

STATE OF CALIFORNIA
 Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/15)

Fiscal Year 2016-17	Business Unit 0840	Department State Controller's Office	Priority No.
Budget Request Name 0840-016-BCP-BR-2016-GB		Program 0500100 - ACCOUNTING AND REPORTING 9900100 - ADMINISTRATION	Subprogram SCO - FI\$Cal Information Systems Division

Budget Request Description
 SCO FI\$Cal System Support

Budget Request Summary

The State Controller's Office (SCO) requests \$1,699,000 (\$968,000 General Fund [GF]; \$731,000 Central Service Cost Recovery Fund [CSCRF]) in 2016-17 and \$1,599,000 (\$911,000 GF; \$688,000 CSCRF) in 2017-18 and 2018-19 for 13.0 positions to support new workloads resulting from the FI\$Cal Project. The requested resources will ensure the SCO continues to fulfill the Controller's constitutional obligations and statutory responsibilities related, but not limited to, fiscal management, state reporting and auditing of payments during transition and use of the FI\$Cal system.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO <i>TB</i> Todd Boltjes, Chief Information Officer	Date <i>12/21/15</i>
For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance. <input type="checkbox"/> FSR <input type="checkbox"/> SPR Project No. Date:		

If proposal affects another department, does other department concur with proposal? Yes No
 Attach comments of affected department, signed and dated by the department director or designee.

Prepared By <i>Laurie Brownfield</i> Laurie Brownfield, P&E FI\$Cal Project	Date <i>12/23/15</i>	Reviewed By <i>Larry Norris</i> Larry Norris, Chief Admin and Disb. Division	Date <i>12/21/15</i>
Department Director <i>George Loas</i> George Loas Chief Operating Officer	Date <i>12/21/15</i>	Agency Secretary <i>Tom Yowell</i> Tom Yowell Chief Administrative Officer	Date <i>12-21-15</i>

Department of Finance Use Only

Additional Review: Capital Outlay ITCU FSCU OSAE CALSTARS Dept. of Technology

BCP Type: Policy Workload Budget per Government Code 13308.05

PPBA <i>Chris J. Chavez</i>	Date submitted to the Legislature <i>11/7/16</i>
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BCP Fiscal Detail Sheet

BCP Title: FI\$Cal System Support

DP Name: 0840-025-BCP-DP-2016-GB

Budget Request Summary

	FY16					
	CY	BY	BY+1	BY+2	BY+3	BY+4
Positions - Permanent	0.0	13.0	13.0	13.0	0.0	0.0
Total Positions	0.0	13.0	13.0	13.0	0.0	0.0
Salaries and Wages						
Earnings - Permanent	0	985	985	985	0	0
Total Salaries and Wages	\$0	\$985	\$985	\$985	\$0	\$0
Total Staff Benefits	0	508	508	508	0	0
Total Personal Services	\$0	\$1,493	\$1,493	\$1,493	\$0	\$0
Operating Expenses and Equipment						
5301 - General Expense	0	60	26	26	0	0
5304 - Communications	0	13	13	13	0	0
5322 - Training	0	91	26	26	0	0
5346 - Information Technology	0	42	41	41	0	0
Total Operating Expenses and Equipment	\$0	\$206	\$106	\$106	\$0	\$0
Total Budget Request	\$0	\$1,699	\$1,599	\$1,599	\$0	\$0
Fund Summary						
Fund Source - State Operations						
0001 - General Fund	0	968	911	911	0	0
9740 - Central Service Cost Recovery Fund	0	731	688	688	0	0
Total State Operations Expenditures	\$0	\$1,699	\$1,599	\$1,599	\$0	\$0
Total All Funds	\$0	\$1,699	\$1,599	\$1,599	\$0	\$0
Program Summary						
Program Funding						
0500100 - Accounting and Reporting	0	1,699	1,599	1,599	0	0
9900100 - Administration	0	1,074	984	984	0	0
9900200 - Administration - Distributed	0	-1,074	-984	-984	0	0
Total All Programs	\$0	\$1,699	\$1,599	\$1,599	\$0	\$0

Personal Services Details

Salary Information

Positions	Min	Mid	Max	CY	BY	BY+1	BY+2	BY+3	BY+4
1312 - Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)				0.0	3.0	3.0	3.0	0.0	0.0
1337 - Sr Info Sys Analyst (Spec) (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	0.0	0.0
1581 - Staff Programmer Analyst (Spec) (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	0.0	0.0
1583 - Sr Programmer Analyst (Spec) (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	0.0	0.0
4159 - Assoc Mgmt Auditor (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	0.0	0.0
4161 - Sr Mgmt Auditor (Eff. 07-01-2016)				0.0	2.0	2.0	2.0	0.0	0.0
4163 - Supvng Mgmt Auditor (Eff. 07-01-2016)				0.0	1.0	1.0	1.0	0.0	0.0
Total Positions				0.0	13.0	13.0	13.0	0.0	0.0

Salaries and Wages	CY	BY	BY+1	BY+2	BY+3	BY+4
1312 - Staff Info Sys Analyst (Spec) (Eff. 07-01-2016)	0	221	221	221	0	0
1337 - Sr Info Sys Analyst (Spec) (Eff. 07-01-2016)	0	162	162	162	0	0
1581 - Staff Programmer Analyst (Spec) (Eff. 07-01-2016)	0	147	147	147	0	0
1583 - Sr Programmer Analyst (Spec) (Eff. 07-01-2016)	0	81	81	81	0	0
4159 - Assoc Mgmt Auditor (Eff. 07-01-2016)	0	134	134	134	0	0
4161 - Sr Mgmt Auditor (Eff. 07-01-2016)	0	147	147	147	0	0
4163 - Supvng Mgmt Auditor (Eff. 07-01-2016)	0	93	93	93	0	0
Total Salaries and Wages	\$0	\$985	\$985	\$985	\$0	\$0

Staff Benefits						
5150900 - Staff Benefits - Other	0	508	508	508	0	0
Total Staff Benefits	\$0	\$508	\$508	\$508	\$0	\$0
Total Personal Services	\$0	\$1,493	\$1,493	\$1,493	\$0	\$0

Analysis of Problem

A. Budget Request Summary

The State Controller's Office (SCO) requests \$1,699,000 (\$968,000 General Fund [GF]; \$731,000 Central Service Cost Recovery Fund [CSCRF]) in 2016-17 and \$1,599,000 (\$911,000 GF; \$688,000 CSCRF) in 2017- 18 and 2018-19 for 13.0 positions to support new workloads resulting from the FI\$Cal Project. The requested resources will ensure the SCO continues to fulfill the Controller's constitutional obligations and statutory responsibilities related, but not limited to, fiscal management, state reporting and auditing of payments during transition and use of the FI\$Cal system.

B. Background/History

The State Controller is the Chief Fiscal Officer of California, one of the largest economies in the world. The SCO provides sound fiscal controls and independent oversight of more than \$100 billion in annual receipts and disbursements of public funds. This includes, but is not limited to, accounting for and controlling the disbursement of state funds; determining the legality and accuracy of every claim against the state and issuing warrants in payment of the state's bills.

As agreed in the Partnership Agreement and Memorandum of Understanding, the SCO in partnership with Department of Finance, State Treasurer's Office and the Department of General Services are engaged in a collaborative effort to develop, implement, utilize and maintain an integrated financial management system, known as the FI\$Cal Project. The FI\$Cal System is a statewide enterprise solution, which will re-engineer the state's business processes and encompass the management of resources and dollars in the areas of budgeting, accounting, procurement, cash management, financial management, financial reporting, cost accounting, asset management, project accounting, grant management and human resources management. Within these areas, each partner agency maintains 'ownership' of their respective business processes as it relates to their constitutional and/or statutory responsibilities.

The FI\$Cal System is a custom off the shelf Enterprise Resource Planning tool and is planned to be implemented in waves. Currently, the FI\$Cal Project has deployed Waves 1 and 2, with the most recent deployment occurring in December 2015. The workload and associated resources requested within this BCP are based upon a revised Project timeline for the release of Waves 3 and 4 as identified within the FI\$Cal Project SPR 6. It is expected that SCO control agency functionality in Wave 3 will not be deployed until July 2017; it is also expected that Wave 4 will not be released until July 2018. While Waves 1 and 2 have introduced new workloads within the Information Systems Division (ISD), Waves 3 and 4, will have a critical bearing and significant impact in ISD's ability to not only maintain and support the existing financial systems, but also create the need to develop, build and implement the required functionality to support the FI\$Cal system on an interim basis until it is fully deployed. Additionally, there are approximately 18 agencies slated as deferred or exempt from the FI\$Cal System. Until an implementation plan is provided by the FI\$Cal Project for these agencies, the existing financial systems will need to remain operational and the decommissioning timeline cannot be determined.

At this time, the FI\$Cal Project has not identified all of the financial sub-systems which are not migrating to the new FI\$Cal system. These actions are necessary to ensure both the SCO financial systems and the new FI\$Cal system provide the same services, data, and security for those departments not migrating to the FI\$Cal system. These responsibilities directly impact both the existing and new systems availability, security, performance, data integrity, and capacity as well as upstream/downstream inputs/outputs. In addition, the SCO has critical responsibilities to support home divisions as it relates to statewide interfaces, security and Governance Risk and Compliance in the near term.

Analysis of Problem

Resource History (Dollars in thousands)

Program Budget	2010-11	2011-12	2012-13	2013-14	2014-15
Authorized Expenditures	\$3,505	\$3,334	\$3,654	\$6,390	\$6,791
Actual Expenditures ¹	\$2,731	\$2,958	\$4,771	\$6,437	\$9,400
Revenues	-	-	-	-	-
Authorized Positions	32.0	32.0	37.8	41.0	41.0
Filled Positions ²	20.7	22.4	36.1	48.8	71.2
Vacancies	11.3	9.6	1.7	0.0	0.0

¹Actual Expenditures based on amount reimbursed by FI\$Cal.

²Filled Positions based on PY equivalent of \$100k per PY.

Workload History

Workload Measure	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16
N/A	-	-	-	-	-	-

C. State Level Considerations

As a partner agency of FI\$Cal, the SCO has the same vision of successfully implementing a statewide ERP. The additional resources outlined in this proposal will not only meet the business objectives of FI\$Cal but those of the SCO. If resourced appropriately, the new system will ensure continued financial integrity, accountability and transparency for state and local governments. Furthermore, it will improve fiscal controls and support better decision making by state managers and the Legislature, by enhancing the quality, timeliness, consistency, and accessibility of financial management information through the use of powerful data access tools, standardized data, and financial management reports.

D. Justification

The positions in this request are necessary to support an immediate need for the SCO in the areas of security, compliance, analysis and ISD support. These resources will be integrated into existing SCO divisions and report to SCO management. The workload and resources requested are in direct support of both the SCO and FI\$Cal, and will demonstrate a commitment to the success of the FI\$Cal Project beyond implementation. There is a need for the Governance Risk and Compliance and ISD Legacy System Support Units to be part of the SCO organization, rather than the FI\$Cal organization, to ensure that constitutional oversight is not diluted.

Governance Risk and Compliance (GRC) Unit – 5.0 positions

This workload will focus on ensuring compliance and segregation of duties be enforced, as well as ensure compliance of all business processes impacting the use of FI\$Cal. Furthermore, the unit will ensure all changes in the system (configurations, new program updates) performed by data administrators comply with the policies of the FI\$Cal system.

The FI\$Cal Project includes implementation of the GRC tool, which is restricted for SCO's use, with two primary purposes for FI\$Cal. GRC software is used by both the Division of Audits and the GRC Unit for two very different audits. Division of Audits will use the tool for post payment auditing of vouchers while the GRC Unit will use the GRC software to monitor the internal controls of the FI\$Cal system. The requested resources will support the latter of the two uses of the GRC tool. The tool will be used to reduce risk of fraud through the monitoring of FI\$Cal user roles ensuring compliance, segregation of duties and to ensure access to data is limited to appropriate roles. Additionally, user access changes will be an ongoing part of system security and compliance. As changes are made now, it is clear that monitoring and review will be an integral part of system compliance and security. The SCO is particularly interested in internal controls related to disbursement of state funds as a means of ensuring system information can be relied upon for the SCO's audit of disbursements in accordance with Government Code 925.6 and 12410. The SCO will be using GRC to identify internal control weaknesses and report these errors to the FI\$Cal security unit so immediate corrections can be made.

With the requested LT resources, the SCO will perform the GRC workload while developing workload metrics, volumes and results. These will be reviewed at a later date to determine the necessary level of support on an ongoing basis.

Analysis of Problem

SCO's Information Systems Division (ISD) Legacy System Support – 8.0 positions

Waves 3 and 4 will have a critical bearing and significant impact on the ISD's ability to not only maintain and support the existing financial systems, but also create the need to develop, build and implement the required functionality to support the FI\$Cal system on an interim basis until it is fully deployed. The workload to create and test 9 new interfaces and conversions with the FI\$Cal system is significant. Wave 3 shifts the Accounting Book of Record from the SCO legacy Fiscal system to FI\$Cal while continuing to maintain the payments out of SCO Legacy systems. SCO must make and fully test changes to the existing SCO legacy Fiscal system. FI\$Cal functionality will replace other SCO legacy systems (Treasury Trust and Warrant Reconciliation [BankRec]). This is a significant workload effort to plan and test the retirement of these systems. Since FI\$Cal does not plan to convert all legacy data, ISD must work with SCO business divisions to plan the change to these systems so they are still available for historical research.

Once Wave 3 and 4 are underway the ISD must perform the following:

- Review and provide feedback on functional and technical specification documents (i.e., for each interface it includes detailed description/requirements, processing procedures, process flows, operations requirements, record layouts, develop/test Job Control Language (JCL) instructions, etc.) created by the SCO FI\$Cal Team.
- Provide direction/consultation to the SCO FI\$Cal Team and other SCO business and technical areas as to how new interfaces or processes are to be implemented.
- Make the necessary modifications within the SCO Production environment; which also includes implementing and executing the new interfaces into SCO's production stream.
- Design and implement new interface information security protocols, processes and procedures to facilitate the exchange of essential data between SCO mainframe systems and FI\$Cal systems.
- Due to the dissimilar technology platforms and new technologies involved, system interface information security operations will require requirements and systems analysis, systems design and development, and ongoing operational support and maintenance in order to ensure information security objectives (i.e. data and system confidentiality, integrity and availability) are maintained.

If the above work is complete prior to the expiration of the positions and funding, the 8.0 positions would work along with the current SCO ISD staff to perform the following tasks:

- Support ongoing maintenance and operations of the remaining legacy systems as well as support any interfaces between those systems and FI\$Cal along with their other production operations work outside of FI\$Cal.
- Given it is unknown as to whether FI\$Cal will convert prior history from these systems, staff would continue to support retroactive or historical processing, ensuring records/files are maintained for potential Audits (i.e., CSA or IRS), as well as recovered in the event of a disaster.
- Once the business division has deemed the legacy systems for retirement, based on record retention, PO staff would then be engaged in the planning and decommissioning effort, which would include operations shutdown, mainframe decommissioning, records/files management, etc.

The ISD does not have the capacity, nor the resources, to perform the technical workload which has far exceeded what was originally anticipated. This increased technical work exists in the areas of business analysis, testing, information security, production operations and application development. The positions and functions described below will be a temporary enhancement to the ISD's current units during FI\$Cal implementation. As described, the requested resources will be dedicated to supporting the SCO's legacy systems and providing technical assistance to SCO home divisions and external customers regarding FI\$Cal interface transitions. These positions will develop and manage the testing strategies for the legacy systems.

Business Analysis – 2.0 positions

The ISD Business Systems Analysis Unit (BSAU) is the liaison between the ISD technical teams and the SCO division program areas involved in technology projects. Historically, FI\$Cal project staff have requested detailed information regarding the SCO's business and system processes for SCO legacy systems during each wave's development lifecycle. The ISD was able to absorb this workload with existing resources through Wave 2 implementation but expects that Wave 3 and 4 will impact the BSAU beyond their ability to absorb, as they will require the implementation of 9 new interfaces with corresponding business processes and procedures.

Analysis of Problem

Resourcing this unit to address the FI\$Cal Project needs would allow the SCO to be more engaged and responsive to requests for analysis, documentation and information.

Information Security – 1.0 position

The Information Security Office (ISO) provides independent, objective assurance and consulting activity designed to add value and improve the information security and business operations of the SCO. It is vital to evaluate and improve the effectiveness of information security risk and internal control management, security assurance, statutory compliance and governance processes. The ISO is requesting 1.0 limited-term resource to consult, guide, advise, mentor and collaborate with the ISD, CA Department of Technology and FI\$Cal Project in an effort to build and test the new SCO mainframe systems interface and conversion processes and procedures related to FI\$Cal. This position would also support the SCO mainframe system security operations in the maintenance of legacy systems, design and implement new interface protocols, processes and procedures to facilitate the exchange of essential data and manage the transition to the new FI\$Cal system.

Production Operations – 1.0 position

The Production Operations Unit (PO) provides production operations support for the SCO data processing systems including both SCO divisions and external customers. The unit is responsible for the set-up, execution, monitoring and recovery (when necessary) of all scheduled production processes that support the obligations of the SCO to record and disburse funds including claims, state payroll and other public funds. The PO processed 531,447 production jobs in 2014-15 resulting in 22,545,224 warrants totaling \$429,193,880,297 and 26,372,647 EFT payments amounting to \$152,377,599,745. In addition, PO staff, in coordination with the CA Department of Technology are responsible for ensuring SCO's statewide systems are operational 6:30 a.m. – 12:30 a.m. Monday through Friday and 6:45 a.m. – 4:00 p.m. on Saturday's.

The PO Unit requires 1.0 position to review and provide feedback on requirements analysis and documents, development, testing, integration and implementation of new special processes. As an example, an interim process was established to upload the FI\$Cal Outbound Interface File (INFBU062) into the existing SCO legacy Fiscal system. This process will remain in place until the SCO legacy Fiscal system is no longer used as the book of record for the SCO. This position would also review and provide feedback to FI\$Cal and ISD developers in the design and operations of 9 interfaces and their corresponding 14 interface files. PO will also be responsible for modifying batch jobs impacted by the shift of existing interfaces to FI\$Cal and participating in the Wave 3 conversion effort of SCO financial systems. Workload in this group is also expected to increase when FI\$Cal offers EFT payment options for vendor payments.

Application Development – 4.0 positions

The ISD's Accounting, Reporting and Disbursements Support Unit (ARDSU) maintains, develops and enhances the SCO's financial, accounting, claim and disbursements systems in support of the Division of Accounting and Reporting (DAR), the Division of Audits and the Division of Administration and Disbursements (ADD) in support of the SCO's control agency functions. Among the systems the ARDSU supports is the legacy Fiscal system and Treasury Trust and Warrant Reconciliation (BankRec).

Wave 3 will replace legacy statewide control functions and will transition the Accounting Book of Record and cash management systems to FI\$Cal. This transition will be extensive for the SCO and will require comprehensive analysis, application development, testing and implementation support for a successful transition. Wave 4 will expand the fully implemented FI\$Cal functionality to all remaining in-scope departments. SCO legacy systems will continue to process specialized payment system files (Franchise Tax Board refunds, state payroll, CalPERS retirement payments, etc.) and make all warrant payments for the State of California. As a result, the ARDSU will remain responsible for the maintenance, operations, and enhancements of the SCO's legacy financial applications. In addition, this group will be responsible for the programming changes to the legacy systems, as a result of their retirement and retention of historical data, which are replaced by the FI\$Cal system.

The ARDSU requires 4.0 limited-term resources to support the application development needs of the SCO. Wave 3 and 4 will require the ARDSU to continue testing and implementation related to the Budget Act as well as do testing on 9 new interfaces and conversions with corresponding business processes and procedures.

Analysis of Problem

These new interfaces and conversions, along with the existing maintenance and enhancement requirements for legacy systems, will cause a significant increase in workload for the ARDSU.

Please refer to Attachment I for further workload details.

E. Outcomes and Accountability

Projected Outcomes¹

Workload Measure	2015-16 ¹	2016-17	2017-18	2018-19	2019-20	2020-21
N/A	-	-	-	-	-	-

¹Measures of success for each unit are described below.

Overall outcomes for the FI\$Cal Project include deploying the application and associated business processes to departments statewide, control agencies, and non-FI\$Cal departments (prior to their department's FI\$Cal deployment wave) and deferred and exempt departments that will be required to access FI\$Cal with the SCO Accounting Book of Record implementation. As these departments and users are implemented, the FSC becomes the primary support mechanism for ongoing maintenance and support. Specific outcomes related to the GRC Unit, as well as the SCO's legacy system support activities, are described below.

Governance, Risk, and Compliance Unit

The requested resources will enable the SCO to perform necessary audit activities to ensure all transactions are appropriate, proper and comply with SCO statutory requirements as a control agency.

The table below lists the high level work tasks and functions to be provided by the GRC Unit. These and other tasks listed in Attachment I will safeguard against fraudulent or inappropriate transactions within the FI\$Cal system.

Projected Deliverables – SCO GRC Unit	
Workload Tasks	Predicted Outcome
Perform complex security access audits of FI\$Cal using the GRC tool.	<ul style="list-style-type: none"> • The FI\$Cal system will be able to more precisely mitigate Separation of Duties (SOD) risks and assure compliance with the Financial Integrity and State Manager's Accountability Act of 1983 (Government Code Sections 13400–13407) that "requires the head of each state agency establish and maintain an adequate system of internal control within their agencies." • Appropriate implementation of SOD to maintain the integrity of financial reporting and IT governance through automated, advanced controls that monitor role provisioning and determine whether SOD controls are in place and working effectively. • Controls user setups to manage operational risks. • Continuously monitor transactions against policies to detect suspicious transactions. By identifying anomalies in everyday transactions, the system prevents escalation of risk, fraud, and costly remediation. • Reduces cost of internal and external audits.
Research every GRC model incident (potential SOD violation) to determine if the incident is true SOD violation or a false positive (i.e. an incident that does not represent an actual SOD violation).	
Analyze GRC model results to determine if FI\$Cal system roles are built correctly and/or security system changes have created unintended page access/SOD violations.	
Based on research of GRC model/control results, suggest mitigation steps that FI\$Cal should perform to eliminate/reduce the risk of inappropriate user's access.	<ul style="list-style-type: none"> • Managers at the SCO and FI\$Cal will have the latest data regarding the risks and compliance of the FI\$Cal system.
Document and communicate GRC audit results to management.	
Review GRC model/control results and suggested mitigation performed by the Associate Management Auditor.	<ul style="list-style-type: none"> • Improve GRC models to better manage risk and detect defects.
Analyze GRC audit outputs, review GRC incidents, and suggest corrective actions.	<ul style="list-style-type: none"> • Recognize where improvements within the FI\$Cal system can be made that will improve its risk management, governance, and compliance.
Analyze workload, documenting volumes and results.	<ul style="list-style-type: none"> • Information to be used to determine the ongoing level of resources required to support GRC workload.

Analysis of Problem

ISD Legacy System Support

The requested resources will enable the SCO to perform the technical workload that far exceeds what was originally anticipated in support of FI\$Cal Project Waves 3 and 4, and will ensure successful implementation of the official book of record responsibilities and comply with SCO statutory requirements as a control agency.

The table below lists the high level work tasks and the measure of success (or deliverable) expected to be completed within the timeframe of Waves 3 and 4, should all the requested resources be provided.

Projected Deliverables – SCO Legacy System Support	
Workload Tasks	Measure of Success
Perform gap analysis/feasibility assessment and review coding/programming, information security, business analysis, and production operations.	<ul style="list-style-type: none"> • Restructure of interface files and processes for production operations to execute into production environment. • New or modified secure file transfer processes. • Documentation of new or revised business rules based on assessments. • Modify or create new application programs to automated outcomes of business analysis.
Create functional and design specifications	<ul style="list-style-type: none"> • Complete set of technical documentation.
Create schedule and timelines	<ul style="list-style-type: none"> • Project plan for ISD staff activities.
Collaboration and development of interfaces to facilitate the exchange of essential data between SCO Mainframe systems and FI\$Cal.	<ul style="list-style-type: none"> • Complete, accurate and secure content within the FI\$Cal system.
Interface Testing and Conversion Testing	<ul style="list-style-type: none"> • Complete set of test strategy, test plans, and test cases for ISD staff and SCO business partners to execute. • System defects captured and resolved. • Test results documented and evaluated to make recommendations for implementation.
Customer Acceptance Testing	<ul style="list-style-type: none"> • Customer Acceptance achievement.
SCO Readiness	<ul style="list-style-type: none"> • Implementation plan for ISD staff activities.
Implementation	<ul style="list-style-type: none"> • Successful Implementation with minimal disruption to state's accounting and general ledger functions. • Changes to processes and new interfaces are implemented into production.

F. Analysis of All Feasible Alternatives

Alternative 1: The State Controller's Office (SCO) requests \$1,699,000 (\$968,000 GF; \$731,000 CSCRF) in 2016-17 and \$1,599,000 (\$911,000 GF; \$688,000 CSCRF) in 2017-18 and 2018-19 for 13.0 positions to support new workloads resulting from the FI\$Cal Project.

Pros:

- Provides the necessary support to the SCO business Divisions and departments impacted by the implementation of the FI\$Cal System.
- SCO's legacy Fiscal system processes and procedures will be maintained and kept current.
- Will safeguard SCO proprietary data.
- Ensures the SCO can perform all control functions related to FI\$Cal.
- Supports use of the GRC tool to efficiently enforce access and business policies related to FI\$Cal.
- Ensures the SCO can properly test, analyze and transition control functionality to the FI\$Cal system.

Cons:

- This will require a limited-term appropriation to fund this proposal.

Alternative 2: Do not provide the SCO with the requested resources.

Pros:

- This will not require a permanent appropriation to fund this proposal.

Analysis of Problem

Cons:

- Support to the SCO business Divisions and departments impacted by the implementation of the FI\$Cal System will not be provided; and
- SCO's legacy Fiscal system would not be maintained and kept current.

G. Implementation Plan

Timeframe	Activities/Outcome
May 1, 2016 – June 30, 2016	Advertise positions, conduct interviews and select candidates.
July 1, 2016 – September 30, 2016	Complete staff training.
November 1, 2016 through June 30, 2019	Implement plans to support the SCO's oversight of internal control audits in FI\$Cal. Implement plans to support the SCO's ISD with interfaces, testing, security, and Legacy system management.

H. Supplemental Information

In addition to the SCO standard OE&E complement, funding for Minor Equipment, Training, and Minor Equipment is included within this request.

Minor Equipment - \$34,000 is requested for desktop PCs, monitors, standard software/licenses, and a modular workstation for one of the positions, in the BY.

Training - \$78,000 is requested for specialized IT training classes, and GRC training in the BY and \$13,000 in BY+1.

Information Technology - \$3,000 is requested for specialized IT software (Reflections, Visio Standard 2013 and Visio Professional 2013), in the BY and \$2,000 in BY+1.

I. Recommendation

Approve Alternative 1: The State Controller's Office (SCO) requests \$1,699,000 (\$968,000 GF; \$731,000 CSCRF) in 2016-17 and \$1,599,000 (\$911,000 GF; \$688,000 CSCRF) in 2017-18 and 2018-19 in for 13.0 positions to support new workloads resulting from the FI\$Cal Project.

SCO FI\$Cal System Support

Governance, Risk and Compliance (GRC) Workload Description	2016-17 (BY) through 2018-19 (BY+2)			
	New Annual Increased Workload/	Annual Hours per Task	Total Increased Hours	Number of Positions
Classification: Supervising Management Auditor Major responsibility: Manages unit, directs workload, provides program oversight, and coordination with FI\$Cal project teams, partner agencies, state departments on policy for system and user compliance. Manages the SCO GRC Compliance Team and coordinates compliance efforts/results with FI\$Cal Security and SCO Upper Management.				
> Manage the GRC Team members (timesheets, performance evaluations, workload assignments, etc.)	1	533	533	0.3
> Coordinate with the FI\$Cal Tech Team for technical/operational needs/troubleshooting of the GRC system	1	178	178	0.1
> Coordinate communication of the GRC audit results to FI\$Cal Security Team and SCO management	1	178	178	0.1
> Develop policies, procedures, and procedures for GRC team members	1	178	178	0.1
> Develop GRC audit program for designing/building of GRC audit models and controls	1	425	425	0.2
> Review GRC model functional designs	1	89	89	0.1
> Review and approve GRC test models for use in the production environment	1	178	178	0.1
Workload assumption: Provides a manageable workload ratio of staff to managers and is critical to establishing GRC related processes, procedures, governance and oversight for new functionality and processes that are new to the SCO and FI\$Cal solution.				
TOTAL Supervising Management Auditor	7	1,759	1,759	1.0
Classification: Staff Management Auditor (Specialist) Major responsibility: Perform complex security access audits of FI\$Cal using the GRC tool.				
> Gain an understanding of the FI\$Cal role mapping/security matrix in order to properly design, build, and update GRC models and controls	2	178	356	0.2
> Document and communicate GRC audit results to management	2	178	356	0.2
> Prepare GRC model functional designs	10	36	360	0.2
> Build/program GRC models and controls	10	53	530	0.3
> Test and refine GRC models	10	89	890	0.5
> Test and evaluate GRC controls	10	53	530	0.3
> Evaluate and monitor previously created GRC models to determine if model designs need to be adjusted due to changes in the FI\$Cal system	10	18	180	0.1
> Review GRC model/control results and suggested mitigation performed by the Associate Management Auditor	10	36	360	0.2
Workload assumption: Assumes five models will be developed.				
TOTAL Staff Management Auditor (Specialist)	64	641	3,562	2.0
Classification: Associate Management Auditor Major responsibility: Analyze GRC audit outputs, review GRC incidents, and suggest corrective actions.				
> Review/analyze daily GRC result reports	2,200	1	1,100	0.6
> Research every GRC model incident (potential SOD violation) to determine if the incident is true SOD violation or a false positive (i.e. an incident that does not represent an actual SOD violation.	480	3	1,440	0.8
> Analyze GRC model results to determine if FI\$Cal system roles are built correctly and/or security system changes have created unintended page access/SOD violations	2	355	710	0.4
> Based on research of GRC model/control results, suggest mitigation steps that FI\$Cal should perform to eliminate/reduce the risk of inappropriate users access.	2	178	356	0.2
Workload assumption: Assumes review of 5 reports for 240 days per auditor; assumes incidents are found in 20% of the reports				
TOTAL Associate Management Auditor	2,684	537	3,606	2.0
TOTAL GRC REQUEST	2,755	2,937	8,927	5.0

SCO FISCAL System Support

Information Systems Division (ISD) Workload Description	2016-17 (BY) through 2018-19 (BY+2)			
	New Annual Increased Workload/	Annual Hours per Task	Total Increased Hours	Number of Positions
Business Analysis				
Classification: Staff Information Systems Analyst (Specialist) Major responsibility: Partner with the FISCAL Project team, SCO business, and ISD technical staff to accomplish the ISD system development lifecycle deliverables for the FISCAL Project.				
> Review FISCAL project analysis and design documentation for interface and conversions. Determine impact of FISCAL functionality (Wave 3 and 4) on SCO systems. Perform gap analysis on documentation needs.	36	10	360	0.2
> Document functional specifications for required interim processes, design documentation for changes to the SCO mainframe systems and new FISCAL interfaces (9) and (6) conversions, and transition requirements for implementation of the changes. Participate in the planning and documentation for SCO's modified and retired systems (3).	36	40	1,440	0.8
> Develop project tasks and schedules, generate status reports. Meet with project teams on a regular basis. Collaborate with project team in creating and executing implementation plan.	2	60	120	0.1
> Assist SCO business with implementation activities.	36	45	1,620	0.9
Workload assumption: Estimates are based on information and impacts known regarding number of new interfaces and changes to existing interfaces or processes. As the SCO and FISCAL project teams continue to identify "to be" process flows, interpretation and gap analysis will occur to determine documentation needs. This represents new workload for the ISD FISCAL project team that cannot be addressed with existing resources.				
TOTAL Staff Information Systems Analyst (Specialist)	110	155	3,540	2.0
Information Security				
Classification: Senior Information Systems Analyst (Specialist) Major responsibility: Support the SCO mainframe system security operations in the maintenance of legacy systems and managing the transition to the new FISCAL system secure interfaces.				
> Consult, guide, advise, mentor and collaborate with SCO and FISCAL project leads from business and technology areas in guiding the FISCAL project through SCO mainframe production environments authentication and secure access processes. Provide guidance and support for requirements analysis and documentation, development, testing, integration, implementation of effective solutions for secure access and file transferring of FISCAL data from various IT platforms to SCO's mainframe.	16	80	1,280	0.7
> Support all SCO mainframe production environments authentication and secure access activities required throughout FISCAL Wave 2-4 deployments which includes development of new and modified secure file transferring processes. Additionally, as new secure file transferring processes are to be implemented assess and modify processing methods to ensure information security (i.e. data and system confidentiality, integrity and availability).	10	16	160	0.1
> Review and provide feedback to FISCAL and ISD developers in the design and operations of interfaces, including how they will impact production processing on an interim as well as once FISCAL is fully deployed.	10	16	160	0.1
> Develop, implement and present effective solutions for secure access and file transferring of FISCAL data from various IT platforms to SCO's mainframe.	10	18	180	0.1
Workload assumption: Supporting the SCO mainframe system security operations in the maintenance of legacy systems and managing the transition to the new FISCAL system secure interfaces will result in a significant increase in the Information Security Office's (ISO) workload. The ISD/ISO is not staffed to handle this increase in workload.				
TOTAL Senior Information Systems Analyst (Specialist)	46	130	1,780	1.0
Production Operations				
Classification: Staff Information Systems Analyst (Specialist) Major responsibility: Provide research, oversight and direction to the SCO and FISCAL Project leads (business and technology areas) as it relates to all existing SCO legacy systems production processing components.				
> Consult, guide, advise, mentor and collaborate with SCO and FISCAL project leads from business and technology areas in guiding the FISCAL project through SCO Mainframe PO processes. Provide guidance and support for requirements analysis and documentation, development, testing, integration, implementation of effective solutions.	36	22	792	0.4

SCO FISCAL System Support

Information Systems Division (ISD) Workload Description	2016-17 (BY) through 2018-19 (BY+2)			
	New Annual Increased Workload/	Annual Hours per Task	Total Increased Hours	Number of Positions
> Support all SCO Mainframe Production Operations activities required throughout FISCAL Wave 2-4 deployments which includes development of new and modified production JCL/CLIST/Panels. Additionally, as new processes are to be implemented assess and modify processing methods to ensure efficiency (i.e. cost, performance, etc.).	40	12	480	0.3
> Review and provide feedback to FISCAL and ISD developers in the design and operations of interfaces, including how they will impact production processing on an interim as well as once FISCAL is fully deployed.	16	12	192	0.1
> Assess and implement where viable new processes into the Electronic Scheduler Process (ESP). Additionally, Wave 3 of the FISCAL project is anticipated to change the way legacy fiscal does business, as such it will result in changes to our production operations. Conduct analysis to assess current and future PO procedures and processes as well as determine forward strategy to implement required modifications to the production environment.	5	20	100	0.1
> Develop, implement and present effective solutions for secure file transferring of FISCAL data from various IT platforms to SCO's mainframe.	5	20	100	0.1
Workload assumption: Based on past experience, supporting the Division of Accounting (DAR) and the Administration & Disbursements Divisions (ADD) in the maintenance of legacy systems and managing the transition to the new FISCAL system will result in a significant increase in the ISD's PO workload. As planned by the FISCAL Project, PO will be required to maintain the existing mainframe Fiscal System, processes and interfaces, as well as implement new production operational procedures to integrate FISCAL with existing systems. The ISD/PO is not staffed to handle this increase in workload.				
TOTAL Staff Information Systems Analyst (Specialist)	102	86	1,664	1.0
Application Development				
Classification: Staff Programmer Analyst				
Major responsibility: Technical Specialist and Subject Matter Expert.				
> Adhere to work product schedules, priorities and provide progress status to Senior, meet with Senior to receive direction. Provide status to Senior and project leaders.	24	30	720	0.4
> Collaborate with Senior and Business Analyst to document all changes to 3 Legacy systems (Fiscal, Warrant Reconciliation, and Treasury Trust) and their Interface programs, new processes and procedures needed as a result of FISCAL Wave 3 or 4.	24	30	720	0.4
> Perform analysis, coding and testing for any service requests for FISCAL Wave 3 or 4 following ISD's established procedures for the system development lifecycle.	10	20	200	0.1
> Provide programming technical expertise, troubleshoot, resolve, communicate and document production problems.	24	30	720	0.4
> Provide information as requested, of conversion, and customer acceptance testing processes for Warrant Reconciliation (BankRec), Treasury Trust, and Fiscal Legacy with the FISCAL system. Participate in effort to develop the Legacy Warrant Reconciliation (BankRec), Treasury Trust, and Fiscal conversion and customer acceptance test plans, assist in the execution and documentation of the results of the Legacy Fiscal, Warrant Reconciliation (BankRec), Treasury Trust, and their respective conversions and customer acceptance testing. Validate the results are accurate as expected and provide direction as needed.	30	40	1,200	0.7
Workload assumption: Based on prior history of work on this project in conjunction with normal workload of the Fiscal Legacy Staff Programmer Analyst.				
TOTAL Staff Programmer Analyst	112	150	3,560	2.0
Classification: Senior Programmer Analyst				
Major responsibility: Senior Technical Lead and Project Lead.				
> Develop and coordinate work product schedules, establish priorities and monitor progress, meet with staff to consult, direct, oversee, Provide status to management and project leaders.	24	10	240	0.1
> Develop and coordinate testing and implementation schedules, established priorities and monitor progress, provide status to management and project leaders. Consultation, direction, oversight of all work carried out by Staff Programmer Analyst.	24	10	240	0.1
> Develop design specifications for Interface programs, new processes and procedures, and maintenance to Legacy systems. Provide direction and oversight for the Staff Programmer Analyst to ensure that ISD's system development lifecycle procedures are adhered to.	24	20	480	0.3
> Lead and direct analysis, coding and testing for any service requests for the maintenance to Legacy systems.	10	10	100	0.1
> Develop implementation plans for Interface programs, new processes and procedures, and maintenance to Legacy systems. Provide programming technical expertise, troubleshoot, resolve, communicate and document production problems.	10	10	100	0.1

SCO FISCAL System Support

Information Systems Division (ISD) Workload Description	2016-17 (BY) through 2018-19 (BY+2)			
	New Annual Increased Workload/	Annual Hours per Task	Total Increased Hours	Number of Positions
> Lead effort in development of Legacy Fiscal conversion and customer acceptance test plans, execution and validation of test plan, and the documentation of the results of the Legacy Fiscal conversion and customer acceptance testing. Review and sign-off of the results if accurate as expected, and provide direction as needed.	30	18	540	0.3
Workload assumption: Workload assumption: Based on prior history of work on this project in conjunction with normal workload of the Fiscal Legacy Senior Programmer Analyst.				
TOTAL Senior Programmer Analyst	122	78	1,700	1.0
Classification: Senior Information Systems Analyst (Specialist)				
Major responsibility: Partner with the FISCAL Project team, SCO business, and ISD technical staff to develop test strategies and manage testing for the SCO as a result of the FISCAL Project.				
> Review FISCAL project analysis and design documentation for interface and conversions.	15	10	150	0.1
> Determine impact of FISCAL functionality (Wave 3 and 4) on SCO systems. Meet with SCO business and ISD staff to develop plans for retired systems.	3	20	60	-
> Develop project tasks and schedules, generate status reports. Meet with project teams on a regular basis. Collaborate with project team in creating and executing implementation plan.	1	100	100	0.1
> Develop test strategy and test plans. Coordinate with the SCO business divisions to identify test conditions and test scripts for the 9 interfaces and 3 modified/retired systems.	12	60	720	0.4
> Manage testing activities. Create tracking and status reporting of test results.	12	60	720	0.4
Workload assumption: Estimates are based on information and impacts known regarding number of new interfaces and changes to existing interfaces or processes. As the SCO and FISCAL project teams continue to identify "to be" process flows, interpretation and gap analysis will occur to determine documentation needs. The parallel testing activities are highly complex. Testing requires daily coordination, and a continuous change management process to be established for requirements and test plans, and detailed reporting of test results. Workload for Waves 3 and 4 overlaps fiscal years, and start date of test execution is not yet known. This represents new workload for the ISD FISCAL project team that cannot be addressed with existing resources.				
TOTAL Senior Information Systems Analyst (Specialist)	43	250	1,750	1.0
TOTAL ISD REQUEST	535	849	13,994	8.0
TOTAL SCO REQUEST	3,290	3,786	22,921	13.0