (5) logs each to track various items throughout the budget process for a total of about thirty (30) additional logs maintained throughout Finance. As a result of the eBudget implementation in 2004-05 (to produce the 2005-06 Governor's Budget), a reduction in document handoffs was achieved. With the implementation of BIS it is anticipated that these handoffs will be further reduced to fully realize the 50-75% reduction.
- Reduce the number of special purpose spreadsheet drills by 50% since the majority of data necessary to respond to these drills will be available as part of the core functionality of BIS. During the 2003-04 budget development cycle (from development through enactment), there were 175 special purpose drills. Additionally, a number of these drills were completed multiple times with different data requirements.
- Reduce Finance budget staff data entry activities related to capturing one-time costs, full-year adjustments, employee compensation adjustments, and budget change requests by 70%. This reduction will be realized by shifting initial data entry of budget change requests to state agencies and departments, and implementing system-generated adjustments for one-time costs, full-year costs, employee compensation, etc. Approximately 4,300 planning estimate adjustments occurred in the 2003-04 budget for the line items identified above, excluding budget change requests. On average during 2002-03 and 2003-04 finance staff entered data for 2,400 budget change requests.
- Reduce the amount of overtime expended by Finance staff in support of budget development and administration activities, by 25%. (On average, over the fiscal years 2000-01 and 2001-02, overtime costs for Finance were $631,000 per year)

Compromised Accuracy

- While the number of errors and omissions to prior budgets has not been specifically tracked and would be difficult to quantify, implementation of a single system is likely to reduce the need for technical corrections to the proposed and enacted budgets by 15 %.
- Eliminate inconsistent data entry formats for the same data elements (*i.e.*, whole dollars vs. rounded dollars, $151,650 vs. $152k).
- Reduce training costs associated with training Finance analysts by 15%.
- Eliminate the need for manual comping of various budget documents such as the galley by budget unit analysts and the Central Unit. As a result of the eBudget implementation in 2004-05, a reduction in manually comping was achieved. With implementation of BIS it is anticipated that the remaining comping activities will be eliminated.

Aging Technology Platform

- Reduce the number of stand-alone systems supporting Finance's budget development and administration processes by 80%.

Based on the objectives identified above, it is expected that a reduction of approximately 17,000 staff hours or the equivalent of approximately 9.5 positions can be achieved. However, since only marginal savings will be gained, the time spent on largely manual and labor-intensive activities will be redirected to more value-added analyst activities. This approach will likely result in more significant cost avoidance/future savings, particularly in local assistance budgets. No savings are reflected in this FSR since they would not result in a reduction to current state expenditures but more likely would reduce or limit future growth.

3.4 Business Functional Requirements

The following major business functional requirements have been identified during the information collection associated with this report. In addition, certain state policies and procedures as outlined in Section 4.2.1, Internal and External Constraints and Assumptions and key conceptual features outlined in Section 5.1, Solution Description must also be met. For example the following must also be considered:

- Consistency with the State Information Technology Strategic Plan
- Use of the State Data Center to host the new system
- Consistency with and utilization of the California Integrated Information Network
- Adherence to budgeting and accounting sections of the State Administrative Manual and the Government Code (Note: the proposed system may necessitate revisions to the State Administrative Manual or Government Code provisions)

The table below presents major business functional requirements. The columns in the table are defined as follows:

- **Reference Number** – The number of the requirement, for reference purposes.
- **Requirement Category**
  - ✓ **Budget Functionality** – Core capabilities that a system must be able to perform.
  - ✓ **Information and Data Management** – Required data exchange and handling capabilities.
  - ✓ **Decision Support/Analysis** – Functionality related to analyzing data.
  - ✓ **Report/Query** – The ability to produce a formatted electronic and/or hard copy report or an online query from system data.
  - ✓ **Security** – Functionality related to ensuring the security of data and user access.
  - ✓ **Architecture** – An attribute of the technical architecture, platform, and/or development tool set.
- **Requirement Statement** – Provides a narrative description of each requirement.
- **Priority** – indicates the relative importance of the requirement. *Mandatory* requirements must be met by a new budget system. The state may apply preference to solutions that are also able to meet *Desirable* requirements.

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Ref #	Requirement	Category	Priority
1	The system must be integrated to support budget administration (comparison of budget to actuals), budget development, and capital outlay through all phases of the budget cycle, by program area.	Budget Functionality	Mandatory

Ref #	Requirement	Category	Priority
2	System must provide the ability to record and track all decisions made regarding relevant budget issues, from inception through final budget implementation, between and within the following entities: Finance, Governor (including vetoes), legislative budget committees (including Conference).	Budget Functionality	Mandatory
3	System should provide the ability to record and track all decisions made regarding relevant budget issues between and within departments and agencies.	Budget Functionality	Desirable
4	The system must provide the ability to track Finance-defined issue types (e.g., origin, BCP, FL, ECP, Section Letters, etc.)	Information/Data Management	Mandatory
5	The system should, where appropriate, provide a listing of valid values at data entry (i.e., drop-down lists, pop-up windows, look-up tables).	Architecture	Mandatory
6	The system must allow multiple budget status conditions, as defined by Finance, to be simultaneously assigned to a budget issue.	Information/Data Management	Mandatory
7	System must provide multiple free-form text entry fields to track and document decision actions, analytical notes, presentation notes, etc.	Decision Support/Analysis	Mandatory
8	The system must be capable of interfacing with other statewide systems to obtain actual expenditures/encumbrances, position information, actual cash data, and budget bill information. Therefore interfaces must include but not be limited to the accounting systems (i.e., CalSTARS), SCO (HR), Treasurer's Office Debt Management, Dept. of Personnel Administration, Legislative Counsel, etc.	Information/Data Management	Mandatory
9	The system should be able to-perform daily, weekly, and monthly cash flow analysis. This includes the ability to roll daily information into a real-time cash flow status.	Decision Support/Analysis	Desirable
10	The system must include various analytical tools to produce charts, graphs and tables for reporting revenues and expenditures on state programs, budget areas and future trends.	Decision Support/Analysis	Mandatory
11	The system must capture and store the data necessary for budget related publications such as: Governor's Budget, Governor's Budget Summary, Budget Highlights, Final Change Book, May Revision Report, Final Budget Summary, Budget Bills, etc.	Information/Data Management	Mandatory
12	The system must be able to generate a file to create a printable hard copy of budget related publications such as: Governor's Budget, Governor's Budget Summary, Budget Highlights, May Revision Report, Final Budget Summary, Budget Bills, etc.	Report/Query	Mandatory

Ref #	Requirement	Category	Priority
13	The system must provide the ability to produce standard and ad-hoc reports/queries in both hardcopy and electronic formats. At a minimum, standard reports should include required information consistent with reports in the current Finance budget applications.	Report/Query	Mandatory
14	End users must be able to store ad-hoc reports/queries for future use.	Report/Query	Mandatory
15	The system must allow information to be maintained and available for update and queries in both hardcopy and electronic formats for multiple years (minimum of 10 years or as defined by Finance).	Information/Data Management	Mandatory
16	The system must provide a mechanism for archiving and retrieving data (including table values) that are 10 years or older.	Architecture	Mandatory
17	The system must allow issues to be entered at a summary level, with detail to be entered at a later time. If an issue requires additional information before it is complete, the system should provide a "placeholder" or prompt the user to enter the required data.	Budget Functionality	Mandatory
18	The system must provide the ability to group budget issues into a high-level issue to be used for reports, queries, and presentations.	Budget Functionality	Mandatory
19	The system must provide the ability to maintain multiple versions of a budget simultaneously, with each version uniquely identified.	Budget Functionality	Mandatory
20	The system must provide web-based functionality to allow data to be input and updated over the Internet, and to allow reports and queries to be generated over the Internet.	Architecture	Mandatory
21	The system must provide the ability to export data into other applications such as Microsoft Office, including Access and Excel, to perform analysis.	Information/Data Management	Mandatory
22	The system shall support multiple levels of budgeting allowing users to build budgets at the level of detail needed to meet the user's needs (this may be at a more detailed level than required by Finance)	Budget Functionality	Mandatory
23	The system will allow the user to specify the level of detail for a report or query and drill down from the highest to the lowest level of detail.	Report/Query	Mandatory
24	The system must keep an audit trail of all relevant (e.g., dollar changes, status code change, etc.) activities within the system as defined by Finance. Capture time stamp and user-id of the change.	Architecture	Mandatory

Ref #	Requirement	Category	Priority
25	The system must include automated workflow capabilities including online routing and approvals.	Architecture	Mandatory
26	The system must provide text editing functionality, such as spell check, formatting (bulleting, numbering, word wrapping, etc.) for entry and storage of all textual information/data.	Architecture	Mandatory
27	The system should retain formatting when exporting information to external applications such as MS Word or MS Excel.	Information/Data Management	Desirable
28	The system must include comprehensive security features that allow user access only to that portion of the budget the user is responsible for developing, reviewing, and/or approving.	Security	Mandatory
29	The system must allow user access to be defined based on role/responsibility and budget status (the timing or cycle of the budget transactions) and system status (e.g., ability to lockout selected users).	Security	Mandatory
30	The system shall provide concurrent multi-user access for hundreds of users without affecting system performance to all modules/functions within the system and should help resolve conflicts of near simultaneous attempts to change the same data by informing users of conflicts in data entry.	Security	Mandatory
31	The system must allow Finance to identify restricted access to certain entities, e.g., public or other state users.	Security	Mandatory
32	The system will provide the ability to electronically capture budget data from external agencies at various times during the year.	Information/Data Management	Mandatory
33	The system will provide the ability to electronically transfer budget data to external agencies at various times during the year.	Information/Data Management	Mandatory
34	The system must have the ability to rollover base budget amounts each fiscal year, which can be further adjusted to reflect the enacted budget.	Information/Data Management	Mandatory
35	Authorized users must be able to designate which budget 'version' to use to create a base budget and for the beginning of a budget development cycle.	Information/Data Management	Mandatory
36	The system must support the ability to identify within an issue the budget categories such as one-time, limited-term and full-year costs components. The purpose of this is to identify adjustments to the base budget during subsequent year(s).	Information/Data Management	Mandatory
37	The system must provide the capability to establish rules for rounding at input and reporting, including calculations.	Architecture	Mandatory

Ref #	Requirement	Category	Priority
38	The system shall provide the ability to model across-the-board budget changes, with the ability to exclude departments, programs, appropriations, etc.	Budget Functionality	Mandatory
39	The new system must include the ability to specify data validation edits.	Architecture	Mandatory
40	The system must allow authorized users to maintain tables, parameters, values, codes, sort or selection criteria, etc.	Architecture	Mandatory
41	The system must allow authorized users to define new fields.	Information/Data Management	Mandatory
42	The new system should have the ability to capture and report on performance measures.	Decision Support/Analysis	Desirable
43	The system must provide the ability to track who is logged into the system.	Security	Mandatory
44	The system should be capable of imaging and retrieving relevant budget documents (such as news articles, reports, and other back up material not in BIS).	Architecture	Desirable
45	The system must provide data updates instantaneously (online, real-time).	Architecture	Mandatory
46	The system must be scalable and flexible such that Finance may modify system business rules to accommodate reasonable business rule/legislation changes.	Architecture	Mandatory
47	The system must provide the ability to capture expiration dates and issue a warning flag signifying that a budgeted program is nearing its expiration date.	Budget Functionality	Mandatory
48	The system must provide the ability to track the year that an appropriation is approved, the year(s) that it's available for expenditure, with the last year being the final year of expenditure.	Budget Functionality	Mandatory
49	The system shall provide online help at the module, screen, and field level.	Architecture	Mandatory
50	The system shall provide online user help documentation that is indexed and searchable.	Architecture	Mandatory
51	System tables must be incremented and rolled into new Fiscal Year.	Architecture	Mandatory
52	The system shall provide the ability to capture and store e-signatures or other authorizing identification.	Architecture	Mandatory
53	The system must allow authorized users access to post data that affects a prior "point-in-time" version or dataset.	Architecture	Mandatory

54	System must allow reporting from a static "point-in-time" version or dataset (i.e., Prop 98, mid-year adjustments) while allowing users to continue to update a succeeding "point-in-time".	Architecture	Mandatory
55	System must provide ability to generate reports that identify all incremental changes between two versions or points in time.	Report/Query	Mandatory
56	System must minimize the need for redundant data entry. For example, program line items should be entered only once but can be accessed for multiple purposes.	Architecture	Mandatory
57	The system shall operate on an industry-accepted platform which provides reliability and scalability.	Architecture	Mandatory
58	The system shall provide the ability to maintain multiple operating environments for application development, testing, training, and production.	Architecture	Mandatory
59	The system should be capable of automatically notifying users in a particular workflow to handle activities that cannot be automated. A notification or alert contains all supporting information a user needs to make a decision, and lets them choose from a selection of appropriate responses.	Architecture	Desirable
60	The system must provide flexible workflow rules that allow for changes - An authorized user can add, remove or change workflow activities, or set up new prerequisite relationships among activities.	Architecture	Mandatory
61	The system must provide the ability to establish budgets using an organization structure defined by Finance's current accounting system (i.e., CalSTARS). For example the structure must allow for a relationship of One-to-Many Funds to Appropriations.	Budget Functionality	Mandatory
62	The system chart of accounts used for budgeting should be similarly structured as the chart of accounts used for accounting (e.g., budget organization versus accounting organization, cost center, etc).	Budget Functionality	Mandatory
63	The system must support recording revenue estimates by fund and source.	Budget Functionality	Mandatory
64	The system must capture budgeted equipment detail over defined thresholds from departments for reporting purposes (Supplemental Schedule of Equipment).	Information/Data Management	Mandatory
65	The system must provide the ability to record budgeted federal funds detail for reporting purposes (Federal Funds Detail Schedule).	Information/Data Management	Mandatory
66	The system must provide the ability to record Operating Expenses and Equipment (OE&E) detail for reporting purposes (OE&E Schedule).	Information/Data Management	Mandatory

67	The system must provide the ability to record reimbursements detail for reporting purposes (Reimbursements Schedule).	Information/Data Management	Mandatory
68	The system must provide the ability to re-appropriate items accounted for in a prior year budget, such as capital projects.	Information/Data Management	Mandatory
69	The system must allow users, based on authorization and security, the ability to revise data submitted by departments. The budget adjustments will be submitted to BIS through a budget form (soft/hard copy). Changes, including department revisions, can be made at specified stages in the budget process.	Information/Data Management	Mandatory
70	The system must track various types of appropriations, including supplemental/emergency/budget amendment/mid-year adjustments.	Information/Data Management	Mandatory
71	The system must support reorganizations within and among agencies consistent with changes to the accounting organization structure.	Budget Functionality	Mandatory
72	The system must provide the ability to identify the source/authorization of the budget authority for a specific department/program/agency.	Information/Data Management	Mandatory
73	The system must tie statewide issues and programs (i.e., Benchmarks or Governor's special issues), actual and budgeted expenditures (including encumbrances), together across agency lines.	Information/Data Management	Mandatory
74	The system must provide the ability to automatically route data serially or in parallel to work queues of users with specific roles (e.g., by PBM) for (1) additional data entry, (2) approval, (3) decision processing, etc.	Architecture	Mandatory
75	The system must support the use of automatic notification (internal and external) based on status of a workflow item, date, event and user role (e.g., 30-day notification letter).	Architecture	Mandatory
76	The system must provide online query and the ability to generate reports indicating where a workflow item is in the process and what action is needed (e.g., open, approved, denied, etc.).	Report/Query	Mandatory
77	The system should allow associated emails, working comments, etc., to be related to stored and imaged documents (i.e., associate the indexed documents with any additional actions, activities, events pertaining to that budget issue or document, allow for multiple associations).	Information/Data Management	Desirable
78	The system must provide an easy to use Full Text Search capability, including phrase searches similar to Internet-based searches.	Architecture	Mandatory

To obtain a broader range of input regarding system requirements, state agencies were asked to rank specified business requirements included in the previous list. In addition, department staff identified additional requirements that were not included in the Finance list. Consequently, there are differences between the two sets of requirements. These requirements will be consolidated and some of the priorities may be adjusted as a result. In total twenty-one state agencies were contacted and were selected to represent a cross-section of:

- Sizes - Small, Medium, and Large
- Accounting systems - CalSTARS vs. Non-CalSTARS
- Complexity - Simple (single funding source) vs. Complex (multiple funding sources)
- Workload – Program (funded for specific programs) vs. Categorical (personnel services or operating and expense)

A representative group of agencies was contacted and requested to rank their business needs. The matrix below presents the responses. The matrix includes the following information:

- **Reference Number** – The number of the requirement, for reference purposes.
- **Requirement Category**
  - ✓ **Budget Functionality** – Core capabilities that a system must be able to perform.
  - ✓ **Information and Data Management** – Required data exchange and handling capabilities.
  - ✓ **Decision Support/Analysis** – Functionality related to analyzing data.
  - ✓ **Report/Query** – The ability to produce a formatted electronic and/or hard copy report or an online query from system data.
  - ✓ **Security** – Functionality related to ensuring the security of data and user access.
  - ✓ **Architecture** – An attribute of the technical architecture, platform, and/or development tool set.
- **Requirement Statement** – Provides a narrative description of each requirement.
- **Priority** – indicates the relative importance of the requirement. *Mandatory (M)* requirements must be met by a new budget system. The state may apply preference to solutions that are also able to meet *Desirable (D)* requirements. (N) indicates that the department believes the requirement is not necessary.

NOTE: Total number of responses varies because some agencies did not respond to some requirements.

Priorities: M=Mandatory, D= Desirable, N=Not Needed

#	Requirement	Category	Priority*		
			M	D	N
1	The system must be integrated to support budget administration/management, budget development, and capital outlay through all phases of the budget cycle, by program area.	Budget Functionality	15	1	1
2	System must provide the ability to record and track all decisions made regarding relevant budget issues between and within departments and agencies.	Budget Functionality	16	3	2
3	System should provide the ability to record and track all final decisions made regarding relevant budget issues by the following entities: Finance, legislative budget committees (including Conference), Governor (including vetoes).	Budget Functionality	19	1	1
4	The system should, where appropriate, provide a listing of valid values at data entry (i.e., drop-down lists, pop-up windows, look-up tables).	Information/Data Management	9	10	2
5	System must provide multiple free-form text entry fields to track and document decision actions, analytical notes, presentation notes, etc.	Architecture	5	15	1
6	The system must be capable of interfacing with other statewide systems to obtain actual expenditures/encumbrances, position information, actual cash data, and budget bill information. Therefore interfaces must include but not be limited to the accounting systems (i.e., CalSTARS), SCO (HR), Treasurer's Office Debt Management, DPA, Legislative Counsel, etc.	Information/Data Management	16	4	1
7	The system should be able to-perform daily, weekly, and monthly cash flow analysis. This includes the ability to roll daily information into a real-time cash flow status.	Decision Support/Analysis	10	7	4
8	The system must include various analytical tools to produce charts, graphs and tables for reporting revenues and expenditures on state programs, budget areas and future trends.	Information/Data Management	6	11	4
9	The system must provide the ability to produce standard and ad-hoc reports/queries in both hardcopy and electronic formats.	Decision Support/Analysis	16	4	1
10	End users must be able to store ad-hoc reports/queries for future use.	Decision Support/Analysis	13	7	1
11	The system must allow information to be maintained and available for update and queries in both hardcopy and electronic formats for multiple years (minimum of 10 years or as defined by Finance).	Information/Data Management	13	7	1

#	Requirement	Category	Priority*		
			M	D	N
12	The system must provide a mechanism for archiving and retrieving data (including table values) that are 10 years or older.	Report/Query	6	14	1
13	The system must allow issues to be entered at a summary level, with detail to be entered at a later time. If an issue requires additional information before it is complete, the system should provide a "placeholder" or prompt the user to enter the required data.	Report/Query	7	11	2
14	The system must provide the ability to group budget issues into a high-level issue to be used for reports, queries, and presentations.	Report/Query	6	12	3
15	The system must provide the ability to maintain multiple versions of a budget simultaneously, with each version uniquely identified.	Information/Data Management	8	10	3
16	The system must provide web-based functionality to allow data to be input and updated over the Internet, and to allow reports and queries to be generated over the Internet.	Architecture	9	10	2
17	The system must provide the ability to export data into other applications such as Microsoft Office, including Access and Excel, to perform analysis.	Budget Functionality	19	1	1
18	The system shall support multiple levels of budgeting allowing users to build budgets at the level of detail needed to meet the user's needs (this may be at a more detailed level than required by Finance)	Budget Functionality	16	3	2
19	The system will allow the user to specify the level of detail for a report or query and drill down from the highest to the lowest level of detail.	Budget Functionality	13	6	2
20	The system must keep an audit trail of all relevant (e.g., dollar changes, status code change, etc.) activities within the system. Capture time stamp and userid of the change.	Architecture	19	1	1
21	The system must include automated workflow capabilities including online routing and approvals.	Information/Data Management	9	10	1
22	The system must provide text editing functionality, such as spell check, formatting (bulleting, numbering, word wrapping, etc.) for entry and storage of all textual information/data.	Budget Functionality	14	7	0
23	The system should retain formatting when exporting information to external applications such as MS Word or MS Excel.	Report/Query	14	6	1

#	Requirement	Category	Priority*		
			M	D	N
24	The system must include comprehensive security features that allow user access only to that portion of the budget the user is responsible for developing, reviewing, and/or approving.	Architecture	17	2	1
25	The system must allow user access to be defined based on role/responsibility and budget status (the timing or cycle of the budget transactions) and system status (e.g., ability to lockout selected users).	Architecture	16	4	1
26	The system shall provide concurrent multi-user access for hundreds of users without affecting system performance to all modules/functions within the system and should help resolve conflicts of near simultaneous attempts to change the same data by informing users of conflicts in data entry.	Architecture	17	3	1
27	The system will provide the ability to electronically transfer budget data to external agencies at various times during the year.	Information/Data Management	13	6	1
28	The system must have the ability to rollover base budget amounts each fiscal year, which can be further adjusted to reflect the enacted budget.	Security	17	4	0
29	Authorized users must be able to designate which budget 'version' to use to create a base budget and for the beginning of a budget development cycle.	Security	15	4	2
30	The system should support the ability to identify within an issue the budget categories such as one-time, limited-term and full-year costs components. The purpose of this is to identify adjustments to the base budget during subsequent year(s).	Security	14	7	0
31	The system must provide the capability to establish rules for rounding at input and reporting, including calculations.	Security	15	6	0
32	The new system must include the ability to specify data validation edits.	Information/Data Management	16	5	0
33	The system must allow authorized users to maintain tables, parameters, values, codes, sort or selection criteria, etc.	Information/Data Management	13	6	2
34	The system must allow authorized users to define new fields.	Information/Data Management	14	6	1
35	The new system should have the ability to capture and report on performance measures.	Information/Data Management	9	8	4

#	Requirement	Category	Priority*		
			M	D	N
36	The system must provide the ability to track who is logged into the system.	Information/Data Management	8	10	3
37	The system should be capable of imaging and retrieving relevant budget documents (such as news articles, reports, and other back up material not in BIS).	Architecture	12	9	0
38	The system must provide data updates instantaneously (online, real-time)	Budget Functionality	16	5	0
39	The system must be scalable and flexible such that the Department may modify system business rules related to Department budgets to accommodate reasonable business rule/legislation changes.	Architecture	14	6	0
40	The system must provide the ability to capture expiration dates and issue a warning flag signifying that a budgeted program is nearing its expiration date.	Architecture	5	14	2
41	The system must provide the ability to track the year that an appropriation is approved, the year(s) that it's available for expenditure, with the last year being the final year of expenditure.	Information/Data Management	15	5	1
42	The system shall provide online help at the module, screen, and field level.	Decision Support/Analysis	10	11	0
43	The system shall provide online user help documentation that is indexed and searchable.	Security	11	10	0
44	System tables must be incremented and rolled into new Fiscal Year.	Architecture	11	9	0
45	The system shall provide the ability to capture and store e-signatures or other authorizing identification.	Architecture	9	11	0
46	System must provide ability to generate a report that identifies all incremental changes between two versions or points in time.	Architecture	11	8	2
47	System must minimize the need for redundant data entry. For example, program line items should be entered only once but can be accessed for multiple purposes.	Budget Functionality	18	2	0

#	Requirement	Category	Priority*		
			M	D	N
48	The system should be capable of automatically notifying users in a particular workflow to handle activities that cannot be automated. A notification or alert contains all supporting information a user needs to make a decision, and lets them choose from a selection of appropriate responses.	Budget Functionality	3	14	3
49	The system must provide flexible workflow rules that allow for changes - An authorized user can add, remove or change workflow activities, or set up new prerequisite relationships among activities.	Architecture	7	11	2
50	The system must provide the ability to establish budgets using an organization structure defined by Finance's current accounting system (i.e., CalSTARS). For example the structure must allow for a relationship of One-to-Many Funds to Appropriations.	Architecture	11	5	4
51	The system chart of accounts used for budgeting should be similarly structured as the chart of accounts used for accounting (e.g., budget organization versus accounting organization, cost center, etc).	Architecture	16	2	2
52	The system must support budgeting revenue estimates by fund and source.	Architecture	12	6	3
53	The system must capture equipment detail over defined thresholds from departments for reporting purposes (Supplemental Schedule of Equipment).	Architecture	7	10	4
54	The system must provide the ability to record budgeted federal funds detail for reporting purposes (Federal Funds Detail Schedule).	Architecture	9	10	2
55	The system must provide the ability to record Operating Expenses and Equipment (OE&E) detail for reporting purposes (OE&E Schedule).	Report/Query	10	9	2
56	The system must provide the ability to record reimbursements detail for reporting purposes (Reimbursements Schedule).	Architecture	10	8	3
57	The system must provide the ability to re-appropriate items accounted for in a prior year budget, such as capital projects.	Architecture	14	5	2
58	The system must track various types of appropriations, including supplemental/emergency/ budget amendment/mid-year adjustments.	Architecture	17	3	1
59	The system must support reorganizations within and among agencies consistent with changes to the accounting organization structure.	Architecture	12	7	2

#	Requirement	Category	Priority*		
			M	D	N
60	The system must provide the ability to identify the source/authorization of the budget authority for a specific department/program/agency.	Architecture	12	9	0
61	The system must provide the ability to automatically route data serially or in parallel to work queues of users with specific roles for (1) additional data entry, (2) approval, (3) decision processing, etc.	Budget Functionality	6	10	3
62	The system must support the use of automatic notification (internal and external) based on status of a workflow item, date, event and user role (e.g., 30-day notification letter).	Budget Functionality	5	15	1
63	The system must provide online query and the ability to generate reports indicating where a workflow item is in the process and what action is needed (e.g., open, approved, denied, etc.).	Budget Functionality	9	11	1
64	The system should allow associated emails, working comments, etc to be related to stored and imaged documents (i.e., associate the indexed documents with any additional actions, activities, events pertaining to that budget issue or document, allow for multiple associations).	Information/Data Management	6	12	3
65	The system must provide an easy to use Full Text Search capability, including phrase searches similar to Internet-based searches	Information/Data Management	7	12	2
66	Apply a percentage increase or decrease to a single or range of budget figures.	Information/Data Management	9	10	2
67	Accept and process appropriation totals and program details after final budget is posted.	Information/Data Management	14	6	1
68	Ability to run compound/multiple variable “what if” scenarios for expenditures and revenues.	Information/Data Management	7	11	3
69	Ability to forecast based on straight-line projections which include review and incorporation of regular historical revenue expenditure, apportionment, appropriation and encumbrance patterns.	Information/Data Management	9	9	3
70	Provide the ability to perform linear regression analysis.	Information/Data Management	2	13	6
71	Provide the ability to show multiple future years’ impact beyond the fund estimate period.	Budget Functionality	4	13	3

#	Requirement	Category	Priority*		
			M	D	N
72	Allow override of appropriation control by authorized staff.	Information/Data Management	11	6	3
73	Provide ability to flag certain project budget historical data to remain on-line until designated for archive.	Information/Data Management	6	13	2
74	Budget checking validation at multiple levels. For example, setup to check at project first, then cost center, then appropriation, etc.	Architecture	5	12	4
75	Reconciliation process between allocations and appropriations to ensure that allocations do not exceed appropriation levels, and to ensure that allocations are not released until final appropriation authority is approved.	Architecture	13	5	3
76	Track appropriations from the Governor's budget against updates from deficiency notices and federal change processes.	Report/Query	16	4	1
77	Report multiple budget types (appropriation, expenditure, revenue, etc.)	Information/Data Management	18	2	1

4.0 BASELINE ANALYSIS

The purpose of this section is to provide an understanding of the business and technical environment and infrastructure that currently supports the state's budget development and administration process. This section builds upon the Business Case provided in Section 3, further highlighting the need to implement the proposed solution articulated in this FSR in Section 5.

The baseline analysis is comprised of the following sub-sections:

4.1 Current Method

4.2 Technical Environment

4.3 Existing Infrastructure

4.1 Current Method

The mission of Finance is to serve as the Governor's chief fiscal policy advisor, to promote responsible resource allocation through the state's annual financial plan, and to ensure the financial integrity of the state. Finance advises the Governor on the fiscal condition of the state and guides the development and administration of the Governor's Budget plan for presentation to the Legislature.

The following summarizes the current business processes involved in the development and administration of the state's budget.

- ***Budget Development (July – January) –*** The California Constitution requires the Governor to submit a budget to the Legislature by January 10th of each year. The Governor presents the budget at a formal press conference on or before January 10th. The Director of Finance, as the chief fiscal policy advisor to the Governor, directs the effort for preparation of the Governor's Budget. The budget development process culminates with final budget decisions and the publication of the Governor's Budget package.

  State entity annual spending plans, or budgets, begin with agencies, departments, boards and commissions submitting Supplementary Schedule of Appropriations (Schedule 10) and Supplementary Schedule of Revenues and Transfers (Schedule 10R) to Finance. These schedules include actual revenues and expenditures for the most recent completed fiscal year (past year), revised revenues and expenditures estimates for the current year (current year), and proposed revenues and expenditures for the upcoming budget year (budget year).

  Finance budget analysts review the data and compile the information into the past, current and budget year format as presented in the annual Governor's Budget. As the budget data are compiled and reviewed, the Governor, through Finance, modifies the budget to reflect his policy emphasis.

Budget year proposed amounts are based on the current year's budget revised by workload adjustments and one-time, full-year, limited-term cost adjustments as well as other adjustments authorized in the Budget Act to establish a "base" budget. Additional changes to the base budget are then made through Budget Change Proposals (BCP) to reflect approved policy decisions. BCPs are developed by department staff and are submitted to the department directors for approval. Directors may approve, deny, or modify BCPs before forwarding them to the agency secretary, if applicable, for approval. BCPs are further reviewed by the agency secretary who may modify, approve, or deny them. BCPs approved by the director and agency secretary are submitted to Finance for review.

After receiving and reviewing BCPs, Finance may question the department about its budget changes, their effects on programs and their fiscal impacts. Approved BCPs are incorporated into the Governor's Budget as modifications to the department's budget and submitted to the Legislature.

- ***Spring Budget (February – May)*** **–**By statute, Finance is required to give the Legislature all proposed adjustments to the Governor's Budget between April 1st and May 14th of each year. From January through May, Finance continues its analysis and refines the budget by collecting updated information and honing projected revenues and expenditures. Proposed adjustments include an update of General Fund revenues and changes in expenditures for school funding requirements pursuant to Proposition 98, capital outlay, caseload, enrollment, or population. In addition, policy adjustments may be included to reflect changes in economic conditions. Following the completion of the spring decision process Finance updates data maintained in its various budget systems, prepares Finance letters detailing proposed changes, provides notifications to the Legislature, and produces the May Revision Report and other program specific documents for consideration during the legislative hearing process.

- ***Hearings (February – June)*** **–** The legislative hearing process generally begins in late February soon after the Legislative Analyst's Office (LAO) completes their analysis of the Governor's Budget package and issues a report. Each House of the Legislature scrutinizes and deliberates the spending plan in budget subcommittees. The Legislature holds budget hearings, and questions department and Finance representatives about the proposed budgets. LAO representatives also provide input and commentary during these hearings. At this time, program stakeholders may participate in the subcommittee hearings and voice their views on various state policies and programs.

  In addition to providing testimony supporting the Governor's Budget, Finance maintains the official record of legislative actions that occur in both the Senate and Assembly Budget Committees during the hearing process.

  Each House of the Legislature modifies the Budget to reflect their program and policy emphasis. Once each House adopts its version of the Budget, a Budget Conference Committee is then appointed to work out differences between the two versions. Based on Finance's record of legislative actions, legislative staff develop the Conference agenda.

To support Finance's testimony role during Conference, Finance prepares position papers and supporting documentation for each issue appearing in the Conference agenda. In addition to providing testimony during Conference, Finance produces daily General Fund Updates and develops analytical documentation for numerous working groups to assist in resolving critical budget issues. During all of these activities, Finance maintains the official record of Conference actions. Once the Conference Committee reaches agreement on the budget, a conference report is prepared and submitted to each house for concurrence.

After both Houses approve the Budget with a two-thirds vote, the Budget Bill is moved to the Governor for signature. Prior to signing the bill, the Governor may reduce or eliminate (veto) selected items to be excluded from the final spending plan.

- ***Finalize Budget (June – July) –*** Finalizing the budget encompasses both activities that the Administration completes prior to the signing of the Budget Bill and trailer bills, and subsequent administrative activities associated with implementing the Budget Act. These activities include the management decision process to determine appropriate adjustments to the legislatively approved budget and development of the actual veto messages (including the Veto Message Package), Budget Highlights, Rating Agency Binder (including the cash flow statement), and the Final Budget Summary.

  Assuming a relatively timely budget, this process begins by June and ends by late July. Finance Budget Units review their budget program areas for legislative augmentations or other potential veto issues prior to the enrollment of the Budget Bill and related budget trailer bills. Once the Budget Bill and related budget trailer bills have been enrolled, the Governor has two weeks to act on the bills. During this two-week period, final veto decisions are made and must be incorporated into Finance's budget systems. This culminates in the enacted budget, i.e., the Budget Act. Funding provisions and related legal requirements included in the Budget Act and related trailer bills must be complied with during the administration of the annual budget plan.

  Once the Governor signs the Budget Act, the State Controller's Office (SCO) and each department inputs the authorized spending plan into their accounting systems and begins posting expenditures in accordance with the Budget Act.

- ***Administration –*** Budget administration begins with an enacted budget and continues for multiple years based on the authority provided. The Budget Act provides flexibility under specified circumstances for adjustments of authorized expenditure levels. Though the Budget Act is considered the primary source of authorized expenditures, many programs receive their funding through statutory provisions that provide continuous funding authority.

  State agencies have the primary responsibility to operate within budgeted levels and to comply with any restrictions or limitations. Most adjustments to budget authority require Finance approval; many also require a formal notice to the Legislature and a waiting period to provide the opportunity for legislative review and response before final approval.

Part of the administration process includes significant mid-year adjustments to revenues and expenditures based upon changing economic conditions or other significant policy considerations.

As described in Section 3.2.1 State Agencies/Departments, departmental budgeting processes are similar to Finance's; state agencies and departments follow similar processes, procedures and timing as Finance during the budget development process, and provide Finance with budget estimates, historical spending data and analytical reports. A variety of software tools and stand-alone automated applications are used by departments and agencies, however, to a large extent, these processes are manual. Department management or budget directors develop departmental annual budgets and are responsible for administration of the approved budget.

As described above, Finance's current data computing environment supporting the budget development and administration processes is made up of multiple mainframe systems developed individually to support the different parts of the state's budget process. However, the information processing, decision support and timing needs of Finance have grown more complex yet the capabilities of the existing systems have not been able to meet these needs. Because of this, Finance has implemented and utilizes various work-around decision applications, such as Excel, Word, and Access to track, record, and report on the decision process, as the current systems are unable to provide the functionality found in these other business productivity tools.

While these work-arounds have resulted in automation that meet Finance's budget development and administration needs, it has created a highly manual and paper intensive environment with extensive data and process redundancy. In addition, the resulting work-arounds increase the number of reconciliation points for budget data. This is problematic as Finance requires information that is current, accurate and readily available in order to reliably support the development of California's budget.

4.1.1 Objectives of Current Systems

Finance uses Microsoft Windows Servers 2000 and 2003 as the primary server operating system (OS) and Windows XP (with Service Pack 2) as the desktop OS. Office 2003 Suite is used on the desktop as the productivity tools. Finance also uses Apple Computer Inc XServe servers running the OS X operating system, and Linux Redhat software to develop and deploy web-based applications and a mix of windows-based hardware/software and Apple-based hardware/software to produce web pages for the Internet. Finance uses Cisco routers and switches to tie together the local area (LAN) and wide area network (WAN). Security is provided by a Cisco PIX firewall and secure remote access for Finance users is provided by a Cisco Virtual Private Network (VPN) concentrator.

Resources at the state data centers are available via a WAN that includes appropriate routers and telecommunications lines. The Teale Data Center (TDC) maintains the routers and monitors the telecommunications lines. Finance's access to the Internet is via the California State Government Network (CSGNet) at TDC. Finance is charged for processing time, data storage, and backups based on TDC's published rate schedules.

The Department's mainframe budget applications run on the Triplex processor (MVS) at the TDC. These applications are written using the Natural programming language and store data in an IBM DB2 relational database.

The table below lists the relevant Finance budget systems and a description of their objectives:

Finance Budget Systems	Description
Budget Decision Support System (BUDDS)	The system is used for planning, tracking and approving base line and policy expenditure adjustments (Planning Estimates and Budget Change Proposals) during the fall decision support process. The system provides expenditure information for the fall General Fund Updates.
Change Book	The system captures incremental changes to the Governor's January 10 Budget during the spring process. The system tracks changes by the entity (house) proposing the change: i.e., Administration (House of Finance), Assembly, Senate, Conference, and Governor's vetoes (Veto House). The system also provides the expenditure information for the spring General Fund Updates.
Budget Preparation System (BPS)	The system identifies the authorized expenditures, savings and/or carryovers for every expenditure authority by item and by program or category. The system information is used to prepare the Governor's Budget and Governor's Budget summary schedules. This system also produces the Reconciliation with Appropriations report which is used to cross tie and verify expenditures included in various budget displays.
Fund Condition	The system captures expenditure information from BPS and revenue information from the Revenue System to create the Fund Condition Statements included in the Governor's Budget.
Personnel Year System	The system captures statewide positions, personnel-years, and associated dollar information. The system also tracks classifications (civil service, constitutional, statutory, and exempt) and is used to develop some of the Governor's Budget summary schedules.
Fund Maintenance	This system maintains the data for authorized state funds such as fund number, legal names and requirements, and administering organizations, including a history of changes. This data is referenced in most Budget applications and the Legislative Information System (LIS).
Capital Outlay Project Tracking System (COPTS)	COPTS captures Departments' net needs, alternatives, and proposed plans for infrastructure projects, their associated Budget Change Proposals, and projected 5-year plans.
Policy Decision Support (PDS)	The system is used to track budget issues, provide policy and baseline adjustments amounts (dollars/positions), prepare decision-meeting agendas, and provide supporting data during the decision-making process for both the fall and spring budget processes. The PDS system is also used to track decisions related to the veto of legislative augmentations or base funding amounts.
Governor's Budget Presentation System (GBPS)	The system combines Governor's Budget and Budget Summary information into a new hierarchical structure and presents it on the Internet. System data is collected from departments via Word and Excel (about 80%) and integrated with selected budget data maintained by Finance in its legacy

Finance Budget Systems	Description
	systems (about 20%). This data is then used to generate web pages and .pdf files for the presentation of Governor's Budget and Budget Summary. This system started capturing departmental data in the fall of 2004 and the first web presentation was in January 2005.
Revenue System (Schedule 10Rs)	The system captures total revenues, transfers, and loans. General Fund, special funds, any transfer that affects these funds, and all inter-fund loans are captured in the system. This system is used for both the fall and spring processes and has no capability to track individual revenue issues, thus a spreadsheet or PDS is used to track issues.

The following summarizes spreadsheets used to support the budget development and administration process:

- Decision/Issue Tracking Spreadsheets (internal and external spreadsheets)—Captures data used to track and record decisions during the fall and spring decision process, including mid-year adjustments.
- One-Time Issue Spreadsheet—Captures the information and reports on one-time revenue and expenditure issues, primarily General Fund (Non-Proposition 98).
- Veto Tracking Spreadsheet—Provides the ability to calculate the effect of the vetoes on the General Fund reserve, tracks incremental changes to issues, provides totals and records decisions at various levels for each issue.
- General Fund Update Spreadsheets (fall and spring)—Captures the data elements to produce the General Fund Update for the fall and spring budget process.
- Deficiency Spreadsheet—Captures the data to prepare the Omnibus Deficiency Bill and the 9840 statewide informational item.
- Trailer Bill Spreadsheet—Captures initial trailer bill data from PDS, including identifying issues with pending trailer bill language and provides totals by issue. Trailer bill status is then tracked manually through budget enactment.
- Loans and Transfers Spreadsheet—Captures information related to loans and transfers for budget and cash purposes.
- Cash Flow Adjustments and Survey Information—Captures data elements to produce the cash flow surveys.
- Multi-year Projection Spreadsheet—Captures data to produce the General Fund multi-year projection.
- Enrollment/Caseload/Population (ECP) and Cost-of-Living Adjustment (COLA)—Captures data to produce the ECP Counts and General Fund Dollars and General Fund COLA information

- State Appropriation Limit (SAL) Spreadsheets—Captures the data to produce the SAL package. The information includes the SAL Summary (Schedule 12-A), SAL Exclusions, and SAL Growth Factor.

4.1.2 Abilities of Current Systems

As discussed previously, Finance's current data computing environment supporting the budget development and administration processes is made up of multiple mainframe systems developed individually to support the different parts of the state's budget process. However, the information processing, decision support and timing needs of the Finance has grown more complex yet the capabilities of the existing systems have not been able to meet these needs. Because of this, Finance has implemented and utilizes various work-around decision applications, such as Excel, Word, and Access to track, record, and report on the decision process, as the current systems are unable to provide this functionality.

4.1.3 Level of User and Technical Staff Satisfaction

4.1.3.1 User Satisfaction

As described in 3.2 – Problem/Opportunity Statement, the systems do not meet the state's needs for automation to support the budget development and administration processes. Most analysts have little, if any, experience with any type of mainframe application. This environment has few "user friendly" components, such as drop-down menus and validation checks. In addition, staff must learn separate systems for each phase of the budget process and require refresher training annually. As a result, there is a steep learning curve, user frustration and general dissatisfaction with Finance's systems.

4.1.3.2 Technical Staff Satisfaction

Currently budget applications are divided among three hardware/software platforms:

1. Mainframe applications written in Natural running against a DB2 database.
2. Client-server applications written in Visual Basic or Access running against Microsoft SQL Server 2000 databases.
3. Web-based applications written in Java, (most using WebObjects) running against DB2, PostgreSQL, Microsoft SQL Server, and Oracle databases.

The diversity of application platforms requires staff be trained to work in widely varying environments (hardware as well as software), and sometimes requires augmentation with contract staff, both of which increase the difficulty of maintaining the applications. In addition, the mix of older technologies and newer development environments, some of which are inconsistent with industry standards, makes it difficult to recruit and retain technical staff.

4.1.4 Data Input

The majority of budget related data is entered manually into the individual systems, and each system has a range of data validation processes and capabilities to identify data entry errors or invalid data. There is duplication of data across applications. Most detailed data is not captured

in the budget systems, but stored in paper-based files. Legacy Finance systems primarily capture high level data which must be reconciled to the detailed data provided by departments.

4.1.5 Data Characteristics

A portion of the budget application data uses the IBM DB2 relational database structure, stored at TDC. Though small, this database is moderately complex, housing approximately 150 tables, of which 100-125 are the core application data tables. This database is approximately 1.25 gigabytes in size. Other portions of the budget applications' data are housed at Finance in SQL Server, Oracle, and PostgreSQL databases, and total about 2 gigabytes of data.

4.1.6 Provisions for Security, Privacy and Confidentiality

A portion of Finance's IT Infrastructure is provided and managed by TDC and Service Level Agreements govern the services provided by TDC. Services include management, backup, and security of Finance's Mainframe budget application systems and DB2 database data. The TDC also provides remote Hot site disaster recovery capability, management of the Finance routers, located in Finance offices at 915 L Street, 10th and K Streets, and at 300 Capitol Mall, as well as Finance's pipeline to TDC and the Internet.

Provisions for security, privacy and confidentiality include the use of:

- Internal access control lists to restrict access of files and folders to valid users
- Isolation of data on independent user-controlled data storage locations for each unit within Finance
- Firewalls to prevent external network access into the Finance servers, databases and data files
- Security card key control on computer room and network/hardware areas

4.1.7 Equipment Requirements

The equipment requirements of the current system are documented in the Existing Infrastructure subsection below.

4.1.8 Software Characteristics

The software characteristics of the current system are documented in the Existing Infrastructure subsection below.

4.1.9 Internal and External Interfaces

The following are the data interfaces in the current system environment.

- SCO – At budget enactment just prior to vetoes, Finance transfers the file of Budget Act items to assist the State Controller's Office (SCO) with some preliminary set-up of SCO files. Since these files are preliminary they require manual modifications by the SCO. Throughout the year, Finance transfers the file of certain statewide adjustments to expenditures, as the back-up to Executive Orders. Also, for the Governor's Budget past

year General Fund reconciliation, the SCO transfers their file of expenditures and authorizations, as well as revenues and transfers, to Finance.

- CalSTARS – Upon request of CalSTARS, Finance transfers a complete file of the past and current year authorizations, expenditures, and adjustments to CalSTARS.
- LIS – The Legislative Information System (LIS) uses the same "lookup" data (for Organizations and Funds) as used by the Budget applications. LIS data is not transferred to budget applications, but the system is used as a resource (to budget analysts) for newly enacted fiscal legislation, their appropriations, funding, hearing dates and line-item vetoes.
- COPTS – Issue level data (for Capital Outlay BCPs) is transferred to BUDDS database to assist in the General Fund Update process.
- GBPS – This system derives about 20% of the data (primarily numerical) used in the Budget presentation from other budget applications. This includes Fund Condition and Reconciliation with Appropriations data which is transferred in an XML format. All calculations have been completed before this data is transferred from legacy systems to GBPS. The remaining 80% of data (numerical and narrative) is gathered from state departments in spreadsheet and word processing files and uploaded to the GBPS database Each component (various narrative types, fiscal data, and special displays) involves separate upload routines.

4.1.10 Personnel Requirements

The following table lists the personnel requirements for the support of the current systems.

IT Classification	Number of IT Positions	Job Support Role
Chief Information Officer (CIO)	0.3	Directs the Finance IS unit in support of the Department's business strategies.
Data Processing Manager (DPM) III	1.0	Manages the development and maintenance of enterprise budget application systems.
Senior Programmer Analyst (Spec.)	2.0	Perform independent, most complex analysis, design, coding and testing of enterprise budget application systems. Assist Staff and Associate level-programmers. Consult with DPM III and CIO.
Staff Information Systems Analyst (Spec.)	1.0	Perform high-level analysis, and assist with design and unit-testing of enterprise budget application systems. Consults with all staff and DPM III.
Staff Programmer Analyst (Spec.)	3.5	Perform high-level analysis, design, coding and testing of enterprise budget application systems. Assist Associate-level programmer. Consult with Senior-level staff and DPM III.
Associate Programmer Analyst (Spec.)	1.0	Perform analysis, design, coding and testing of enterprise budget application systems. Consult with Staff and Senior-level staff.

4.1.11 System Documentation

Finance uses standards for documenting applications and presents much of the documentation on the Intranet and Internet. The Finance Analyst Internal Training Handbook (FAITH) assists budget analysts as well as IS developers in understanding, navigating and using the Budget applications. Additionally, LIS, COPTS and PDS have individual documentation on line. The Budget Analyst Guide (BAG) is available to both Finance and external users on the Finance public web page. The core application documentation includes operating procedures, service requests' revisions, and program overviews in the code of nearly 750 mainframe programs.

4.2 Technical Environment

Finance's technology environment supporting the budget development and administration is described in Sections *4.1 – Current Method* and *4.3 – Existing Infrastructure*. This section provides an overview of those technologies impacted by the implementation of a new Budget System.

4.2.1 Internal and External Constraints/Assumptions

- ***Expected Life of Proposed Solution***

  No fixed end date exists at which a proposed solution would be discontinued. The proposed solution will have to be flexible enough to accommodate future changes, including changes in the budget process, changes in state program structure, the addition of new programs and/or changes in the technology environment.

  No major changes or component replacements are anticipated from a strategic or tactical need. As vendor software and hardware revisions and improvements occur, Finance will need to review and implement them as required.

- ***Interfaces to other systems***

  The proposed solution will interface with several systems to exchange expenditure, authorization, adjustment, and revenue and transfers data. These systems include:

  - ✓ State Controller's Office
  - ✓ CalSTARS
  - ✓ Department/agency systems
  - ✓ Legislative Analyst's Office (LAO)
  - ✓ Legislative Counsel Bureau

- ***State-level information processing policies***

  The proposed solution will comply with state policies and strategic objectives related to information technology, including the following:

  - ✓ State Information Technology Strategic Plan (11/2004), Goal 2: Implement common business applications and systems to improve efficiency and cost-effectiveness

- ✓ Use of the State Data Center to host the new system
- ✓ Use of the state "My California" structure and portal environment as appropriate for Internet-based functionality
- ✓ Use of the California Integrated Information Network (CIIN) – the state's current and future vision for networking infrastructure.

- ***Financial constraints***

  The State of California is facing an unprecedented fiscal crisis. Finance is sensitive to this situation and believes that this project will contribute to the long-term health of the state, and ultimately provide real financial benefit by providing an "*enterprise-wide budget system ... necessary to produce the information managers' need to plan and manage.*"

- ***Legal and public policy constraints***

  Pending changes to state policy, future legislative changes, and changes related to the state's budget processes and policies may impact the scope of this effort. Additionally, the proposed solution must comply with policy requirements associated with the State Administrative Manual (SAM) and Government Code.

- ***Agency Information Management Policies and Procedures***

  The proposed solution will be implemented in concert with Finance policies and procedures, including the Information Security Policy, as documented in the current AIMS, and aligned with the state's strategy and direction.

- ***Staffing Requirements***

  It is assumed that the state staff from Finance as well as departments and agencies will participate as members of the implementation team. It is also assumed that state staff would be trained to support the maintenance and operations of any new system(s) that are implemented. The necessary skills required will be based upon the technical architecture of the solution and maintenance agreements established with the vendor(s) during procurement efforts.

4.3 Existing Infrastructure

The existing technical infrastructure consists of the following components:

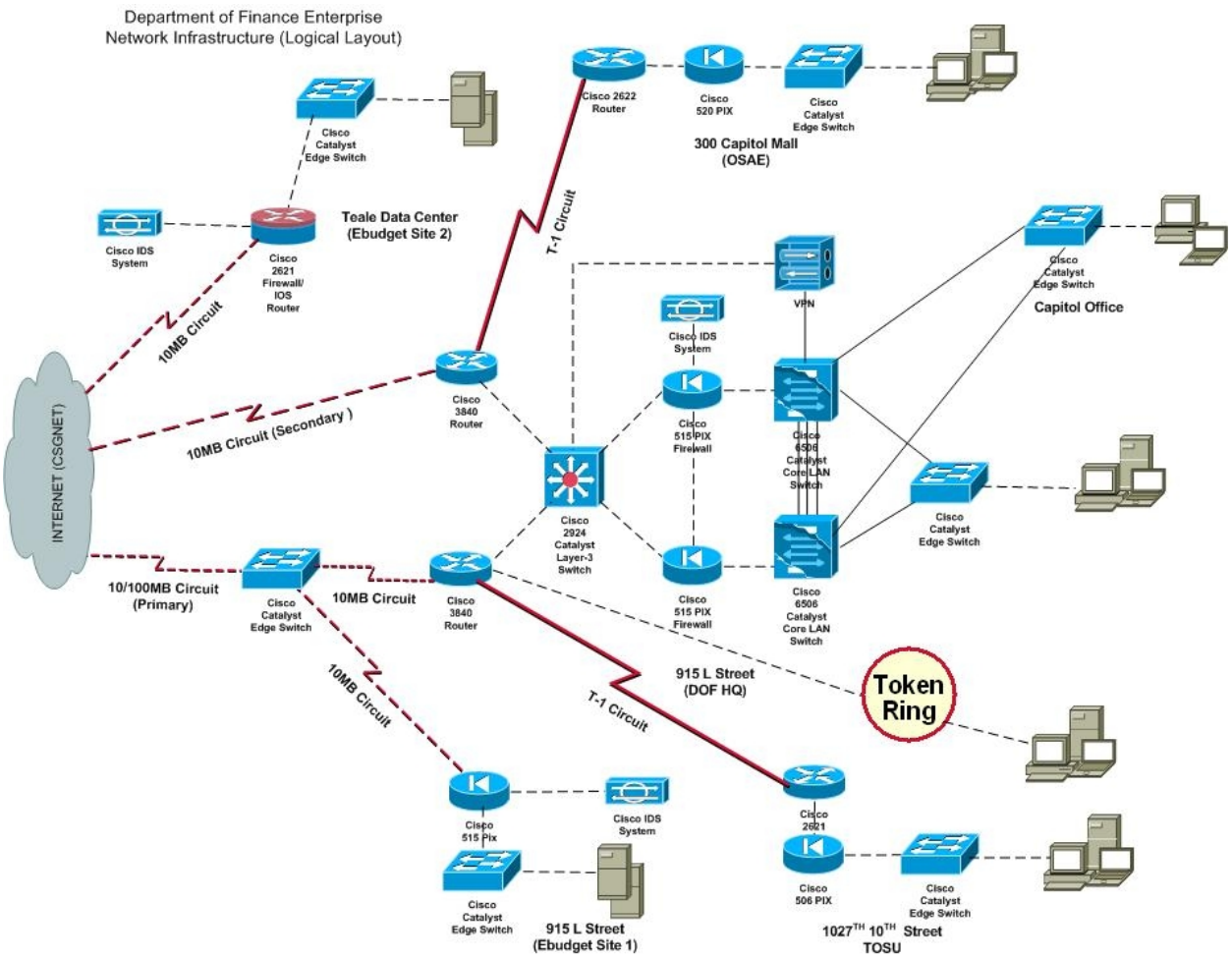
- ***Desktop Computers*** - A mix of Dell and Gateway desktop computers ranging from 930 MHz to 3 GHz with 256MB to 1GB of Memory.
- ***Network Protocols*** - Transmission Control Protocol/Internet Protocol (TCP/IP) is the standard network protocol utilized
- ***Network Hardware*** - Cisco 3550-48 Catalyst Switches, Cisco 3550-24 Catalyst Switches, Cisco 3548 XL Catalyst Switches, Cisco 6506 Catalyst Switches, Cisco 3015 VPN Concentrator, Cisco 1924 Catalyst Switches, Cisco 2948GL-3 Catalyst Switch, Cisco 3640 Routers, Cisco 2612 Router, Cisco 3500 XL and 2900 XL Catalyst Switches,

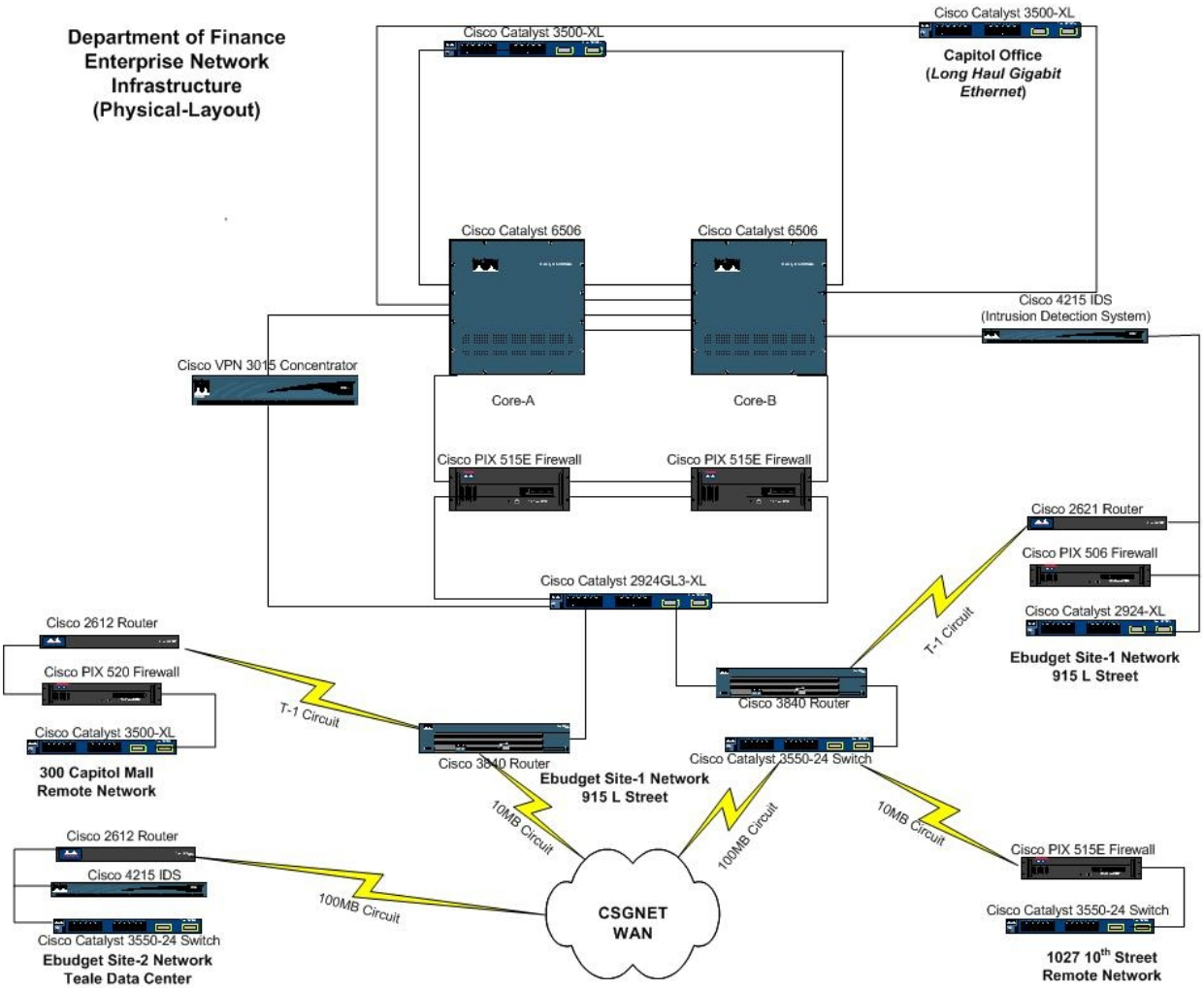
Cisco 520 PIX Firewall, Cisco 515E PIX Firewall, Cisco 506 PIX Firewall, Cisco 4215 Intrusion Detection Systems, Cabletron Token-Ring Hub

- ***Network Software*** - CiscoWorks 2000 (network device monitoring software), What's Up Gold (network device monitoring software), Hyena (server and user administration software), LAN Hound (network traffic monitoring software), and ArcServe 2000 (backup software).
- ***Application Development Software/Languages/Tools*** - Visual Basic 6, Java, Natural, SQL, WebObjects, Microsoft Access, Crystal Reports, Visio
- ***Operating System Software*** - NT 4.0 Server, Windows 2000 and 2003 Servers, Windows XP, Mac OS X and Red Hat Linux Enterprise 3
- ***Personal Productivity Software*** - Microsoft Office 2003 suite of products
- ***Database Management Software*** - Microsoft Access 2003, DB2 version 7 with QMF, SQL Server 2000 Standard with Quest Spotlight, PostgreSQL version 7 with PhpPgAdmin and Putty, MySQL, and Oracle 10g Standard.
- ***LAN Servers*** - Finance employs the following equipment to provide a wide variety of services:
    - ✓ Application Development Server
    - ✓ Public Web Server
    - ✓ WebObjects Application Servers
    - ✓ Tomcat Application Servers
    - ✓ Network Attached Storage (NAS)
    - ✓ File Servers
    - ✓ Printer Servers
    - ✓ Domain Controllers
    - ✓ Backup Domain Controllers
    - ✓ Internet Servers
    - ✓ Database Servers
    - ✓ Exchange Servers (email)
    - ✓ Backup Servers
    - ✓ Passport Server (access to TDC mainframe applications)
    - ✓ SNA Servers (email from data center applications)
    - ✓ Tape Library Servers
    - ✓ Software Repository Server

- ***Internet Connectivity –*** Finance is connected to the Internet via three 10MB Wide Area Network (WAN) circuits connected to the state's internet service provider – California State Government Network (CSGNet) – through the Teale Data Center.

The diagrams on the following pages depict Finance's logical and physical network and Internet infrastructure.





4.3.1 Application Development Methodology

Finance has not adopted a standard application development methodology. The implementation of a new Budget system will be based on an industry accepted application development methodology.

4.3.2 Project Management Methodology

Finance uses a project management methodology based on Project Management requirements outlined in the State Administrative Manual (SAM) and the State Information Management Manual (SIMM).

5.0 PROPOSED SOLUTION

5.1 Solution Description – Implement a Statewide Enterprise Budget System

"*We should deliver better and more efficient services through high quality information technology applications that integrate state processes and share information. Collaborative use of technologies, however, is extremely rare within California government. For example, we rely on hundreds of separately managed e-mail systems for internal communications, and a multitude of disparate systems for managing our accounting, human resources, and procurement and asset management. This disjointed environment undermines the operational integrity of state government and delivery of services to the people.*

… Identifying and implementing a set of common, uniform applications that automate business processes across all Executive Branch organizations is the next logical step. Priority should be given to centrally managed applications such as e-mail, security and antivirus tools and directory services… ***Next, we should develop and centrally host "shared services" applications that will provide the backbone for business management statewide, such as budgeting and accounting, managing human resources, asset management and procurement management."***[4]

California is the seventh largest economy in the world ($1.446 trillion gross state product[5] with an annual state budget of over $100 billion dollars). Given the importance of the state's budgeting process, there is significant demand for accurate budget information and flexible budget processes to support the state's fiscal and policy decision processes. Yet, as described in this document, the state's budgeting systems are cumbersome, resource consuming, and at risk for failure.

The proposed solution is to implement a commercial off the shelf (COTS) Budget Information System (BIS) that will meet Finance's budget development and administration needs and when fully operational the budget development and administration needs of departments and agencies. The solution will also address various information and budget deliberation needs of the Legislature. The BIS solution must operate in the context of the state's direction for an enterprise-wide solution[6].

Solution Conceptual Description

The BIS solution will be the foundation to replace Finance's aging budgeting systems and to implement a single comprehensive budget application supporting the state's fiscal and policy decision processes.

While the bidding vendors will determine the detailed structure of the actual solution, the following summarizes key conceptual features of the solution.

[4] California Performance Review, 2004
[5] Bureau of Economic Analysis, U.S. Department of Commerce
[6] California State Information Technology, Strategic Plan (November 2004). Goal 2 – Implement common business applications and systems to improve efficiency and cost-effectiveness.

- Provides broad functionality including workflow, issue management, document management, and report development capability.
- Workflow automation tools will route documents step-by-step through each business process and will be used to support the review and approval within and between departments, agencies and Finance.
- Final products and "publishing" will transition to a web-based environment.
- An electronic interface will exist between Finance and other stakeholders (i.e., SCO, LAO, etc.) to electronically exchange data such as appropriation information from the final Budget Act and revisions to expenditure authority, actual expenditure and revenue information, and position information.
- External stakeholders (Legislative staff, LAO, departments) will have access to BIS functions and reporting capabilities based on security and access authorizations.
- Much data input will devolve to departments for electronic submittal to Finance.
- Imaging capabilities will be used for any paper documentation that may still be required to support the budget process.
- Online review, approval, and routing capabilities allow electronic communication to internal and external stakeholders involved in the budget development process.
- Budget change proposals, section letters, Legislative hearing changes and budget bill language sheets will be generated in BIS and no longer be provided in hardcopy. However, a system report can be generated for "hardcopy" review, if desired.
- Electronic signatures or other authorizing identification will be used by departments/agencies to submit BCPs, finance letters, section letters, etc.

5.1.1 Hardware

The BIS project intends to implement a COTS solution; however, since specific COTS software has not yet been selected, certain information cannot be provided at this time. Additional information will be provided in the subsequent Special Project Report (SPR) upon completion of the evaluation and selection process and prior to final contract award.

The new solution will comply with state data center technical standards either planned or in existence at the time of project execution Finance's workstations run on a variety of Dell and Gateway desktop computers ranging from 930 MHz to 3 GHz with 256MB to 1GB of Memory.

5.1.2 Software

The application software for the proposed BIS solution has not been selected in order to allow multiple vendor-proposed solutions to be considered. The vendor solutions must satisfy the system requirements, be consistent with overall state direction, and will be evaluated on their

ability to do so. Detailed information about the COTS solution will be provided in the subsequent SPR.

5.1.3 Technical Platform

The technical platform for the proposed BIS solution will coincide with the software solution that best addresses the business and technical requirements that are included in this document. The technical platform will be compliant with state data center standards.

5.1.4 Development Approach

A systems integration vendor will support a phased development, configuration and implementation of the BIS solution. The state and the vendor will share management of the project. As such, the vendor responses to procurement efforts must provide a detailed specification as to how the development, configuration, and implementation of their solution will be approached. The system and management requirements, along with procurement factors will quantify the various vendor proposals. The appropriate methodology will be determined through joint discussions between the state and the vendor. The state will ensure that the vendor has adequate experience in the development methodology chosen. Section 6 of this document provides additional detail regarding state project management processes.

The project management team (state's Project Manager and the vendor Project Managers) will have knowledge of standard development and project management methodologies. The Project Managers will perform risk management and issue management continuously throughout the project. These tools will facilitate the identification and mitigation of development risks and issues potentially impacting the project. A preliminary risk management plan has been developed and includes identification of potential risks associated with this project and is included in Section 7 of this document.

5.1.5 Integration Issues

The Request for Proposal (RFP) will require the selected vendor to work with Finance to confirm all interfaces from the new system to external systems in order to meet the state's requirements. It is anticipated that the following types of interfaces will be required:

- **Inbound vs. Outbound:** Inbound interfaces transfer data from external systems into the proposed system. Outbound interfaces will transfer data from the proposed system to external systems.
- **Standard vs. Custom**: Standard interfaces will transfer data in a generic format which can be imported or exported by many different external systems. Custom interfaces will be developed for use by a single system for the specific use of that system. Custom interfaces will be developed on an "exception" basis; e.g., they will only be developed for systems which cannot accept the standard interface.
- **Permanent vs**. **Temporary:** Temporary interfaces will be developed and used for a limited, predetermined time period. For example, temporary interfaces may be utilized during a phased implementation process for systems which will ultimately be replaced by the proposed system, but which are still in operation when the proposed system is

initially implemented. Permanent interfaces will be developed for systems which will remain in production after the proposed system is implemented.

The vendor will work with the state to analyze state department/agency stand-alone financial systems and develop technical specifications which will allow external department/agencies to export or import data in the standard format (this task is assumed as part of the vendor responsibility and not specifically isolated). The selected contractor will develop, install, test, and implement the appropriate interfaces to supply information to – or accept information from – other departments and agencies. Each department/agency wishing to interface their stand-alone financial system, will be required to comply with this standard and make any changes required to their systems and processes in order to utilize the standard interface to:

- Adapt to the standard format, or modify their systems as appropriate to support the custom interface.
- Ensure consistency with the state's Uniform Code Manual (UCM) and chart of accounts
- Test the interfaces on their internal systems prior to production
- Implement the interface in accordance with the agreed upon schedule

Necessary modifications to departmental/agency systems are not included in the BIS solution. Departments/agencies will need to pay for, and if necessary request funding augmentations, if they determine changes are necessary to existing systems. Requests for funding would be evaluated on a case-by-case basis. Departments/agencies are not required to have their existing systems interface with the new system but they are required to submit their budget information in a format prescribed by Finance (current requirement). Therefore, departments/agencies may wish to establish a direct interface, which will be supported/encouraged to the extent practicable. Departments/agencies that do not interface with BIS will be able to input data directly into the system via defined data screens until such time that it becomes feasible to change or upgrade their budget application.

In addition to interfaces between department/agency-based stand-alone financial systems and the BIS solution, the following are also anticipated interfaces:

- Accounting systems (CalSTARS/non CalSTARS) to support the following:
  - ✓ Comparison of year-to-date expenditures, including encumbrances to plan.
  - ✓ Automated uploading of the approved budget into the accounting system.
  - ✓ Automated uploading of revised budgets to the accounting system to support easy tracking of the different components of a budget year (such as initial appropriations, supplemental appropriations and transfers) throughout the year.
- SCO's HR/payroll and accounting system to support the electronic exchange of the following:
  - ✓ Position data
  - ✓ Appropriation data

- ✓ Data related to revisions to expenditure authority
- ✓ Actual expenditure
- ✓ Revenue information

- Legislative Analyst's Office to support the exchange of LAO analyses of the Budget in a non-PDF format.
- Legislative Counsel to electronically transmit budget bill language sheets and trailer bills from the BIS solution.

5.1.6 Procurement Approach

Procurement of the product and services to implement the BIS solution will follow the Department of General Services' (DGS) policies and procedures. The BIS solution, as well as implementation and change management vendor services will be obtained through competitively bid, business-based procurement activities. In addition, Finance will engage a procurement expert at DGS to assist with appropriate procurement strategies.

Following completion of procurement efforts and prior to contract award, a Special Projects Report (SPR) will be prepared and submitted for approval.

5.1.7 Technical Interfaces

See Section – 5.1.5, Integration Issues for a discussion of interfaces.

5.1.8 Testing Plan

The BIS solution project team will conduct multiple testing phases to ensure the accuracy, completeness, and robustness of the solution. A test plan will be developed and executed and will include the following elements at a minimum:

- ***Unit testing:*** Test that each system module performs as designed providing the desired information and functionality.
- ***System testing:*** Test that system components work together as designed.
- ***Regression testing:*** Tests to confirm that any new designs, changed designs or added functionality does not negatively impact the production system functionality. Regression testing occurs at each point in the project where new entities are migrated to the production environment.
- ***Stress Testing:*** Tests to validate that the software and hardware operate together in a manner that meets the expected average and peak performance requirements. Stress testing is dependent on scripting as test scripts mimic the expected production environment.
- ***User acceptance testing:*** Users test the complete system to confirm that it functions in accordance with the system requirements based on a structured testing process.

A Test Plan will be developed with traceability to the business requirements defined in this FSR and any resulting RFP documents.

Unit Testing Phase

The development team will unit test each of the processes and functions developed and/or configured for the Budget System functionality effort. Unit testing is defined as the verification of the accuracy and completeness of the individual processes, programs, modules, objects, functions, and procedures that make up the system.

System Testing Phase

System testing will be conducted by the Test Team to verify that the BIS solution functionality works correctly as the various modules are integrated to create the complete system.

User Acceptance Testing Phase

User acceptance testing is the phase where state users who have been directly involved with the BIS solution implementation effort are used to test the system. These users perform their normal daily tasks and activities in the system to identify problems that would exist during actual production execution. User acceptance testing is helpful in identifying problems that may occur when the system behaves or reacts differently than documented in the requirements and design specifications.

5.1.9 Resource Requirements

Vendor contract personnel and state staff will be involved in project management activities as well as the designing, configuring, testing, change management, training, and implementation activities of the proposed solution. Project staff will include both technical and business staff. The following summarizes the resource requirements:

- State Project Sponsor
- State Project Director
- State dedicated (full time) Project Manager
- Executive Council composed of Finance, State Controller's Office and State Treasurer's Office executives, and Cabinet representatives.
- Budget Practices Council composed of Finance senior managers (Program Budget Managers, Chief Information Officer, OTROS Chief, and CalSTARS/FSCU Chief).
- Business Practices Advisory Committee composed of budget staff representatives from Finance, departments and agencies.
- Project Teams operating under the BIS project office composed of subject matter experts and technical staff from Finance to provide expertise relative to how the program areas and departments function and to assist in the implementation effort. These staff have the necessary knowledge to adequately provide support relative to their program areas, including (1) communicate their requirements, (2) provide analytical, training, roll out, and testing support, and (3) provide Help Desk support.

The exact state resource requirements needed to implement the BIS solution are not yet known as the COTS software and system integrator (SI) vendors have not yet been selected. Estimates are provided in Section 8 – Economic Analysis Worksheets. More detailed and complete information will be provided in the SPR.

5.1.10 Training Plan

The SI team will conduct user training as well as provide training for the system administrator(s). Depending on the selected SI vendor's training methodology, it is likely that a "train the trainer" approach will be utilized – initial end user training will be provided by the vendor with subsequent training provided by the state. An extensive and repeatable training process will be necessary to realize the full potential of the BIS solution and help ensure the value of the solution is not diminished as the solution is rolled-out statewide. The detailed makeup of the training will be determined by the software solution. Estimated costs are included in the Economic Analysis Worksheets (EAW) for the proposed solution.

5.1.11 Ongoing Maintenance

The organization and associated level of technical and operational support will depend on the proposed solution. While ongoing maintenance will be a combination of state and contracted staff, specific responsibilities have not been determined. However, it is anticipated that state staff will perform some technical and operational support for maintenance and new release upgrades of the system. Product warranty and technical support contracts, for both hardware and software, will be utilized as appropriate to ensure the vendor provides adequate ongoing maintenance and support to include, but not be limited to:

- Product warranty and technical support contract for any related hardware and software not managed through TDC.
- Commercial-off-the-shelf (COTS) software warranty and technical support contract.
- Maintenance agreements to ensure that the product stays current, provide any necessary upgrades and correct any defects and deficiencies.

In addition to performance of various technical and operational support for maintenance and new release upgrades, it is anticipated that Finance will also provide an operational help desk to update tables, codes, and values that support daily usage of the BIS solution. Help desk activities will also include support for system questions/issues and the administration of user IDs and passwords for internal and external system users, including Finance, departments, Legislative staff, LAO, and Legislative Counsel.

5.1.12 Information Security and Confidentiality

The approach to information security for this effort will be consistent with the state's information security policy, including conformance with the Secretary of State's regulations regarding the use of digital signatures, and comply with the state's security and confidentiality protocols. The vendor will implement a solution that incorporates system security and data integrity as part of the overall solution and technical architecture.

System security is integral to gaining user acceptance by departments and other external stakeholders. Security will limit access to data based on user role and the specific phase of the budget process. These roles are critical to ensuring that data or portions of data that are finalized can not be changed by an unauthorized user. In addition, measures will be taken to ensure access to the system is only provided to authorize personnel. User ID and password

authentication, as well as the ability to control access to confidential information will be implemented through techniques such as:

- Use of private keys
- Digital signatures or other authorizing identification
- Forced log-off of inactive users
- Termination of a user's session after unsuccessful logon attempts
- Locking of a user's master record after repeated failed logon attempts
- Expiration of passwords after a specified period
- Required password changes at regular intervals
- Minimum password lengths
- Prohibited use of certain passwords, such as using the same character string for the user log on and password.

Any information or reports provided to external entities will be generated or produced in such a manner as to be compliant with state security and confidentiality standards and guidelines.

Additionally, the vendor will be required to enforce security, confidentiality, and data integrity standards in any interfaces to/from external systems. The vendor will be required to ensure that the interfaces:

- Do not provide a "back door" for inappropriate processing
- Protect the files in the operating system

Since the specific measures which must be taken relative to the above requirements will depend on the product selected, specific techniques for ensuring these objectives are met cannot be identified at this time. Specific techniques will be addressed in the detailed design phase of the project.

5.1.13 Impact on End Users

The proposed system will have a broad impact on budget staff throughout the state, as well as Legislative staff, LAO, and Legislative Counsel. Virtually every department in the state participates in the budget development and administration process. The departmental budget staff involved in developing budget estimates and submitting the proposed budget to Finance must learn the features and processes of the proposed system and implement related changes in business processes. Financial staff likewise must learn features and processes of the proposed system and implement related changes in business processes. Since the proposed system will utilize modern technology to transform an antiquated and essentially manual process, there will be a substantial transition and "learning" curve associated with the new system. In addition, the transition from a paper-based system to an automated process will result in significant changes for external reviewers of budget data. As a result, a comprehensive change leadership, education, and training program will be required.

Critical components of the change leadership program will include a comprehensive communication strategy and user involvement through a Business Practices Advisory Committee. The objective of both of these components is to enlist support and ownership of the project among the user community:

- Enroll individuals as stakeholders of the project and build a foundation for effective participation by promoting ownership of the project's goals and objectives.
- Engage budget officers from selected departments and agencies to participate in the Business Practices Advisory Committee and function as key vehicle to push the communications themes out to users.
- Engage accounting officers from selected departments and agencies, as well as budget officers from selected departments, the State Controller, CalSTARS staff and business stakeholders, to develop a foundation or system architecture with a common chart of accounts for budgeting that can be later expanded and utilized for accounting functions.

Change management and communication plans will be developed upon project approval, prior to the commencement of the project. These plans will be revised throughout the project lifecycle. In addition, a specific training plan will be developed after the SI vendor is chosen, prior to project implementation.

5.1.14 Impact on Existing System

The solution will replace existing budget development and administrative applications and systems.

5.1.15 Consistency with Overall Strategies

The BIS solution will support the state's vision to improve its financial and budget systems: *"Implement common business applications and systems to improve efficiency and cost-effectiveness."*[7] This goal is also consistent with the recent California Performance Review: *"Replace outmoded fiscal and budgeting systems and build better systems. This requires an investment, but our separate financial systems must be tied together to allow accurate, comprehensive and timely statewide financial information and reporting."* [8]

5.1.16 Impact on Current Infrastructure

Since the solution has not been selected, detailed information cannot be provided at this time, information specific to the selection will be provided in the SPR. The selected solution will need to be consistent with the state's overall strategies and should include:

- Open architecture designed to meet industry standards
- Support for open interfaces for communicating with other systems

[7] California State Information Technology Strategic Plan, November 2004
[8] California Performance Review, 2004

5.1.17 Impact on Data Center(s)

It is anticipated that the selected solution will make use of the facilities and services offered by the state's data center to ensure cost-effectiveness, reliability, and security.

5.1.18 Data Center Consolidation

The selected system will comply with the state's requirement that all new systems, except those used for LAN and office automation functions will be sited at a consolidated data center.

5.1.19 Backup and Operational Recovery

The selected solution will be consistent with the state's backup and operational recovery systems, processes and policies. Specific details will be provided upon the selection of specific solution and vendor.

5.1.20 Public Access

It is anticipated that public access will be restricted to viewing published reports similar to the eBudget solution recently implemented. BIS will include enhanced search and help features to allow easier access to this public information. As described in Section 5.1.12 – Security and Confidentiality, any information or reports provided to external entities will be generated or produced in such a manner as to be compliant with state security and confidentiality standards and guidelines.

5.1.21 Costs and Benefits

The proposed solution has an estimated one-time cost of $137.9 million over seven years. This estimate includes the redirection of staff resources equivalent to $13 million. All one-time and ongoing costs for the proposed solution are detailed in Section 8 – Economic Analysis Worksheets.

Benefits

The proposed solution resolves the business problems outlined in this FSR. In addition, the following qualitative benefits are worth noting:

- Consistent with the state's strategic direction to implement enterprise-wide business applications.
- Leverages the use of standard processes and a single system for statewide financial functions beginning with the budget development and administration/management processes.
- Based on the use of statewide standard processes, the time required when transitioning to another department would be reduced, allowing the focus to be on specific department budgeting and not the processes.
- Eliminates risks due to failing and unsupported technology.

- Reduces the number of systems and hardware platforms related to Finance's disparate budget systems.
- Eliminates inefficient and error prone data entry and reconciliation processes.
- Supports one-time entry of information at the point where it is created – devolves data entry, to a large extent, to departments for electronic submittal to Finance.
- Reduces the reliance on hardcopy and paper-based documentation and minimizes the need to produce multiple copies of paper documents.
- Increases capacity to communicate to internal and external stakeholders involved in the budget development process through on-line review, approval, and routing capabilities.
- Reduces the need for paper and manual work necessary to package and forward budget information, i.e., finance letters, veto messages, and budget bill language sheets, to external stakeholders.
- Reduces redundant descriptive and analytical writing for decisions documents, reports, and publications.
- Provides an ongoing historical repository of accurate, up-to-date and consistent budget data to facilitate budget related activities and to provide improved capability to forecast and model budget scenarios for multiple years
- Improve analysis of the myriad of budget change requests, which is likely to result in empirical savings/cost avoidance to the state as a result of better and timelier data as the basis of decisions.
- Improve ability of the enacted budget to guide development of departmental operating budgets by preserving more information and improving controls.
- Improve quality of operating budgets and related management controls to avoid over expenditures and erratic spending patterns.
- Potential cost avoidance as a result of the redirection of staff resources towards program familiarization and improved program management.
- Improve ability to use current year and past year accounting information in budget development.
- Enhance ability to incorporate new information into the budget process in the future, such as performance information.
- Improve understandability of the budget to the public, Legislature and department management (especially those responsible for specific program expenditures).

5.1.22 Sources of Funding

The funding source for the first two years will be General Fund, covering the period of chart of accounts and procurement activities. Thereafter, the funding distribution is an estimate based on the proportion of the respective funds (General, Special and Federal) to the total budget.

The actual project costs, including costs associated with the product, system integrator, state staff and support dollars, as well as the final schedule, will not be known until after the completion of project procurement activities. Finance's Performance Review Unit is exploring various funding options to ensure that costs are appropriately distributed to all departments and various non-General Fund sources. Based on this information, the BIS project team will work with other Finance staff and DGS to evaluate potential financing alternatives to select the most appropriate approach.

The SPR will detail the funding approach for the project.

5.2 Rationale for the Selection

The proposed alternative meets the business objectives and the functional and technical requirements presented in this document. This alternative will help the state better achieve its fiduciary requirements.

5.3 Other Alternatives Considered

5.3.1 Rejected Alternative #1 – Implement a Stand-alone Budget System

Description

In this alternative, the state would implement a budget system, independent of a statewide initiative for an enterprise-wide solution. Under this alternative, the budget solution would not be available for other departments and agencies to use as their internal budget development and administrative solution. Additionally, under this alternative, the state's accounting system remains unchanged and automated interfaces between the stand-alone budget solution and the state's current accounting system would need to be built.

Costs

Preliminary one-time and ongoing estimates the cost for this alternative are approximately $46.5 million over seven years.

Benefits

- Reduces the number of systems and hardware platforms related to Finance's disparate budget systems.
- Eliminates risks due to failing and unsupported technology.
- Reduces the reliance on hardcopy and paper-based documentation and minimizes the need to produce multiple copies of paper documents.
- Increases capacity to communicate to internal and external stakeholders involved in the budget development process through on-line review, approval, and routing capabilities.

- Provides an ongoing historical repository of accurate, up-to-date and consistent budget data to facilitate budget related activities and to provide improved capability to forecast and model budget scenarios.

Advantages

- Lower in scope and complexity than the selected alternative, which potentially could result in lower overall costs and project risks
  - ✓ Lower software product costs
  - ✓ Potential for lower operating costs
  - ✓ Reduced implementation and training needs
  - ✓ Requires less change to the business processes of state departments

Disadvantages

- Not consistent with the state's strategic direction and statewide initiatives to implement enterprise-wide business applications.
- Based on market research conducted by Finance, there is only one system that would partially address the business requirements for Finance.
- Allows the many stand-alone agency budget systems – and their associated costs – to remain in place. The alternative does not reduce the myriad number of hardware platforms, software licenses, and associated costs of the current environment, where many departments are using their own unique "homegrown" systems.
- Potentially costly changes to the budget system would be required in the future if state elects to implement additional components of a statewide enterprise resource planning solution (general ledger, accounts payable, and procurement) after the budget system is implemented.

5.3.2 Rejected Alternative #2 – Continue to Maintain Legacy Systems

Description

This alternative is to maintain the status quo by continuing the use of current systems and processes. This alternative results in inaction related to modernizing and updating the state's outdated legacy budget systems. As described in Section 3.2 Business Objectives, these systems were originally deployed in mid 1970's, are not flexible, do not meet the needs of the state's current budget development processes and were developed individually to support different parts of the state's budget process without consideration for overall process or integration across applications.

Extending the operational life the Finance's existing budget systems increases the probability of a major failure. Risk factors include a dependency on technology that is losing market share in

the industry, loss of technical and application expertise, and the continued difficulty of maintaining multiple, disparate systems in an era of fiscal scrutiny.

Advantages

- Low cost alternative at this time, however costs may increase as systems and processes fail.
- Delays procurement activities
- The state will forego the implementation, business process, and change management challenges inherent in a larger statewide project.
- Significant statewide training effort will not be necessary.

Disadvantages

- Not consistent with the state's strategic direction and statewide initiatives to implement enterprise-wide business applications.
- Continues the state's risks related to maintaining outdated and ineffective automated systems.
- Does not meet the state's long term objectives.
- Does not address the difficulties of providing needed functionality through existing systems.
- Does not address the issues related to inefficient use of resources as legacy systems get older, increasingly difficult to maintain, and less able to meet changing business requirements.
- Continues limitations of available budget data, manual processes/workarounds will continue to be necessary to support various information needs. Therefore, minimizing the ability to perform detailed analysis.
- Ongoing lack of historical data to support decision making.

6.0 PROJECT MANAGEMENT PLAN

Finance and the State of California recognizes the importance of using industry best practices for project management. This section describes how this project will be managed.

6.1 Project Manager Qualifications

The Project Manager for this project has not yet been identified. Finance will select a highly qualified project manager to manage this project. The Project Manager shall possess the ability to apply knowledge, skills, tools, and techniques necessary to successfully complete this project. He/she must possess the following knowledge, education, and experience:

- Experience successfully managing two or more projects of similar scope and complexity.
- Experienced in managing large information technology (IT)-related projects, including IT project management and application development methodologies.
- Already understands or demonstrates the ability to quickly learn the state's budget processes and the project's objectives.
- Understands the state's procurement processes.
- Skilled in communicating, both written and oral, goals, objectives and status with management, stakeholders, and staff.
- Skilled in resolving conflicts with stakeholders, vendors, and program staff.
- Experienced in working with vendors to accomplish IT and business process change goals.

6.2 Project Management Methodology

The project will employ practices embodied in the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK®) and the Software Engineering Body of Knowledge.

This project will also employ the OTROS's Information Technology Project Oversight Framework to identify the level of criticality and required oversight, as documented in the SAM and SIMM.

It is anticipated that the procurement will require the vendors to propose a specific project management methodology. The methodology will be evaluated to ensure that it is consistent with the objectives identified above. The selected methodology will be detailed in the subsequent SPR.

6.3 Project Organization

While the details of the project organization will be unknown until the product and system integrator vendors are selected, the following presents the recommended project team structure for the BIS solution project. The project structure consists of three tiers:

1. **Executive –** As indicated in the exhibit, Finance will have primary responsibility for overall project management and coordination. As such, the following two project executive roles will be filled by senior management within Finance:
   - ✓ Project Sponsor
   - ✓ Project Director

   Other components of the executive tier include the following:
   - ✓ An Executive Council composed of Finance, State Controller's Office and State Treasurer's Office executives, and Cabinet representatives to provide statewide support and leadership for the project, as well as provide a forum for resolving issues that have statewide impact.
   - ✓ A Budget Practices Council composed of Finance senior managers (Program Budget Managers, the Chief Information Officer, OTROS Chief and the CalSTARS/FSCU Chief) to provide guidance to the project as stewards of the State's budget process.

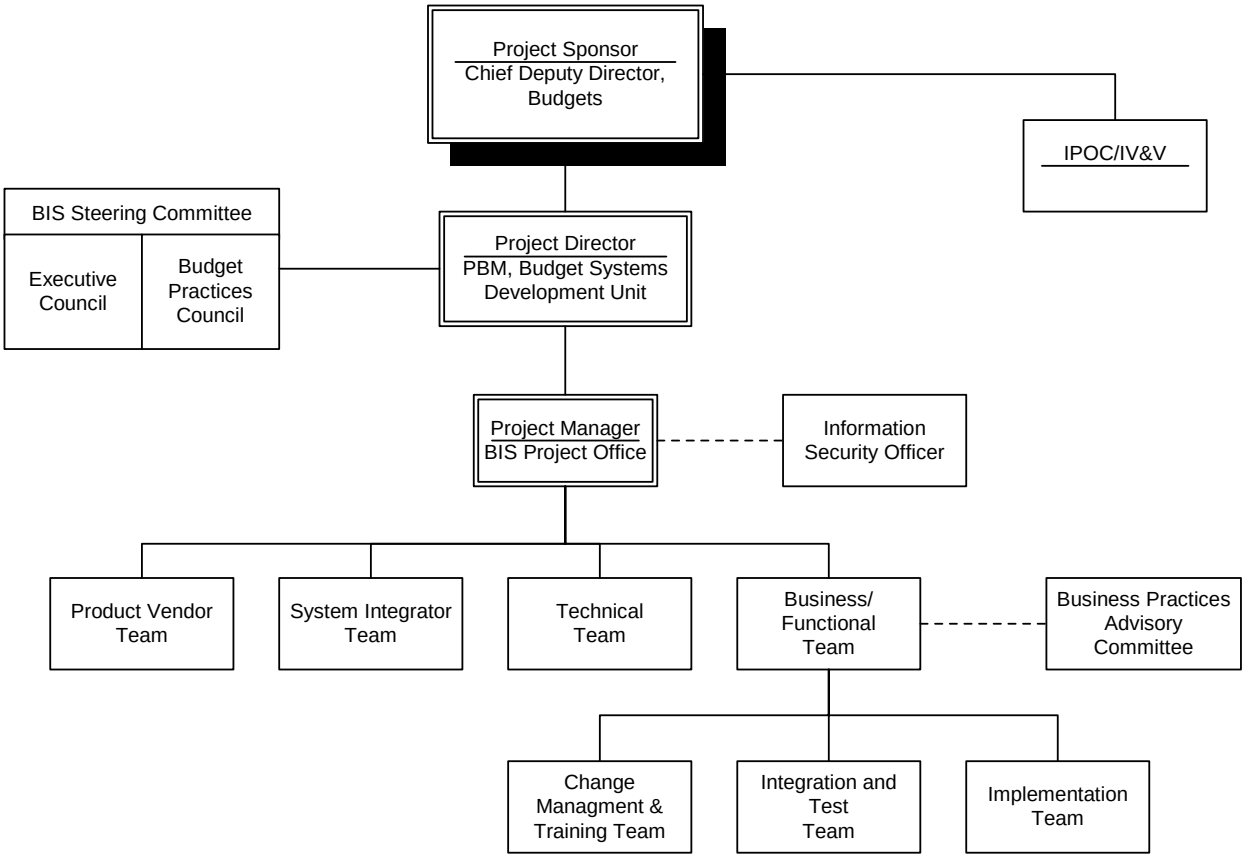
   The Executive Council and the Budget Practices Council together will make up the BIS Steering Committee.

   The Project Sponsor will retain ultimate authority over BIS, resolving issue conflicts and to ensure that Finance continues to meet statutory requirements.

2. **Project Office –** Finance will implement a BIS Project Office, directed by the BIS Project Director, and managed by the BIS Project Manager. The BIS Project Office will be responsible for the day-to-day coordination and management of the BIS project, its staff resources, teams, activities, facilities, communication, etc., using structured project management methodologies. As indicated in the exhibit, the BIS Project Office will consist of a variety of teams. The core staff of the BIS Project Office will include staff from the Budget Systems Development Unit.

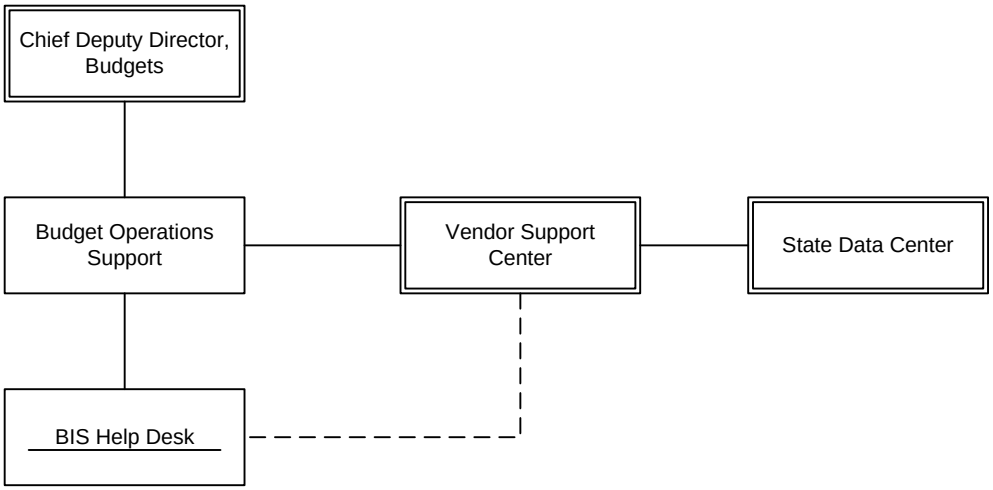
3. **Project –** The various teams required for BIS could include the following:
   - ✓ Vendor staff and management (product and system integrator).
   - ✓ Subject matter experts (SMEs) from within Finance and departments with State budget process and program knowledge and expertise. These SMEs will be assigned to the Budget System Development Unit and the BIS Project Office.
   - ✓ Business Practices Advisory Committee composed of SMEs, representing Finance, departments and agencies across the state with knowledge and expertise in program specialty areas and departmental budget processes.
   - ✓ Information Services staff will participate in various teams to assist with the evaluation and assessment of technical aspects of the project, including project testing.

The following details the anticipated project structure.



The following details the anticipated post implementation structure.

BIS Post Implementation Organization



6.4 Project Priorities

The three variables that project managers can change on a project to maintain project performance are resources, schedule, and scope. These three factors are interrelated – a change in one impacts the other as well.

Table 6-2. Trade-off Matrix

	Resources	Schedule	Scope
CONSTRAINED (Cannot change)			X
ACCEPTED (Could be changed)		X	
IMPROVED (Can Be Changed)	X		

- Finance has determined that project **resources** can be **improved** in response to specific issues or impacts. Additional resources may be available in-house, or through contracting with vendors.
- The project **schedule** is classified as **accepted**; Finance is willing to change the schedule if necessary to preserve scope. Changes in schedule, however, must not conflict with state mandated timeframes for producing the annual budget.
- The project **scope** is **constrained.** Finance has determined that project scope cannot be changed if core project objectives are to be met. However, certain elements of the project scope can be shifted if necessary to ensure that state mandated timeframes for producing the annual budget are met.

6.5 Project Plan

6.5.1 Project Scope

The scope of the BIS Project is to implement a commercial off the shelf (COTS) Budget Information System to meet Finance's budget development and administrative needs as well as the budget development and administration needs of departments and agencies. The solution will replace Finance's aging budgeting systems and result in a comprehensive budget application supporting the state's fiscal and policy decision processes.

6.5.2 Assumptions, Dependencies, and Constraints

The following sets forth the assumptions on which the project is based, the external events the project is dependent upon, and the constraints under which the project is to be conducted.

- Assumptions include the following:
  - ✓ Project funding will be available throughout the project lifecycle.
  - ✓ Higher priority projects will not impact the schedule or resource requirements.
  - ✓ Vendor resources (product and system integrator) will be utilized during implementation and operations phases.
  - ✓ The project will adhere to a formal project management methodology and project schedule. Proactive risk, issue and change management strategies will be employed.
  - ✓ Project implementation and deployment activities will not negatively impact the timely development and presentation of the Governor's Budget and May Revisions.
- Dependencies include the following:
  - ✓ Appropriate state program and technical resources are available and will be allocated to the BIS Project Office, and to any ancillary teams related to this effort.
  - ✓ Supporting contracts and procurements will be complete on schedule.
  - ✓ A BCP(s) will be approved to provide spending authority.
  - ✓ Stakeholders reach agreement on a statewide coding structure (chart of accounts).
  - ✓ A rigorous change management program is developed and in place to manage resistance to change and to encourage state departments, agencies and other stakeholders to participate and 'adopt' the new system and processes.
  - ✓ Agencies and departments will participate and provide information as required to successfully develop and implement system interfaces and data exchange processes.
- Constraints include the following:

- ✓ Solution will operate in the context of the state's direction for an enterprise-wide solution.
- ✓ The BIS solution will make use of the state's computing resources, technical infrastructure and data center where appropriate.

Additional assumptions associated with costs are provided in Section 8 of this report.

6.5.3 Project Phasing

It is anticipated that the BIS solution will be implemented in a phased approach as described below. The phasing below assumes that the BIS Project Office is in place and that the project management structure is in place including the Project Manager and other support staff as well as the project management methodologies, procedures and standards.

Project Phases

Project Phase	Phase Deliverables
Initial Planning (Chart of Accounts and Standards)	■ Convene Executive Council ■ Convene Business Practices Advisory Council ■ Develop a statewide chart of accounts and standards ■ Develop a security plan
Procurement	■ Software/Product ■ RFP Requirements Validation and gap analysis ■ System Integrator services
Project Initiation, Planning & Design	■ Reaffirm the project charter and communication plan ■ Develop a dispute resolution plan ■ Project Plan, schedule and resource assignments ■ Business process analysis ■ Change management program development ■ Requirements specification and decomposition
Implementation	■ Site preparation and configuration ■ Solution build, configuration, customization and installation ■ Configuration management and change control processes ■ Testing and training plan development ■ Data conversion planning and execution ■ Interface development ■ Documentation development
Testing and User Acceptance	■ Unit, integration, system and performance testing ■ User acceptance testing ■ Change management program
Release and Deploy Solution – Finance and selected departments	■ Implementation event schedule ■ Release management processes established ■ Change management program ■ Training – technical, administrator and user ■ Production deployed to Finance
Release and Deploy Solution – Statewide	■ Implementation event and deployment schedule ■ Change management program ■ Training – technical, administrator and user ■ Production deployed to departments and agencies in a staggered process
Project Closeout	■ Final system documentation ■ Conduct an assessment of process changes ■ Maintenance and operations structure in place

Project Phase	Phase Deliverables
	■ PIER Report

6.6 Roles and Responsibilities

The following are the project team roles and responsibilities of the Project. Please note the following:

- Finance will have primary responsibility for overall project management and coordination.
- There are several other stakeholder groups that are directly involved in implementation of the BIS solution. These include not only Finance, but the State Controller's Office, the legislative branch (Legislature, LAO, and Legislative Counsel), state departments and agencies, as well as the product and system integrator vendors. Each of these stakeholders is represented in the organization chart presented in Section 6.3 – Project Organization. Roles are described below.
- It is anticipated that members of the BIS Project Office will include Finance staff that provide subject matter expertise in developing and administering the Governor's Budget, as well as budget staff representatives from departments and agencies that provide subject matter expertise in departmental budget development and administration. These staff will be assigned to the BIS Project Office.
- A team member may have multiple project responsibilities.

Project Team Role	Responsibility
	Executive
Project Sponsor – Finance Chief Deputy	■ Provide sponsorship and support for BIS project from Executive Management Team. ■ Chair the Executive Council and the Change Control Board. ■ Assign authority for the BIS Project to the Project Director. ■ Champions statewide support for the BIS project. ■ Liaison to the Legislature, State CIO, and Governor's Office. ■ Ensure project funding and resources. ■ Establish project goals and priorities. ■ Provide highest level decision making authority. ■ Approve any significant changes to project scope, budget or schedule.
Executive Council	■ Provide statewide leadership and support for project. ■ Participate as a member of the Change Control Board. ■ Publicly support the project by communicating the vision and working to reduce barriers and mitigating risk. ■ Allocate departmental and agency resources. ■ Provide issue resolution across agencies for issues that have statewide impact. ■ Provide advice regarding consistency with statewide strategies, direction and policies.
Project Director – Program Budget Manager, Budget System Development Unit	■ Own and promote the vision for the BIS Project. ■ Oversee the delivery of the BIS solution. ■ Chair Budget Practices Council. ■ Participate as a member of the Executive Council. ■ Participate as a member of the Change Control Board. ■ Provide Finance Executive oversight for the BIS project.

Project Team Role	Responsibility
	■ Serve as a project spokesperson responsible for communicating project strategy, benefits, direction, status, and recommendations to stakeholders, public, legislature, and the Executive Council. ■ Provide final decision making on decisions that could not or should not be made at lower levels. ■ Resolve critical issues which could not or should not be resolved at lower levels. ■ Approve all the BIS project deliverables. ■ Approve risk mitigation strategy and action
Budget Practices Council	■ Own and promote the vision for the BIS Project. ■ Serve as a project spokesperson responsible for communicating project strategy, benefits, direction, status, and recommendations to stakeholders, public, legislature, and the Executive Council. ■ Provide Finance Executive input to the BIS project. ■ Participate as a member of the Change Control Board. ■ Assist with prioritizing and resolving business priorities for the DOF BIS project team. ■ Assist in resolving critical issues which could not or should not be resolved at lower levels.
Project Office	
BIS Project Office	■ Provides a centralized structure to coordinate and manage the BIS project, its staff resources, teams, activities, facilities, communication, outreach, etc using structured project management methodologies. ■ Designate participants of the Change Control Board.
BIS Project Manager	■ Directs the BIS Project Office. ■ Reports to the BIS Project Director and the Budget Practices Council. ■ Member of BIS Business Practices Advisory Committee. ■ Participate in Budget Practices Council meetings. ■ Ensure overall project process and deliverable quality – responsible for the delivery of the BIS solution. ■ Ensure the solution implemented addresses the project's and associated program objectives. ■ Ensure quality control and quality assurance are performed in accordance with the quality plan. ■ Serve as central point of communication and coordination for the project. ■ Ensure timely communication with the Project Director, the Executive Council, and other stakeholders. ■ Establish the IT and project management policies, planning, processes, coordination, tracking, reporting and communications requirements for the BIS project. ■ Drive and maintain the overall project schedule. ■ Manage project risk. ■ Identify project risks and issues, determine which should be elevated and facilitate their resolution. ■ Review and recommend approval of risk mitigation strategy and action. ■ Assist in obtaining and managing resources assigned to the BIS Project. ■ Direct the activities of State and vendor personnel assigned to the project. ■ Review and recommend approval of key project deliverables. ■ Ensure that project processes and deliverables are consistent with Finance and State project management, technical standards, policies, strategies and architecture. ■ Work with vendor teams to correct deliverable deficiencies. ■ Facilitate interactions with the State Data Center. ■ Facilitate security matters with the State and departmental Information Security Officer.
Business Practices Advisory	■ Assist with prioritizing and resolving business priorities related to the BIS project, that impact departments and agencies. ■ Serve as a project spokesperson responsible for communicating project

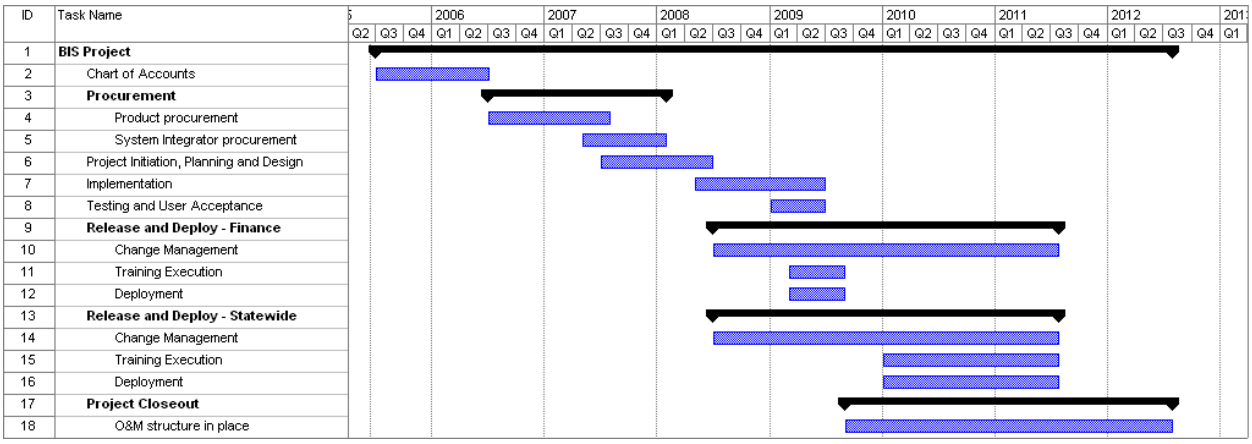
Project Team Role	Responsibility
Committee	strategy, benefits, direction, status, and recommendations to departmental stakeholders, public, and legislature. ■ Participate as a member of the Change Control Board. ■ Own and promote departmental vision for the BIS Project. ■ Represent departmental interest during the delivery of the BIS solution including: ✓ Identifying, coordinating and allocating department resources to the project for testing, training, implementation activities, etc. ✓ Identifying issues as they arise. ✓ Assisting with critical problem solving. ✓ Providing input on workflows, business rule definition, screen design, and procedures, etc.
Project	
Change Management and Training Team	■ Establish and manage related components of the project schedule in coordination with the BIS Project Manager. ■ Work with BIS stakeholders to ensure communication between end-users, stakeholders and the project. ■ Design and execute the communication plan. ■ Work with the BIS Steering Committee to develop and implement a change management program. ■ Assess change readiness. ■ Monitor change impact and develop/execute mitigation strategies. ■ Plan, track, and approve all communication methods and communication vehicles related to BIS Project. ■ Design and develop the BIS training plan and strategy. ■ Execute the training strategy statewide. ■ Monitor the training program and develop/execute mitigation strategies. ■ Coordinate the resolution of policy, standard and procedure issues across the state, related to the implementation of the BIS solution. ■ Monitor the impact of policy, standard and procedure changes and develop/execute mitigation strategies. ■ Provide input into project risk and issue efforts, and resolve as assigned.
Product Vendor Team	■ Establish and manage related components of the project schedule in coordination with the BIS Project Manager. ■ Participate in Budget Practices Council meetings and BIS Business Practices Advisory Committee meetings. ■ Provide technical architecture recommendations and direction ■ Guide definition of technical requirements and design. ■ Participate in requirements validation, requirements decomposition and gap analysis. ■ Provide technical recommendations regarding data and data conversion. ■ Provide technical input into implementation activities. ■ Provide input into project risk and issue efforts, and resolve as assigned.
System Integrator Team	■ Establish and manage related components of the project schedule in coordination with the BIS Project Manager. ■ Assist with project organization. ■ Participate in Budget Practices Council meetings and Business Practices Advisory Committee meetings. ■ Validate the requirements, and complete requirements decomposition and gap analysis. ■ Lead development of the system and acceptance Test Plan. ■ Conduct unit, integration and system testing, documenting the results. ■ Create and manage configuration control and change control procedures. ■ Plan and lead user training and knowledge transfer activities. ■ Establish implementation and roll out, “go-live” strategy. ■ Design and develop custom programs. ■ Lead transition to the post-implementation support organization. ■ Provide input into project risk and issue efforts, and resolve as assigned.

Project Team Role	Responsibility
Technical Team	■ Assist with project planning and communication activities. ■ Provide status to project managers. ■ Provide input into project risk and issue efforts, and resolve as assigned. ■ Assist with validating requirements, and completing requirements decomposition and gap analysis. ■ Conduct unit, integration and system testing, documenting the results. ■ Execute appropriate implementation and roll out, "go-live" strategies. ■ Design and develop custom programs. ■ Participate in transition to the post-implementation support organization. ■ Ensure timely completion of team activities.
Business Functional Team	■ Assist with project planning and communication activities. ■ Provide status to project managers. ■ Provide input into project risk and issue efforts, and resolve as assigned. ■ Assist with validating requirements, and completing requirements decomposition and gap analysis. ■ Conduct integration, system testing, and user acceptance testing, documenting the results. ■ Execute appropriate implementation and roll out, "go-live" strategies. ■ Provide input into the design and development of custom programs. ■ Participate in transition to the post-implementation support organization. ■ Ensure timely completion of team activities. ■ Participate in user training and knowledge transfer activities. ■ Participate in the review of key project deliverables.
Integration and Test Team	■ Assist with project planning and communication activities. ■ Provide status to project managers. ■ Provide input into project risk and issue efforts, and resolve as assigned. ■ Assist with validating requirements, and completing requirements decomposition and gap analysis. ■ Conduct integration and system testing, documenting the results. ■ Execute appropriate implementation and roll out, "go-live" strategies. ■ Design and develop related custom programs. ■ Participate in transition to the post-implementation support organization. ■ Ensure timely completion of team activities. ■ Participate in user training and knowledge transfer activities.
Implementation Team	■ Assist with project planning and communication activities. ■ Provide status to project managers. ■ Provide input into project risk and issue efforts, and resolve as assigned. ■ Assist with validating requirements, and completing requirements decomposition and gap analysis. ■ Lead implementation planning activities. ■ Execute appropriate implementation and roll out, "go-live" strategies. ■ Provide input to user training and knowledge transfer activities. ■ Participate in transition to the post-implementation support organization. ■ Ensure timely completion of team activities.
Project Oversight	■ Meet the requirements of the Department of Finance's Information Technology Project Oversight Framework (Framework). ■ Help detect risks and variations that may occur during the project. ■ Recommend corrective action
Project Quality Assurance	■ Support and review project process planning to help ensure quality is inherent in how the project is executed. ■ Assess project process performance to identify ways to overcome problem areas and improve project performance. ■ Assess project artifacts to identify and prevent defects in dependent work products. ■ Review project deliverables to ensure consistency with Finance project management standards. ■ Provide input to project team pertaining to the quality of project deliverables.

Project Team Role	Responsibility
	■ Participate in and provide guidance to activities regarding project quality. ■ Verify project processes for adherence to documented project plans. ■ Verify project artifacts for completeness and ability to meet dependent project processes and work products.
Independent Project Oversight Contractor	■ Executing the State's Independent Project Oversight Framework ■ Reporting to Finance leadership the risks and overall health associated with the project ■ Ensuring that project deliverables are satisfied
IV & V Contractor	The Independent Verification & Validation Contractor will: ■ Verify that the project approach and deliverables will produce the desired outcome. ■ Validate that the system developed meets the accepted requirements by performing independent tests on the developed system and reporting the results.

6.7 Project Management Schedule

The following Gantt chart outlines the schedule for each of the major milestones associated with this project. This schedule will be refined for the subsequent SPR.



In addition to the Gantt chart above, the following details additional activities associated with these major mile stones.

Project Phase	Phase Deliverables	Project Interval
Initial Planning (Chart of Accounts and Standards)	■ Convene Executive Council ■ Convene Business Practices Advisory Committee ■ Develop a statewide chart of accounts and standards ■ Develop a security plan	July 05 – June 06
Procurement	■ Software/Product ■ RFP requirements validation and gap analysis ■ System Integrator services	July 06 – Jan 08

Project Initiation, Planning & Design	■ Project plan, schedule and resource assignments ■ Business process analysis ■ Change management program development ■ Requirements specification and decomposition	July 07 – June 08
Implementation	■ Site preparation and configuration ■ Solution build, configuration, customization and installation ■ Configuration management and change control processes ■ Testing and training plan development ■ Data conversion planning and execution ■ Interface development ■ Documentation development	May 08 – June 09
Testing and User Acceptance	■ Unit, integration, system and performance testing ■ User acceptance testing ■ Change management program	Jan 09 – June 09
Release and Deploy Solution – Finance and selected departments	■ Implementation event schedule ■ Release management processes established ■ Change management program ■ Training – technical, administrator and user ■ Production deployed to Finance	March 09 – Aug 09
Release and Deploy Solution – Statewide	■ Implementation event and deployment schedule ■ Change management program ■ Training – technical, administrator and user ■ Production deployed to departments and agencies in a staggered process	Jan 10 – July 11
Project Closeout	■ Final system documentation ■ Conduct an assessment of process changes ■ Maintenance and operations structure in place ■ PIER Report	Sept 09 – July 12

6.8 Project Monitoring

The project will be monitored in accordance with state approved policies and documented in the State Administrative Manual (SAM) and the State Information Management Manual (SIMM). The project will also employ practices embodied in the Project Management Institute's (PMI) Project Management Body of Knowledge (PMBOK®) and the Software Engineering Body of Knowledge.

The state's Project Manager, with the assistance of the BIS Project Office, will manage the day-to-day activities of the BIS Project. The BIS Project Office will provide oversight focused on project management best practices and coordination of information technology initiatives. The Budget Practices Council will provide leadership and guidance with a state executive perspective, focused on scope, schedule and resource management.

The project's system integrator vendor will assign a project manager to monitor each project status area and provide documented and oral status reports to the BIS Project Manager in accordance with state and BIS project policies.

Monitoring of the project will be performed through:

- Documented status reports
- Status meetings with the product and system integrator vendor
- Project performance reports that document project metrics, variances and trends
- Change control reports that document requested and accepted changes to the project scope

Frequency of reporting via each of these methods will be, at a minimum, monthly.

Project monitoring will also be performed by the Independent Project Oversight Consultant (IPOC) and Independent Verification & Validation (IV&V) vendor, on an ongoing basis, and reported to the BIS Project Sponsor and Budget Practices Council as part of the monthly status reporting process. This will include:

- The use of information to detect, analyze and eliminate potential causes of nonconformities
- Determining the steps needed to eliminate the potential causes of nonconformities
- Initiating the preventative action and applying controls to ensure that it is effective
- Ensuring that relevant information on actions taken, including changes to procedures, is submitted for management review

6.9 Project Quality

Project quality will be assured using the state's established quality control procedures as documented in the SAM/SIMM. The project management plan includes separations of duties, acceptance testing, version control tools, a requirements traceability matrix, and customer walkthroughs. The Project Management vendor will be required to develop quality standards and use industry standard project management methods.

The project will also utilize traceability to track requirements from vendor selection through implementation of the BIS solution. Traceability is a key methodology for ensuring consistent compliance with the requirements, and is used to document approved changes in scope and requirements.

6.10 Change Management

Change management will be performed in accordance with the software implementation best practices and consistent with state requirements. Changes will be carefully managed because they can adversely impact cost, schedule and project performance. Changes can also disrupt schedules, delay target dates and unbalance resources. Change management for the BIS project will include the following types of change:

- Scope changes

- Schedule changes
- Cost changes
- Quality changes
- Risk changes

The BIS project will perform the following activities relative to change management:

- Establishing a change control plan/system to evaluate all needs and requests for change.
- Chartering of a Change Control Board (CCB) (chaired by the Project Sponsor and made up of the Project Director and selected representatives of the Executive Council, Budget Practices Council, BIS Project Office, and Business Practices Advisory Committee) as appropriate to be a change decision-making body with the authority to approve scope, schedule and budget changes to BIS.
- Establishing a Configuration Management Plan to identify and document changes to the physical characteristics of project systems and work products.
- Developing a Communication Plan for communicating change to users.
- Adjusting the Project Management Plan as necessary to accommodate each approved change order.
- Ensuring that the training and change management programs are closely aligned to facilitate the transition to the BIS solution.

Additionally, for the benefits of the BIS solution to be fully achieved, impacted budget staff across the state must understand what is changing and be ready, willing and able to adapt to new ways of conducting work using the BIS solution. This requires careful planning and execution of activities to manage and deploy change well in advance of BIS "go-live".

Consequently, business process transition/organizational change management must be managed at every stage of the BIS project and must encompass not only the technical changes implied by BIS but also process changes and the accompanying impacts to budget offices across the state. Change management activities must focus on understanding how new processes and organizational change result from the implementation of BIS. Change management involves:

- Plans to communicate the changes
- Sponsoring state personnel who will assist in communicating the benefits of the changes
- Identifying risks associated with the changes
- Recognizing that new roles and procedures may need to be created to support new processes.

As part of the BIS project efforts, a change management program will need to be put in place, including the following:

- Change Management Plan (organization readiness assessment) to identify issues that may impede change and resistance points. This assessment should also provide recommendations, interventions, and activities to address anticipated change.
- Develop an organization transition guide to assist the state in addressing any changes in roles and jobs. This guide is also used to plan for organization, role and job adjustments to support new business processes resulting from the implementation of BIS.
- Deploy the Project Team and the Business Practices Advisory Committee. During project initiation, and during each production release, the project team and the User Advisory Team will need to define activities to prepare and gain buy-in, commitment and involvement of the change agents and plan for intervention and transition management activities.
- Document a Communications Program - An effective Communications program will be essential to the success of the BIS project. Project related information including milestones, benefits and impacts must be disseminated to all impacted staff and targeted stakeholders.

Change management for BIS begins in July 2007 and will initially focus on re-engineering activities. It is estimated that there will be 13 dedicated staff as part of the change management and training team throughout the project (June 2011). The team will be comprised of 1 manager, 2 leads, and 10 analysts. These staff will be assigned to work with specified agencies during each project phase. During the larger statewide rollout (phase 2 and 3), the team will be assigned to provide support to approximately 80 agencies. Beginning in July 2011, the change management and training team will have 4 permanent positions (1 manager and 3 analysts), primarily to support on-going training activities.

6.11 Authorization Required

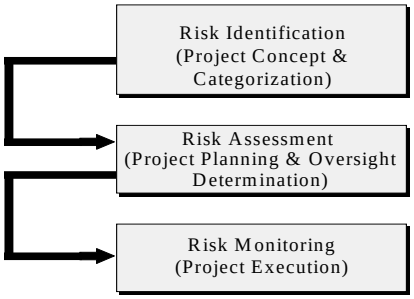
Approval of this FSR will be required from the Office of Technology Review, Oversight and Security (OTROS) and the Department of General Services as part of the standard FSR review process. Finally, a copy of this FSR will also be provided to the Legislative Analyst's Office.

7.0 Risk Management Plan

Risk is a concept that describes any factor that may potentially interfere with the successful completion of a project. Risks typically result in increased costs, diminished product quality, schedule delays, or project failure. The goal of the risk management discipline is to identify, address and attempt to manage risks. This includes identifying potentially high-risk projects early in the planning phase to ensure that these projects receive commensurate attention from internal and potential external program and information technology organizations. Risks are inherent in IT projects and this process enables program areas to formulate strategies to avert potential disasters. An effective risk management approach involves continually assessing what can go wrong and implementing strategies to prevent or manage such risks.

The risk management and control process for the BIS project was initiated during development of the FSR and it will continue throughout all the remaining phases of the project. This process consists of three basic activities that are consistent with state IT requirements and are repeated throughout all of the project phases. This relationship is graphically presented below. Notice that project categorization is the first step.

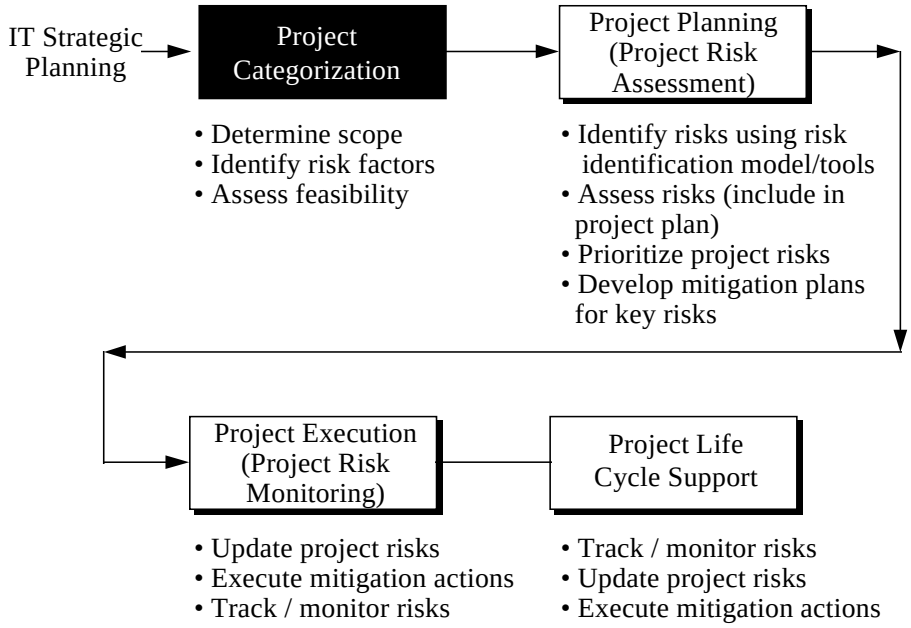
Risk Management Process



A formal Risk Management approach, including a process to manage, communicate and resolve an issue, enables clear direction to be established. This typically has the added benefit of strengthening the project team's enthusiasm and commitment to success. Preparation for the unexpected eliminates the wasted time and resources often associated with emergency reaction to problems.

The Risk Management cycle within a project is shown in the figure presented above. Notice that it includes the initial risk identification. Early risk identification, as a method to perform project categorization, is the focus of Risk Management and is performed at a high level of abstraction in the project concept phase.

Risk Management Cycle



7.1 Risk Management Worksheet

The BIS team identified several risks that may confront the project. As the project continues, these and other risks will be entered and maintained in a database for tracking, updating reporting and resolving. The subsequent SPR to be provided based on the BIS procurement efforts, will expand this risk analysis to include loss hours and risk hours. The table below describes these risks in the format prescribed by OTROS FSR guidelines. It includes the following columns:

- **Risk Category/Event:** Potential risks that may occur during a project to implement the proposed solution
- **Probability:** Likelihood of the risk occurring (0=no chance, 1=100 percent chance)
- **Preventative Measures:** Actions Finance may take to minimize the potential of the risk occurring
- **Contingency Measures:** Actions Finance may take if the risk does occur
- **Comments:** General comments regarding the risk

Risk Category/Event	Probability	Preventative Measures	Contingency Measures
Personnel			
Insufficient resources assigned to the project – assigned project team resources have other competing priorities	0.8	Establish time requirements of staff at the outset of the project, and obtain commitment from executive management to apply resources to the project. Prior to the start of the project, develop a resource transition plan. This plan should include cross-training and reassigning staff to assume the day-to-day responsibilities of resources assigned to the project.	Management to perform ongoing assessment of level of effort and adjust staff workload as necessary to ensure that necessary resources available are dedicated to the project. Implement software functionality in a phased manner.
Turnover of key state and contractor staff during project	0.8	Cross-train backup and second backup staff to fill in as needed	Assign backup staff to primary role
The project implementation and development activities require skills that Finance technical staff members do not possess.	0.95	Provide training to technical staff prior to project start up.	Hire staff members that have experience using the tools in which the new system will be developed.
Key individuals with the most knowledge of the budget process and current applications are not available or are not used.	0.7	Provide ongoing training programs for existing and newly hired staff members prior to project start up; implement regular 'informational sharing' staff meetings to educate and increase budget knowledge.	Management to assign the key resources to the project.
Staff adverse to change - Substantial impact on business processes, extensive business process and organizational (people) change	0.6	Implement change management processes throughout the project. Demonstrate incremental results. Provide sufficient and appropriate training for users. Execute the communication plan. Executive management will clearly communicate importance of dedication to project.	Elevate issues to the Executive Steering Committee Hold focus groups with employees to address issues Reassign resources.
System is underutilized by intended users due to concerns in the security structure and confidentiality of data.	0.7	Implement change management processes throughout the project. Demonstrate systems security provisions/features. Provide sufficient and appropriate training for users.	Seek legislation to mandate use of system.
Architecture and Infrastructure			
The state does not have the facilities to house the project team	0.25	Begin facility search as soon as funds are approved	House some staff on-site (by combining offices) and house some staff at vendor facility until sufficient on-site space is located. Delay the start of the project.
Production and test environments can not reside at the State Data Center	0.4	Meet with appropriate data center stakeholders on a regular basis to understand requirements and timing.	External contract for production and test environments. Delay project implementation.

Software			
Heavy reliance on vendor for technical expertise and other critical components of the project. Limited control over frequency of new releases (as source code is typically owned by the vendor with enhancements and maintenance performed offsite).	0.25	Develop in house expertise on the application. Work with vendor to prioritize enhancements and scheduled maintenance. State staff should actively participate in vendor user groups.	Hire staff members that have experience using the tools in which the new system will be implemented. Provide sufficient funding for contracts to incorporate the costs of enhancements and maintenance.
Dependency on technology that is not consistent with the state's planned environment	0.5	Ensure the procurement process is aligned with state's technical direction.	Establish maintenance contracts with the product vendor to support the technology.
Requirements Management			
New requirements introduced after agreed upon specifications completed (increasing the scope of the project)	0.4	Meeting should be held early in the project to validate and achieve consensus on requirements. Functional requirements (as well as any specifications) should be signed off by Finance prior to development. Implement formalized change control/approval processes.	Execute change control/approval process. Adjust project timelines as needed.
External Environment			
Interface development relies on cooperation from other agencies (SCO, LAO, etc.) who may have competing priorities	0.9	Get agency commitment to participate. Maintain frequent communications (status meetings) with interfacing agencies to minimize and to better plan for conflicts.	Adjust project timelines as needed.
Lack of communication regarding the project status to key internal and external stakeholders (user input not solicited enough)	0.4	Establish a project communications plan to involve users and external stakeholders early and throughout the entire system development life cycle – regular status reporting to key stakeholders as well as stakeholder involvement in major project decisions.	Assess communication shortcomings and conduct immediate outreach to obtain stakeholder input.
Management Processes			
Departments and agencies are unable to meet cost requirements	0.5	Communicate with Statewide stakeholders consistently through the project approval and procurement phases. Estimate and fund cost increases for departments and agencies to meet requirements.	Revisit project funding approaches.
Acceptance/signoff process not well defined	0.2	Get agreement on who has decision-making capabilities/final authority. Develop formalized review timelines and roles. Develop alternative approval process if sign-off is not timely. Develop a documented escalation process for obtaining	Adjust project timelines to get necessary sign-off.

		appropriate approvals.	
Project plan not monitored and updated on a regular basis	0.3	Require frequent status meetings with the appropriate steering committees and require regular updates/reports regarding progress against the project plan to track variance.	Conduct frequent status meetings/reports and require regular updates regarding progress against the project plan.
Lack of formalized/timely issue resolution process – not easy to get management review and decisions in a timely manner	0.4	Get agreement on who has decision-making capabilities/final authority. Develop formalized review timelines and roles/ responsibilities for issue research and resolution. Utilize issue tracking software to identify/record issues and the status/resolution. Utilize the escalation process for obtaining appropriate approvals.	Assess impact to schedule and budget; meet with project leadership to determine an issue resolution process.
Contractor Performance			
Vendor/contractor providing software/solution may cease operations	0.1	Require that the vendor provide information regarding the financial stability of its company. Establish an escrow account to hold source code on the State's behalf.	Obtain the rights to the source code and perform development maintenance of the software either in-house or using another vendor
Other			
Conversion of data – level of effort underestimated	0.8	Begin data clean-up efforts prior to project start up. Require a conversion plan to be documented prior to commencing conversion	Adjust project timelines as needed.
Implementation plan too aggressive; unrealistic timelines and/or budget has not been appropriately allocated to key activities such as training, quality assurance.	0.6	Work with stakeholders to reach consensus on an appropriate implementation plan/timeline. Implement the change management process. Regularly monitor adherence to agreed upon implementation plan/timeline and project budget. Adjust project timelines and budget as needed.	Reduce functionality, where allowable, to meet deadlines and budget.
Frequent changes to the underlying budget processes	0.8	Procure a system that is flexible and easily adaptable to change.	Execute change control process.
Lack of agreement on a statewide coding structure (chart of accounts)	0.8	Work with stakeholders to reach consensus early in the project. Determine authority to establish a statewide coding structure.	Adjust project scope to reflect areas where consensus is not reached. Seek legislation to mandate a statewide chart of accounts.

7.2 Assessment

The Risk Management Worksheet identifies the potential sources of risk associated with this project. The risks identified on the worksheet will be re-evaluated on a monthly basis, or more frequently if required, throughout the project. In addition, the project manager will include all identified risks in the detailed project plan using the standard project management planning tools adopted by this project. This plan will encompass the entire structure of the project and its deliverables, providing a comprehensive framework for assessing each aspect of the project for potential risk.

7.3 Risk Identification

The following tools were used to aid in the identification of risks:

- SIMM Categories and Examples of Risk.
- Work Breakdown Structure
- Historical Information
- Project Team Brainstorming
- Interviews with Stakeholders
- Business Process Reengineering - Transition Plan

The characteristics of each identified risk are captured on the Risk Management Worksheet.

8.0 Economic Analysis Worksheets

The following section includes the Economic Analysis Worksheets for the BIS Project.

- Existing System/Baseline Cost Worksheet
- Proposed Alternative: statewide enterprise budget system
- Alternative 1: Stand-alone Budget System
- Economic Analysis Summary Worksheet
- Project Funding Plan Worksheet

The worksheets in this section provide an analysis of the costs associated with the alternatives for implementing a budget information system. The costs and savings represent estimates developed during the FSR process. These will be updated in the Special Project Report (SPR) that will be developed following procurement efforts.

8.1 Existing System/Baseline Cost Worksheet Assumptions

Existing cost data was determined by conducting a survey of budget operations activities across twenty (20) representative state departments, including DGS' Contracted Fiscal Services who provides financial services to twenty-two (22) state departments. The survey requested departments to provide past year actual and current year revised figures (based on the 2005-06 Governor's Budget) against the categories in the existing system/baseline cost worksheet.

Survey data was summarized and averaged by size of department budget (small, medium and large)[9]. These averages were used to extrapolate statewide figures by a multiplier of the number of small, medium and large budgets in the state and added to costs associated with Finance's budget operations.

8.2 Proposed Alternative Cost Worksheet Assumptions

This worksheet contains the estimated costs for a statewide (enterprise) BIS solution. The worksheet includes the costs of the new system over the project development and implementation lifecycle including one full year of maintenance for the new system.

The proposed BIS solution costs are based on estimates provided by vendors during related business process re-engineering efforts as well as cost information from actual statewide efforts occurring in other states.

[9] Budgets were categorized by total funding amounts. Small budget = $0-$29m; Medium budget = $30M - $499M; and Large budget = $500m +

8.2.1 One-time IT Project Costs

- The one-time costs for 2005-06 and 2006-07 are for the development of a statewide chart of accounts and standards; procurement related activities, including chartering the Executive Council; the Budget Practices Council; and the Business Practices Advisory Committee.
- It is anticipated that the solution will be implemented in three phases from August 2008 through July 2010.
- Full system functionality, statewide, will be completed by July 2011 with maintenance beginning in July 2011.
- One-time staff (salaries and benefits) include functional and technical team members and the following staffing estimates:
  - ✓ Project Sponsor: July 2005 start with 5% of time for the duration of the project
  - ✓ Executive Council: chartered in October 2005. Assume nine members on the Council at two (2) hours each member per month.
  - ✓ Project Director: committed 90% of time
  - ✓ Budget Practices Council: Chartered in July 2005. Assume 11 members at 5% of time for duration of the project for each member.
  - ✓ Business Practices Advisory Committee: Chartered in July 2005. Composed of representatives from 20 state departments, and 7 representatives from Finance for a total of 27 members on the Advisory Committee, at 5% of time for the duration of the project, except in 2005-06. In 2005-06, the 7 Finance members will be at 25% to support chart of account activities.
  - ✓ State Department Subject Matter Experts: 20 state SMEs at 20% of time beginning in July 2005 for the duration of the project, except during development activities (30%).
  - ✓ Data Center technical staff: costs are included for Data Center staff for the duration of the project. One PY estimate during 2006-07 for consulting services regarding technical requirements, LAN/WAN and other infrastructure issues, and 2.5 PYs through Phase I implementation (July 2007 thru June 2010).
- One-time Hardware Purchases:
  - ✓ The BIS Project will require PCs, printers and LAN hardware for the project team, including both state and vendor staff. A total one-time cost for these items is $284,094.
    - – PCs: $15,500 in 2005-06, $18,600 in 2006-07, $205,400 in 2007-08, and $86,800 in 2008-09. These costs are based on Finance's standard budget rate of $3,100/desktop.
    - – Finance will purchase four networked printers in 2007-08 and three in 2008-09 for the project team. In addition, one color printer will be purchased

in 2005-06. One-time printer costs are $50,000, based on Finance's standard rate of $5,000 per standard printer and $15,000 for a color printer.
  - Finance will require LAN hardware to support the infrastructure for the project team. $7,794 is included in 2007-08.
- ✓ No new hardware purchases were included for the new system, as the expectation is that vendors will leverage existing technology and platforms at the state's Data Center. If new hardware is required the costs will be identified in the procurement and included in the SPR.

- One-time Software Purchase/Licenses:
  - ✓ Software costs are estimated to be $17,200,000 in 2007-08. This will be updated based on procurement efforts and reflected in the SPR.
  - ✓ Software costs are derived from an average of cost information provided by vendors during related business process re-engineering efforts and data from actual statewide implementations.
    - State of Pennsylvania: One time software costs of $29m for full ERP implementation. Fifty three agencies and 80,000 employees
    - SCO: estimated one-time software costs of $10m to $22m for the 21st Century Project
    - Arizona: One-time software costs of $7.5m for full ERP implementation. 143 departments and 30,000 employees.
    - Software costs of $50,000 to purchase procurement software are included in 2005-06.
- One-time Telecommunications:
  - ✓ No added telecommunications costs have been estimated. If telecommunication costs are required, the costs will be identified in the procurement and included in the SPR.
- One-time Contract Services:
  - ✓ Software Customization: Costs for integration services considered design, configuration, customization, modification, testing and deployment.
  - ✓ Project Management: Costs are included for one PY throughout the duration of the project.
  - ✓ Project Oversight and IV&V: Finance will contract for an independent consultant to perform oversight functions. Project oversight has been estimated at $200,000 in 2006-07, $428,000 in 2007-08, and 5% of total project costs annually thereafter. IV&V is estimated at 5% of total project costs, beginning in February 2008.
  - ✓ Other contract services: Costs are included for assistance with establishing a statewide chart of accounts, procurement consulting services, and development of two system interfaces (SCO and CalSTARS).These costs total $893,000 in 2005-06, $893,000 in 2006-07, and $6,600,000 in 2007-08..

- Data Center Services:
  - ✓ Data Center costs are estimated to be $2,800,000 beginning in 2009-10 increasing to $4,210,000 in 2010-11. Annual on-going data center costs are estimated at $5,600,000. This will be updated based on procurement efforts and reflected in the SPR.
  - ✓ Data Center staffing resources have been included in the One-time Staff estimates.
- Agency Facilities:
  - ✓ Finance will require additional workspace for the project team, including vendor staff.
  - ✓ Facilities costs are based on a rate of $561.60 per PY (building cost per square foot of $3.12. Average Estimated 180 square feet to reflect work, common and conference space requirements). An additional $180 per month is included for DGS RESD fees.
  - ✓ No additional training rooms will be required. The BIS project will utilize existing training facilities at Finance.
- One-time Other:
  - ✓ OE&E amounts are included for state staff based on standard Finance rates, and included in the one-time staff (salaries and benefits).
  - ✓ No additional one-time other costs have been identified. If additional costs are required the costs will be identified in the procurement and included in the SPR.

8.2.2 Continuing IT Project Costs

- System maintenance begins September 2009 for Phase I with the first full year of maintenance in 2011-12.
- Continuing staff (salaries and benefits) include functional and technical team members. Estimates include BIS project team members for a cost of $2,441,340.
- Continuing Hardware Leases/Maintenance: Costs are included for the maintenance associated with the PCs and project team LAN hardware, beginning in 2007-08.
- Continuing Software Maintenance/Licenses:
  - ✓ Software licenses for the budget application will be renewed on an annual basis beginning in 2008-09, at a cost of $3,096,000 (estimated at 18% of estimated one-time software costs).
  - ✓ Software licenses for PCs will be renewed on an annual basis beginning in 2006-07, at a cost of $10,000.
- Continuing Telecommunications: No added telecommunications costs.
- Continuing Contract Services (Software Vendor Support):

- ✓ Contract services include fees for installing upgrades, patches, building future enhancements, etc.
- ✓ Contract services are based on an estimate of 10% of software customization support, starting in 2011-12.

- Continuing Data Center Services:
  - ✓ Data Center costs are estimated at $5,600,000 annually beginning in 2011-12.
- Continuing Agency Facilities: facilities costs have been included based on PYs for state and vendor staff, as described above.
- Continuing Other:
  - ✓ OE&E amounts are included for state staff based on standard Finance rates, and included in the one-time staff (salaries and benefits).

8.3 Rejected Alternative Cost Worksheet Assumptions

This worksheet contains the estimated costs for a stand-alone budget system. The worksheet includes the costs of the new system over the project development and implementation lifecycle including one full year of maintenance for the new system.

The costs are based on the proposed BIS solution, reduced by approximately one-third, where appropriate, due to the reduced scope (implementation only within Finance) and shorter implementation time frame. The following details these estimates.

8.3.1 One-time IT Project Costs

- The one-time costs for 2005-06 and 2006-07 are for the development of a statewide chart of accounts and standards; procurement related activities, including chartering the Executive Council; the Budget Practices Council; and the Business Practices Advisory Committee.
- It is anticipated that the solution will be implemented beginning in May 2008 with full system functionality completed by August 2009.
- One full year of maintenance begins in September 2009 thru September 2010.
- One-time staff (salaries and benefits) include functional and technical team members and the following staffing estimates:
  - ✓ Project Sponsor: July 2005 start with 5% of time for the duration of the project
  - ✓ Project Director: committed 90% of time
  - ✓ Budget Practices Council: Chartered in July 2005. Assume 11 members at 5% of time for duration of the project for each member.
  - ✓ Business Practices Advisory Committee: Chartered in July 2005. Composed of representatives from 20 state departments, and 7 representatives from Finance for

a total of 27 members on the Advisory Committee, at 5% of time for the duration of the project, except in 2005-06. In 2005-06, the 7 Finance members will be at 25% to support chart of account activities.

- ✓ Data Center technical staff: costs are included for Data Center staff for the duration of the project. One PY estimate during 2006-07 for consulting services regarding technical requirements, LAN/WAN and other infrastructure issues, and 2.5 PYs for the remainder of the project.

- One-time Hardware Purchases:
  - ✓ The BIS Project will require PCs, printers and LAN hardware for the project team, including both state and vendor staff. A total one-time cost for these items is $189,696.
  - ✓ PCs: $15,500 is needed for 2005-06, $27,900 in 2006-07, $24,800 in 2007-08, and $71,300 in 2008-09. These costs are based on Finance's standard budget rate of $3,100/desktop.
  - ✓ Finance will purchase one networked printer in 2007-08 for the project team. In addition, one color printer will be purchased in 2005-06. One-time printer costs are $45,000 based on Finance's standard rate of $5,000 per standard printer and $15,000 for a color printer.
  - ✓ Finance will require LAN hardware to support the infrastructure for the project team. $5,196 is included in 2007-08.
  - ✓ No new hardware purchases were included for the new system, as the expectation is that vendors will leverage existing technology and platforms at the state's Data Center. If new hardware is required the costs will be identified in the procurement and included in the SPR.
- One-time Software Purchase/Licenses:
  - ✓ Software costs are estimated to be approximately $2,500,000. This estimate is based on information obtained from vendors of stand-alone budget systems as part of market research efforts.
  - ✓ Software costs of $50,000 to purchase procurement software are included in 2005-06.
- One-time Telecommunications: No added telecommunications costs have been estimated. If telecommunication costs are required, the costs will be identified in the procurement and included in the SPR.
- One-time Contract Services:
  - ✓ Software Customization: Costs for integration services considered design, configuration, customization, modification, testing and deployment.
  - ✓ Project Management: Costs are included for one PY through September 2009.

- ✓ Project Oversight and IV&V: Finance will contract for an independent consultant to perform oversight functions. Project oversight has been estimated at $200,000 in 2006-07 and 5% of total project costs annually thereafter. IV&V is estimated at 5% of total project costs annually, beginning in 2007-08.
- ✓ Other contract services: Costs are included for assistance with establishing a statewide chart of accounts, procurement consulting services, and development of two system interfaces (SCO and CalSTARS).These costs total $893,000 in 2005-06, $893,000 in 2006-07, and $6,067,500 in 2007-08.

- Data Center Services:
  - ✓ Data Center costs are estimated to be $182,902 in 2007-08 and $182,902 in 2008-09 for system development.
  - ✓ Data Center staffing resources have been included in the One-time Staff estimates.
- Agency Facilities:
  - ✓ Finance will require additional workspace for the project team, including vendor staff.
  - ✓ Facilities costs are based on a rate of $561.60 per PY (building cost per square foot of $3.12. Average estimated 180 square feet to reflect work, common and conference space requirements.). An additional $180 per month is included for DGS RESD fees.
  - ✓ No additional training rooms will be required. The BIS project will utilize existing training facilities at Finance.
- One-time Other:
  - ✓ OE&E amounts are included for state staff based on standard Finance rates, and included in the one-time staff (salaries and benefits).
  - ✓ No additional one-time other costs have been identified. If additional costs are required the costs will be identified in the procurement and included in the SPR.

8.3.2 Continuing IT Project Costs

- System maintenance begins in 2009-10.
- Continuing staff (salaries and benefits) include functional and technical team members. Estimates include BIS project team members for a cost of $1,064,205 in 2009-10 and $1,930,140 annually thereafter.
- Continuing Hardware Leases/Maintenance: Costs are included for the maintenance associated with the PCs and project team LAN hardware leased through the Data Center, beginning in 2007-08.
- Continuing Software Maintenance/Licenses:

- ✓ Software licenses for the budget application will be renewed on an annual basis beginning in 2008-09, at a cost of $450,000 (estimated at 18% of estimated one-time software costs).
- ✓ Software licenses for PCs will be renewed on an annual basis beginning in 2006-07, at a cost of $10,000.

- Continuing Contract Services (Software Vendor Support):
  - ✓ Contract services include fees for installing upgrades, patches, building future enhancements, etc.
  - ✓ Contract services are based on an estimate of 15% of software customization support, starting in September 2009.
- Continuing Data Center Services:
  - ✓ Data Center costs are estimated at $731,608 annually beginning in 2009-10.
- Continuing Agency Facilities: facilities costs have been included based on PYs for state and vendor staff, as described above.
- Continuing Other:
  - ✓ OE&E amounts are included for state staff based on standard Finance rates, and included in the one-time staff (salaries and benefits).
- Reflects existing costs reduced by costs associated with contract services and data center services.

EXISTING SYSTEM/BASELINE COST WORKSHEET

All costs to be shown in whole (unrounded) dollars.

Department: Department of Finance

Project: Budget Information System

	FY 2005/06		FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	
Continuing Information Technology Costs													
Staff (salaries & benefits)	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4
Hardware Lease/Maintenance		444,361		444,361		444,361		444,361		444,361		444,361	
Software Maintenance/Licenses		757,831		757,831		757,831		757,831		757,831		757,831	
Contract Services		2,371,661		2,371,661		2,371,661		2,371,661		2,371,661		2,371,661	
Data Center Services		1,176,152		1,176,152		1,176,152		1,176,152		1,176,152		1,176,152	
Agency Facilities		444,857		444,857		444,857		444,857		444,857		444,857	
Other		166,952		166,952		166,952		166,952		166,952		166,952	
Total IT Costs	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**
Continuing Program Costs:													
Staff	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8
Other		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780	
Total Program Costs	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**
TOTAL EXISTING SYSTEM COSTS	**2787.2**	**204,801,483**	**2787.2**	**204,801,483**	**2787.2**	**204,801,483**	**2787.2**	**204,801,483**	**2787.2**	**204,801,483**	**2787.2**	**204,801,483**	**2787.2**

PROPOSED ALTERNATIVE: **Budget Information System**

Date Prepared: 07/14/2005

Department: Department of Finance

Project: Budget Information System

All Costs Should be shown in whole (unrounded) dollars.

	FY 2005/06		FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts			PYs	Amts	PYs	Amts
One-Time IT Project Costs																
Staff (Salaries & Benefits)	13.1	1,721,034	16.7	2,090,502	33.5	4,327,002	36.0	4,646,502	38.5	4,966,002	33.0	4,263,102	0.0	0	170.6	22,014,144
Hardware Purchase		30,500		18,600		133,194		101,800		0		0		0		284,094
Software Purchase/License		60,000		0		17,200,000										17,260,000
Telecommunications		0		0		0		0		0		0		0		0
Contract Services																0
Software Customization		0		0		3,875,250		15,466,500		13,862,250		10,854,000		0		44,058,000
Project Management		420,000		420,000		360,000		360,000		360,000		360,000		0		2,280,000
Project Oversight		0		200,000		428,113		1,023,650		959,413		773,855		0		3,385,030
IV&V Services		0		0		178,380		1,023,650		959,413		773,855		0		2,935,298
Other Contract Services [2 3]		927,000		989,140		6,657,400		0		0		0		0		8,573,540
TOTAL Contract Services		1,347,000		1,609,140		11,499,143		17,873,800		16,141,075		12,761,710		0		61,231,868
Data Center Services		0		0		0		0		0		0		0		0
Agency Facilities		108,000		108,000		305,424		494,122		460,426		352,598				1,828,570
Other		0														0
Total One-time IT Costs	**13.1**	**3,266,534**	**16.7**	**3,826,242**	**33.5**	**33,464,763**	**36.0**	**23,116,224**	**38.5**	**21,567,503**	**33.0**	**17,377,411**	**0.0**	**0**	**170.6**	**102,618,676**
Continuing IT Project Costs																
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	5.8	745,500	7.0	894,600	18.9	2,441,340	31.7	4,081,440
Hardware Lease/Maintenance		0		0		9,167		244,752		278,685		264,485		263,485		1,060,574
Software Maintenance/Licenses		0		10,000		10,000		3,106,000		3,106,000		3,106,000		3,106,000		12,444,000
Telecommunications		0		0		0		0		0		0		0		0
Contract Services (Software Vendor Support)		0		0		0		0		0		0		4,932,000		4,932,000
Data Center Services		0		0		0		0		2,800,000		4,210,000		5,600,000		12,610,000
Agency Facilities		0		0		0		0		0				170,640		170,640
Other		0		0		0		0		0		0		0		0
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**10,000**	**0.0**	**19,167**	**0.0**	**3,350,752**	**5.8**	**6,930,185**	**7.0**	**8,475,085**	**18.9**	**16,513,465**	**31.7**	**35,298,654**
Total Project Costs	**13.1**	**3,266,534**	**16.7**	**3,836,242**	**33.5**	**33,483,930**	**36.0**	**26,466,976**	**44.3**	**28,497,688**	**40.0**	**25,852,496**	**18.9**	**16,513,465**	**202.4**	**137,917,331**
Continuing Existing Costs																
Information Technology Staff	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	24.6	2,129,000	23.4	1,969,500	23.4	1,969,500	193.0	17,566,000
Other IT Costs		5,361,814		5,361,814		5,361,814		5,361,814		2,956,004		2,956,004		2,956,004		30,315,268
Total Continuing Existing IT Costs	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**30.4**	**8,236,314**	**24.6**	**5,085,004**	**23.4**	**4,925,504**	**23.4**	**4,925,504**	**193.0**	**47,881,268**
Program Staff [1]	2751.8	168,988,389	2751.8	168,988,389	2751.8	168,988,389	2749.3	168,668,889	2746.8	168,349,389	2746.8	168,349,389	2756.8	169,627,389	19255.1	1,181,960,224
Other Program Costs		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		188,564,461
Total Continuing Existing Program Costs	**2751.8**	**195,926,169**	**2751.8**	**195,926,169**	**2751.8**	**195,926,169**	**2749.3**	**195,606,669**	**2746.8**	**195,287,169**	**2746.8**	**195,287,169**	**2756.8**	**196,565,169**	**19255.1**	**1,370,524,685**
Total Continuing Existing Costs	**2782.2**	**204,162,483**	**2782.2**	**204,162,483**	**2782.2**	**204,162,483**	**2779.7**	**203,842,983**	**2771.4**	**200,372,173**	**2770.2**	**200,212,673**	**2780.2**	**201,490,673**	**19448.1**	**1,418,405,953**
TOTAL ALTERNATIVE COSTS	**2795.3**	**207,429,017**	**2798.9**	**207,998,725**	**2815.7**	**237,646,413**	**2815.7**	**230,309,959**	**2815.7**	**228,869,861**	**2810.2**	**226,065,169**	**2799.1**	**218,004,138**	**19650.4**	**1,556,323,283**
INCREASED REVENUES		0		0		0		0		0		0		0		**0**

1/The reduction to Continuing Existing Program Staff Costs is due to the redirection of staff temporarily to the BIS Project. This does not reflect any anticipated savings as a result of BIS.

2/In 2005-06 thru 2007-08, Other Contract Services includes an Interagency Agreement with Department of General Services for contract services.

3/In 2007-08, Other Contract Services includes the estimated cost for the development of two system interfaces. These activities will be completed by the system integrator (and will be included in that contract); however, the costs are shown in this line item for clarity.

ECONOMIC ANALYSIS SUMMARY

Date Prepared: 07/14/2005

Department: Department of Finance

Project: Budget Information System

All costs to be shown in whole (unrounded) dollars.

	FY 2005/06		FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM																
Total IT Costs	30.4	8,236,314	30.4	8,236,314	30.4	8,236,314	30.4	8,236,314	30.4	8,236,314	30.4	8,236,314	30.4	8,236,314	212.8	57,654,198
Total Program Costs	2756.8	196,565,169	2756.8	196,565,169	2756.8	196,565,169	2756.8	196,565,169	2756.8	196,565,169	2756.8	196,565,169	2756.8	196,565,169	19297.6	1,375,956,185
Total Existing System Costs	2787.2	204,801,483	2787.2	204,801,483	2787.2	204,801,483	2787.2	204,801,483	2787.2	204,801,483	2787.2	204,801,483	2787.2	204,801,483	19510.4	1,433,610,383
PROPOSED ALTERNATIVE	**Budget Information System**															
Total Project Costs	13.1	3,266,534	16.7	3,836,242	33.5	33,483,930	36.0	26,466,976	44.3	28,497,688	40.0	25,852,496	18.9	16,513,465	202.4	137,917,331
Total Cont. Exist. Costs	2782.2	204,162,483	2782.2	204,162,483	2782.2	204,162,483	2779.7	203,842,983	2771.4	200,372,173	2770.2	200,212,673	2780.2	201,490,673	19448.1	1,418,405,953
Total Alternative Costs	2795.3	207,429,017	2798.9	207,998,725	2815.7	237,646,413	2815.7	230,309,959	2815.7	228,869,861	2810.2	226,065,169	2799.1	218,004,138	19650.4	1,556,323,284
COST SAVINGS/AVOIDANCES	(8.1)	(2,627,534)	(11.7)	(3,197,242)	(28.5)	(32,844,930)	(28.5)	(25,508,476)	(28.5)	(24,068,378)	(23.0)	(21,263,686)	(11.9)	(13,202,655)	(140.1)	(122,712,901
Increased Revenues		0		0		0		0		0		0		0		0
Net (Cost) or Benefit	(8.1)	(2,627,534)	(11.7)	(3,197,242)	(28.5)	(32,844,930)	(28.5)	(25,508,476)	(28.5)	(24,068,378)	(23.0)	(21,263,686)	(11.9)	(13,202,655)	(140.1)	(122,712,901
Cum. Net (Cost) or Benefit	(8.1)	(2,627,534)	(19.8)	(5,824,776)	(48.2)	(38,669,706)	(76.7)	(64,178,182)	(105.2)	(88,246,559)	(128.2)	(109,510,245)	(140.1)	(122,712,900)		
ALTERNATIVE #1	**Stand-alone Budget System**															
Total Project Costs	8.0	2,567,820	12.3	3,273,370	14.6	11,795,428	19.6	11,639,125	19.1	6,881,585	14.9	5,165,141	14.9	5,165,141	103.3	46,487,609
Total Cont. Exist. Costs	2787.2	201,253,670	2787.2	201,253,670	2787.2	201,253,670	2787.2	201,253,670	2782.9	200,580,229	2780.2	200,075,669	2780.2	200,075,669	19492.1	1,405,746,250
Total Alternative Costs	2795.2	203,821,490	2799.4	204,527,040	2801.8	213,049,099	2806.8	212,892,795	2802.0	207,461,814	2795.1	205,240,810	2795.1	205,240,810	19595.3	1,452,233,859
COST SAVINGS/AVOIDANCES	(8.0)	979,993	(12.3)	274,443	(14.6)	(8,247,615)	(19.6)	(8,091,312)	(14.8)	(2,660,331)	(7.9)	(439,327)	(7.9)	(439,327)	(85.0)	(18,623,476
Increased Revenues		0		0		0		0		0		0		0		0
Net (Cost) or Benefit	(8.0)	979,993	(12.3)	274,443	(14.6)	(8,247,615)	(19.6)	(8,091,312)	(14.8)	(2,660,331)	(7.9)	(439,327)	(7.9)	(439,327)	(85.0)	(18,623,476
Cum. Net (Cost) or Benefit	(8.0)	979,993	(20.3)	1,254,436	(34.8)	(6,993,179)	(54.4)	(15,084,492)	(69.2)	(17,744,822)	(77.1)	(18,184,149)	(85.0)	(18,623,476)	(170.0)	(37,246,952
ALTERNATIVE #2																
Total Project Costs																
Total Cont. Exist. Costs																
Total Alternative Costs																
COST SAVINGS/AVOIDANCES																
Increased Revenues																
Net (Cost) or Benefit																
Cum. Net (Cost) or Benefit																

PROJECT FUNDING PLAN

Department: Department of Finance

All Costs to be in whole (unrounded) dollars

Date Prepared: 07/14/2005

Project: Budget Information System

	FY 2005/06		FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	**13.1**	**3,266,534**	**16.7**	**3,836,242**	**33.5**	**33,483,930**	**36.0**	**26,466,976**	**44.3**	**28,497,688**	**40.0**	**25,852,496**	**18.9**	**16,513,465**	**202.4**	**137,917,330**
RESOURCES TO BE REDIRECTED																
Staff	11.1	1,517,534	10.0	1,657,242	10.0	1,323,702	12.5	1,643,202	20.8	2,708,202	22.0	2,857,302	9.9	1,291,140	**96.2**	**12,998,324**
Funds:																
Existing System		0		0		0		0		0		0		0		**0**
Other Fund Sources		0		0		0		0		0		0		0		**0**
TOTAL REDIRECTED RESOURCES	**11.1**	**1,517,534**	**10.0**	**1,657,242**	**10.0**	**1,323,702**	**12.5**	**1,643,202**	**20.8**	**2,708,202**	**22.0**	**2,857,302**	**9.9**	**1,291,140**	**96.2**	**12,998,324**
ADDITIONAL PROJECT FUNDING NEEDED																
One-Time Project Costs	2.0	1,749,000	6.7	2,169,000	23.5	32,141,061	23.5	21,473,022	23.5	19,604,801	18.0	15,414,709	0.0	0	**97.2**	**92,551,592**
Continuing Project Costs	0.0	0	0.0	10,000	0.0	19,167	0.0	3,350,752	0.0	6,184,685	0.0	7,580,485	9.0	15,222,325	**9.0**	**32,367,414**
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	**2.0**	**1,749,000**	**6.7**	**2,179,000**	**23.5**	**32,160,228**	**23.5**	**24,823,774**	**23.5**	**25,789,486**	**18.0**	**22,995,194**	**9.0**	**15,222,325**	**106.2**	**124,919,006**
TOTAL PROJECT FUNDING	**13.1**	**3,266,534**	**16.7**	**3,836,242**	**33.5**	**33,483,930**	**36.0**	**26,466,976**	**44.3**	**28,497,688**	**40.0**	**25,852,496**	**18.9**	**16,513,465**	**202.4**	**137,917,330**
Difference: Funding - Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**

Total Estimated Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	**0.0**	**0**

ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET
(DOF Use Only)

Department: Department of Finance
Project: Budget Information System

Date Prepared: 07/14/2005

Annual Project Adjustments	FY 2005/06 PYs	FY 2005/06 Amts	FY 2006/07 PYs	FY 2006/07 Amts	FY 2007/08 PYs	FY 2007/08 Amts	FY 2008/09 PYs	FY 2008/09 Amts	FY 2009/10 PYs	FY 2009/10 Amts	FY 2010/11 PYs	FY 2010/11 Amts	FY 2011/12 PYs	FY 2011/12 Amts	Net Adjustments PYs	Net Adjustments Amts
One-time Costs																
Previous Year's Baseline	0.0	0	2.0	1,749,000	6.7	2,169,000	23.5	32,141,061	23.5	21,473,022	23.5	19,604,801	18.0	15,414,709		
(A) Annual Augmentation /(Reduction)	**2.0**	**1,749,000**	**4.7**	**420,000**	**16.8**	**29,972,061**	**0.0**	**(10,668,039)**	**0.0**	**(1,868,221)**	**(5.5)**	**(4,190,092)**	**(18.0)**	**(15,414,709)**		
(B) Total One-Time Budget Actions	2.0	1,749,000	6.7	2,169,000	23.5	32,141,061	23.5	21,473,022	23.5	19,604,801	18.0	15,414,709	0.0	0	**97.2**	**92,551,592**
Continuing Costs																
Previous Year's Baseline	0.0	0	0.0	0	0.0	10,000	0.0	19,167	0.0	3,350,752	0.0	6,184,685	0.0	7,580,485		
(C) Annual Augmentation /(Reduction)	**0.0**	**0**	**0.0**	**10,000**	**0.0**	**9,167**	**0.0**	**3,331,585**	**0.0**	**2,833,933**	**0.0**	**1,395,800**	**9.0**	**7,641,840**		
(D) Total Continuing Budget Actions	0.0	0	0.0	10,000	0.0	19,167	0.0	3,350,752	0.0	6,184,685	0.0	7,580,485	9.0	15,222,325	**9.0**	**32,367,414**
Total Annual Project Budget Augmentation / (Reduction) [A + C]	**2.0**	**1,749,000**	**4.7**	**430,000**	**16.8**	**29,981,228**	**0.0**	**(7,336,454)**	**0.0**	**965,712**	**(5.5)**	**(2,794,292)**	**(9.0)**	**(7,772,869)**		

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D] **106.2** **124,919,006**

Annual Savings/Revenue Adjustments

Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Increased Program Revenues		0		0		0		0		0		0		0

ALTERNATIVE #1: **Stand-alone Budget System**

Date Prepared: 07/14/2005

Department: Department of Finance

Project: Budget Information System

All Costs Should be shown in whole (unrounded) dollars.

	FY 2005/06		FY 2006/07		FY 2007/08		FY 2008/09		FY 2009/10		FY 2010/11		FY 2011/12		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs																
Staff (Salaries & Benefits)	8.0	1,066,320	12.3	1,609,470	14.6	1,903,755	19.6	2,544,480	7.9	1,019,520	0.0	0	0.0	0	62.3	8,143,545
Hardware Purchase		30,500		32,900		29,800		91,300		0		0		0		184,500
Software Purchase/License		50,000		0		2,500,000		0		0		0		0		2,550,000
Telecommunications		0		0		0		0		0		0		0		0
Contract Services																0
Software Customization		0		0		481,324		7,154,550		1,735,200		0		0		9,371,074
Project Management		420,000		420,000		360,000		360,000		90,000		0		0		1,650,000
Project Oversight		0		200,000		137,254		502,952		142,236		0		0		982,441
IV&V Services		0		0		0		0		142,236		0		0		142,236
Other Contract Services		893,000		893,000		6,067,500		0		0		0		0		7,853,500
TOTAL Contract Services		1,313,000		1,513,000		7,046,078		8,017,502		2,109,672		0		0		19,999,251
Data Center Services		0		0		182,902		182,902		0		0		0		365,804
Agency Facilities		108,000		108,000		116,726		325,642		15,703		0		0		674,071
Other		0		0		0		0		0		0		0		0
Total One-time IT Costs	**8.0**	**2,567,820**	**12.3**	**3,263,370**	**14.6**	**11,779,261**	**19.6**	**11,161,825**	**7.9**	**3,144,895**	**0.0**	**62,813**	**0.0**	**62,813**	**62.3**	**31,979,984**
Continuing IT Project Costs																
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	11.2	1,064,205	14.9	1,930,140	14.9	1,930,140	41.0	4,924,485
Hardware Lease/Maintenance		0		0		6,167		17,300		16,267		27,767		27,767		95,268
Software Maintenance/Licenses		0		10,000		10,000		460,000		460,000		460,000		460,000		1,860,000
Telecommunications		0		0		0		0		0		0		0		0
Contract Services		0		0		0		0		1,417,500		1,890,000		1,890,000		5,197,500
Data Center Services		0		0		0		0		731,608		731,608		731,608		2,194,824
Agency Facilities		0		0		0		0		47,110		62,813		62,813		172,735
Other		0		0		0		0		0		0		0		0
Total Continuing IT Costs	**0.0**	**0**	**0.0**	**10,000**	**0.0**	**16,167**	**0.0**	**477,300**	**11.2**	**3,736,690**	**14.9**	**5,102,328**	**14.9**	**5,102,328**	**41.0**	**14,444,812**
Total Project Costs	**8.0**	**2,567,820**	**12.3**	**3,273,370**	**14.6**	**11,795,428**	**19.6**	**11,639,125**	**19.1**	**6,881,585**	**14.9**	**5,165,141**	**14.9**	**5,165,141**	**103.3**	**46,487,609**
Continuing Existing Costs																
Information Technology Staff	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	30.4	2,874,500	26.1	2,474,060	23.4	1,969,500	23.4	1,969,500	194.5	17,911,060
Other IT Costs		1,814,001		1,814,001		1,814,001		1,814,001		1,541,000		1,541,000		1,541,000		11,879,004
Total Continuing Existing IT Costs	**30.4**	**4,688,501**	**30.4**	**4,688,501**	**30.4**	**4,688,501**	**30.4**	**4,688,501**	**26.1**	**4,015,060**	**23.4**	**3,510,500**	**23.4**	**3,510,500**	**194.5**	**29,790,064**
Program Staff	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	2756.8	169,627,389	19297.6	1,187,391,724
Other Program Costs		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		26,937,780		188,564,461
Total Continuing Existing Program Costs	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**2756.8**	**196,565,169**	**19297.6**	**1,375,956,185**
Total Continuing Existing Costs	**2787.2**	**201,253,670**	**2787.2**	**201,253,670**	**2787.2**	**201,253,670**	**2787.2**	**201,253,670**	**2782.9**	**200,580,229**	**2780.2**	**200,075,669**	**2780.2**	**200,075,669**	**19492.1**	**1,405,746,250**
TOTAL ALTERNATIVE COSTS	**2795.2**	**203,821,490**	**2799.4**	**204,527,040**	**2801.8**	**213,049,099**	**2806.8**	**212,892,795**	**2802.0**	**207,461,814**	**2795.1**	**205,240,810**	**2795.1**	**205,240,810**	**19595.3**	**1,452,233,859**
INCREASED REVENUES		0		0		0		0		0		0		0		**0**