

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

Fiscal Year 2016	Business Unit 8660	Department Public Utilities Commission	Priority No. 001
Budget Request Name 8660-001-BCP-BR-2016-A1		Program 9900100-ADMINISTRATION	Subprogram

Budget Request Description
 PUC – IT Restructuring

Budget Request Summary

In this proposal, the California Public Utilities Commission (PUC) requests \$3,370,000, distributed among 12 PUC funds as described below; and 24 new full-time permanent positions for its Information Technology Services Branch (ITSB).

At current IT staffing levels, the PUC cannot keep pace with its growing operational workload. The PUC lacks the IT resources to ensure information security, provide public transparency, and inform decision-makers.

This proposal addresses seven key IT areas at the PUC:

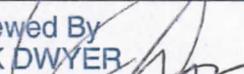
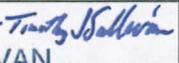
IT Service Desk, Information Security, Enterprise Services and Infrastructure, Application and Project Portfolios, Mobility Support, IT Acquisitions, and Enterprise Architecture.

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 No	Code Section(s) to be Added/Amended/Repealed	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 Reza Yazdi 	Date 3-29-16

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.

FSR SPR Project No. Date:

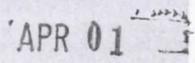
If proposal affects another department, does other department concur with proposal? Yes No
Attach comments of affected department, signed and dated by the department director or designee.

Prepared By REZA YAZDI 	Date 03/29/16	Reviewed By JACK DWYER 	Date 03/29/16
Department Director TIMOTHY J. SULLIVAN 	Date 03/29/16	Agency Secretary	Date

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	Original Signed By: Ellen Moratti	Date submitted to the Legislature	APR 01 
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Analysis of Problem

A. Budget Request Summary

In this proposal, the California Public Utilities Commission (PUC) requests an increase of 24 new full-time permanent positions for its Information Technology Services Branch (ITSB):

- Two (2) – Systems Software Specialist III (Supervisor)
- Three (3) – Systems Software Specialist III (Technical)
- Ten (10) – Systems Software Specialist II (Technical)
- Two (2) – Data Processing Manager I
- Two (2) – Staff Information Systems Analyst (Supervisor)
- Four (4) – Associate Information Systems Analyst (Specialist)
- One (1) – Office Technician (General)

At current IT staffing levels, the PUC cannot keep pace with its growing operational workload. The PUC lacks the IT resources to appropriately support its mission-critical programs and information security, provide public transparency, and inform decision-makers.

The funding for this expansion will be allocated proportionately, since IT provides services to the entire agency administratively, across the following funds:

(0462) Public Utilities Commission Utilities Reimbursement Account; (3089) Public Utilities Commission Ratepayer Advocate Account; (0042) State Highway Account State Transportation Fund; (0046) Public Transportation Account State Transportation Fund; (0461) Public Utilities Commission Transportation Reimbursement Account; (0464) California High-Cost Fund-A Administrative Committee Fund; (0470) California High-Cost Fund-B Administrative Committee Fund; (0471) Universal Lifeline Telephone Service Trust Administrative Committee Fund; (0483) Deaf and Disabled Telecommunications Program Administrative Committee Fund; (0493) California Teleconnect Fund Administrative Committee Fund; (3141) California Advanced Services Fund; and (0890) Federal Trust Fund.

Background/History

The Information Technology Services Branch (ITSB) is responsible for developing and maintaining the Information Technology (IT) necessary to support the PUC's mission-critical work; to provide transparency to the public; and to provide useful, actionable data to decision-makers inside and outside the PUC.

ITSB currently contains the following technical units:

- IT Service Desk: Responsible for end user support, Tier 1 application support and audio visual support in multiple locations.
- Information Security Office: Responsible to oversee agency compliance with policies and procedure regarding the security of information assets, disaster recovery, business continuity, access control, privacy training, incident response, eDiscovery, and processing information requests (such as Public Records Act requests).
- Enterprise Services and Infrastructure Unit: Responsible for data center support and infrastructure support pertaining to the PUC's IT operations, enterprise email system, Windows and Linux servers, storage, virtualization, remote connectivity, communication and mobility support, systems administration, patch management, backup and recovery, encryption, security certificate administration, and archiving.
- Enterprise Application Development Unit: Responsible for the PUC's Oracle environment, including development and maintenance of custom enterprise applications, reporting, electronic servicing, mobile applications, database administration, and middleware administration.
- Website and Enterprise Applications Unit: Responsible for supporting, analyzing, and proactively maintaining the PUC's website infrastructure (Internet/Intranet) and enterprise server based application tools (Sharepoint, Content Server, Ektron, etc), along with the development of website applications and mobile applications.

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- Network and Security Unit: Responsible for supporting network infrastructure including LAN, WAN and Wi-Fi, firewalls, web filter, IDS, end point protection, SIEM administration, load balancers, malware protection, and encryption, as well as identifying management and supporting two-factor authentication.
- IT Acquisitions and Project Management Office: Responsible for providing project management and business analysis services for IT projects, managing the PUC's IT Project Portfolio, and handling all IT acquisitions.

For more information, **please see Attachment 1 - Current and Proposed Organizational Structures.**

Summary of the Problem

Over the past two decades, the PUC's operational IT needs have grown dramatically, while a commensurate investment has not been made in IT staff. The PUC has insufficient IT resources to keep pace with its growing operational needs to support its mission-critical programs, provide public transparency and ensure information security.

Growing PUC Program IT Needs: The PUC's workforce is comprised largely of regulatory analysts, engineers, attorneys, and managers. These knowledge workers are implementing increasingly complex, data-driven policies and programs, such as forecasting consumer adoption of energy efficiency measures and the resulting reductions in energy demand, or using risk assessment modeling to deploy natural gas pipeline inspectors where they can have the biggest impact on public safety. These programs require the support of sophisticated IT systems. PUC knowledge workers also need tools that support productivity and collaboration as they work remotely and after normal business hours.

An internal redirect of funding to IT in the last two fiscal years allowed ITSB to procure IT services, including project management, business analysis, development, testing, training and communications, and content architecture services, in order to support high-priority IT projects. Even with the temporary addition of contracted resources, however, the IT project backlog is substantial. Eight high-priority projects have obtained S1BA approval from the Department of Technology, but are pending initiation due to insufficient ITSB resources. Six of these projects, requested in 2013 or 2014, are not expected to initiate until 2017 or 2018 unless additional funding is redirected or additional staff is added. For more information, **please see Attachment 2 – PUC IT Project Portfolio.**

Growing Public IT Needs: While the PUC programs have grown, the needs and expectations of the public for interacting with government in a transparent and paperless way have also increased. This has resulted in the need for an increase in IT resources.

The public and businesses expect to interact with the PUC electronically. Back in 2005, AB 1182 instructed the PUC to implement electronic filing for documents related to formal proceedings and recommended electronic filing for informal proceeding documents. The expectations of the public continue to grow as other government entities make a wealth of information, data, and services available online and accessible through mobile devices.

The Department of Technology Services has made "Responsive, Accessible, and Mobile Government" its first strategic goal. Consumers expect to be able to file a complaint using a mobile app. While the work required to develop and deploy an individual app is modest, each new app creates new operational IT workload. At current staffing levels, the PUC IT simply lacks the capacity to meet consumer expectations for responsive, accessible, and mobile government.

Growing Decision-Maker IT Needs: In addition to being able to work efficiently with businesses and transparently with consumers, the PUC needs to be able to make data readily available to decision-makers for oversight and direction to the agency. With current IT resources, the PUC is unable to provide decision-makers with the information they need in an efficient or timely fashion.

Growing Information Security Needs: As the requirements for maintaining compliance with Information Security policies have grown, the PUC has failed to keep pace.

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The PUC created the Information Security Office in 2014, using internally redirected IT staff. With existing resources, the PUC's approach to information security continues to be largely tactical and reactive. Important strategic work, such as completing an inventory of information assets or developing a Risk Management and Privacy Plan, has been delayed or deferred. The delays in completing this work put the PUC out of compliance with state information security requirements, and put its business and consumer data at risk.

An April 2015 audit by the California State Auditor identified the PUC's key deficiencies in information security planning. To come into full compliance with state information security policies, however, the PUC will need to implement and update these new security plans. This creates new operational workload that will require additional IT staff resources to perform.

Resource History
(Dollars in thousands)

ITSB Program Budget	PY - 4	PY - 3	PY - 2	PY - 1	PY
Authorized Expenditures	7,772	5,502	4,087	10,432	7,050
Actual Expenditures					
Revenues	0	0	0	0	0
Authorized Positions	41.5	43	45	45	45
Filled Positions	39.98	41.03	41.15	41.55	39.96
Vacancies	1.52	1.97	3.85	3.45	5.04

Resource Challenges

The PUC's resource history table above shows that the agency has added only four positions in the past five years, a 9 percent growth rate, which is particularly low considering the surge in requested and required services expected from IT in this digital age. This minimal growth has been offset by the difficulty of attracting IT staff to state service as noted by the vacancy rate of 11 percent in the current PY that outstrips the nominal growth rate for this period. Added to this vacancy rate are the eight (18 percent) senior staff members identified by succession planning efforts as expecting to retire within the next two years. This is an effective vacancy rate of approximately 29 percent, which is difficult to absorb with such a small IT staff. The problem with this high rate is that the work overloads the remaining resources, threatening the PUC's ability to retain valuable staff.

Currently, staffing levels are inadequate to address growing technical needs that have emerged as a result of ongoing technical advancements (see workload history table below). Major technical advancements have created expectations in the areas of transparent data and analytics and electronic servicing to the public, as well as in the ability to utilize mobile data products to strengthen the PUC's public safety presence in the field while delivering rapid information sharing; real-time reporting; and data exchange between the public, regulated utilities, and local/state/federal agencies.

Workload History

Workload Measure	PY - 4	PY - 3	PY - 2	PY - 1	PY	CY
IT Service Desk Support Ratio	99	111	104	95	119	112
Number of physical servers/appliances	210	160	150	118	125	135
Number of virtual servers/appliances	100	150	178	200	337	425
Percentage of physical servers/appliances	68%	52%	46%	37%	27%	24%
Total number of servers	310	310	328	318	462	560
Total TB of document storage	60	100	135	178	278	400
Number of Oracle enterprise applications	44	44	44	48	49	49

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Average age of Oracle applications	7.8	8.8	9.7	9.8	10.1	11.1
Projects completed	4	4	4	2	2	3
Number of field staff	162	165	201	196	202	225
Documents published to website	20,429	34,357	27,501	30,010	30,537	50,000
Number of IT procurements	213	104	269	365	339	380

C. State Level Considerations

The approval of this BCP will give ITSB the ability to provide appropriate support to PUC staff, as they carry out their work protecting public safety, promoting reliable utility services at reasonable rates, and providing transparency to the public. This proposal supports State of California IT policies listed in SAM 4800-5180. This also ties directly to all six of the California Department of Technology Service's strategic goals:

- Responsible, accessible, and mobile government. Adding infrastructure and Service Desk resources will support the PUC's efforts to improve the productivity of safety inspectors and other mobile workers. Increasing the PUC's capacity to make its work transparent and accessible to the public will also promote public participation.
- Leadership and Collaboration. The PUC uses Project Portfolio Management (PPM) to "evaluate business needs, priorities, and areas where technology can provide value and enhance service to citizens." Increasing PPM resources for delegated authority projects and reportable project work that is not covered by BCPs will allow the PUC to provide value to citizens more quickly and effectively. Increasing the PUC's capacity to produce and share management reports will allow the PUC to provide more meaningful and relevant data to decision-makers, PUC staff, regulated entities, and the public.
- Efficient and reliable infrastructure and services. The PUC needs additional IT resources to ensure provision of efficient and reliable infrastructure and services, and to avoid costly service disruptions.
- Secured information. Adding Information Security, infrastructure, and Application Portfolio Management (APM) resources will support the PUC's efforts to secure its information assets from a costly security breach.
- Capable IT Workforce. Augmenting IT staffing, in advance of the coming wave of senior IT staff retirements, will enable the PUC to ensure its IT workforce has the continuity of knowledge and skills to support both tactical and strategic work. Through succession planning activities, the IT branch has identified that eight key, senior staff members (18 percent of IT) expect to retire within the next two years.
- Responsive and effective IT project procurement. Additional IT Procurement resources will enable the PUC to ensure "IT project procurements are completed within timeframes that mitigate risk to projects."

D. Justification

This proposal addresses seven key IT areas at the PUC:

- IT Service Desk
- Information Security
- Enterprise Services and Infrastructure
- Application and Project Portfolios
- Mobility Support
- IT Acquisitions
- Enterprise Architecture

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IT Service Desk

In the PUC's current IT organization, the IT Service Desk configures and supports desktops, laptops, printers, and all mobile devices and telephones for PUC staff. The Service Desk also provides Tier 1 support for the PUC's enterprise applications.

At current staffing levels, each member of the Service Desk must support an average of 112 PUC users. This support ratio is too high to meet the service needs of PUC staff. Currently the Service Desk doesn't have a defined Service Level Agreement (SLA). Staff responds to incidents as soon as possible based on the criticality and impact on business. A service desk incident ticketing system is in place to intake, manage, and respond to incidents, but, due to lack of adequate staffing resources, the IT Service Desk has not been able to configure this system to define SLAs.

A number of other factors reflect the complexity of the PUC's work environment, acting to further reduce the Service Desk support ratio:

- Multiple office locations: The PUC currently has its headquarters in San Francisco, three satellite offices in Sacramento, one satellite office in San Francisco, and one satellite office in Los Angeles. While the Service Desk is centralized in the San Francisco headquarters, the Service Desk also maintains a physical presence in the satellite offices.
- Bring Your Own Device (BYOD) policy: Due to the rapid adoption of smartphones, tablets, and other mobile devices, and the growing need for staff to "work from anywhere," the PUC has adopted a BYOD policy. While this policy increases staff productivity, it also increases the support burden for the Service Desk.
- Remote staff: The PUC's workforce includes safety inspectors for railroads, passenger rail, electric generation and transmission infrastructure, gas pipelines, and passenger carriers. These inspectors spend more than 80 percent of their time working in the field, connecting remotely to the PUC's network to update safety databases. Due to the heavy public safety nature of their work, combined with the fact that they're always mobile and working with both a laptop and tablet, support for remote staff is high priority, requiring Service Desk staff to put off other tickets and tasks to address inspectors' IT needs.

The Service Desk provides on-site support to 48 PUC staff in the two Sacramento offices only on Fridays; the remaining four days a week, this staff must rely on remote Service Desk support. In addition, an average of 40 PUC office-based staff (not inspectors) are telecommuting on any given workday; they must rely on remote Service Desk support on telecommute days. The PUC has deployed tools such as Virtual Private Network (VPN) and Virtual Desktop Integration (VDI) to improve productivity for remote users and these tools have been embraced by PUC staff, but they have come at the cost of increased support requirements for the Service Desk.

Using Gartner methodology, the PUC calculated a target Service Desk support ratio of 85 to 1. To see how this ratio was calculated, **please refer to Attachment 3 – IT Service Desk Target Support Ratio worksheet**. At the current 112 to 1 support ratio, the Service Desk is struggling to meet the service needs of PUC staff. One result is what Boeing refers to as a "cascading productivity loss": When a user who cannot get in touch with the Service Desk turns to another user for support, the PUC goes from one person not working to two people not working.

Without appropriate Service Desk support, the PUC's policy, safety, engineering, legal, and managerial output declines. The decline in productivity, in turn, is felt by California consumers, the legislature, consumer advocacy organizations, regulated entities, and the general public.

Information Security

The State of California Government Code Section 11549.3 and SAM Section 5300.2 require all state entities to comply with the information security and privacy policies, standards, and procedures issued by the California Information Security Office.

The PUC created the Information Security Office in 2014, using a vacant Staff Information Systems Analyst position. The PUC approach to information security continues to be largely tactical and reactive. Important strategic work, such as completing an inventory of information assets or developing a risk management and privacy plan, has been delayed or deferred. The absence of these systems and

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reports puts the PUC out of compliance with state information security requirements, and puts its business and consumer data at risk. To prepare all the compliance reports for the California Information Security Office, we need to have dedicated staff to cover business continuity and technology recovery planning and testing, privacy policies, and training requirements.

The PUC does not have a dedicated IT Security team; some of the security related functions are performed by network administrators. The PUC Network Administration team consisting of three network admins is currently reporting to the Information Security Officer. With cyber security needs increasing, the PUC is in drastic need of a dedicated security team to perform information security related tasks. A recent ISO based IT Security assessment by an external vendor identified a number of gaps in the IT security plan. Without additional staff resources, the PUC will not be able to remedy these issues in the near future. In this BCP, we are requesting two additional positions for the Information Security Office.

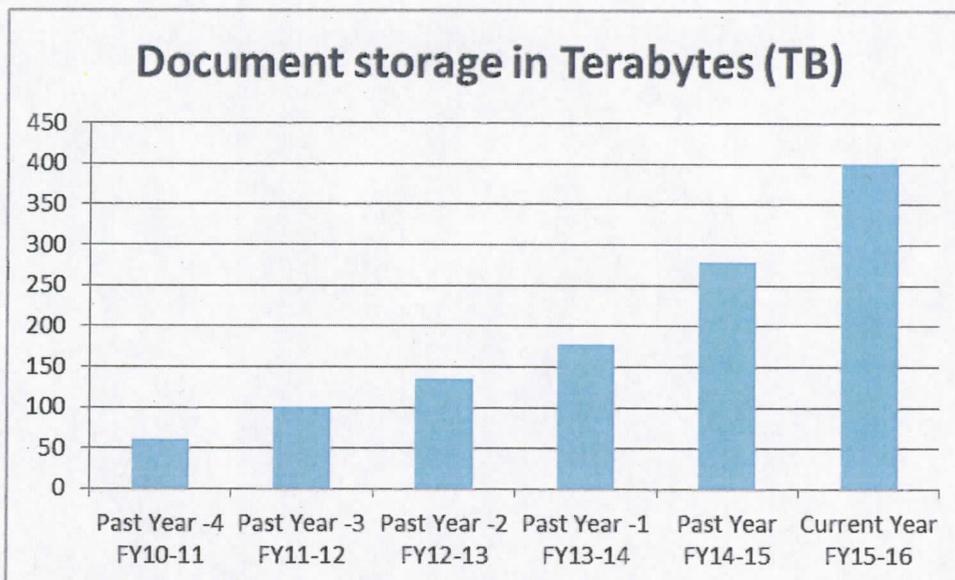
Enterprise Services and Infrastructure

The PUC has taken a number of steps over the past five years to streamline its IT infrastructure to reduce the support load for IT staff and to incrementally improve the speed, reliability, and capacity of network, server, and storage resources:

Infrastructure Increase Summary

Infrastructure Increase by year	2010	2011	2012	2013	2014	CY
Number of physical servers/appliances	210	160	150	118	125	135
Number of virtual servers/appliances	100	150	178	200	337	425
Weekly Backup	5TB	10TB	12TB	15TB	25TB	30 TB
Percentage of physical servers/appliances	68 percent	52 percent	46 percent	37 percent	27 percent	24 percent
Total number of servers	310	310	328	318	462	560
Total TB of document storage	60	100	135	178	278	450

Workload for IT infrastructure support continues to grow. One driver of the workload increase is growth in both the number and the complexity of enterprise applications. Over the past five years, growth in applications led the total number of servers supported by ITSB to grow by 81 percent, from 310 servers to 560. While virtualization reduces the per-server maintenance workload, all servers require a baseline level of support for installation of patches and updates, and troubleshooting of performance issues.



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The PUC is no exception to that larger trend. Over the past five years, the volume of document storage on network devices has grown from 60 TB to 400 TB. These numbers are cumulative, and, based on the lack of a PUC document and data retention policy, these numbers will continue to grow. With the increase in data comes additional IT workload as the Storage Area Network is reconfigured and expanded and as the scale of backup jobs increases.

At current staffing levels, the PUC must focus on the tactical work of supporting servers and storage, and upgrading the network to maintain performance. Meanwhile, important strategic IT infrastructure work remains undone. Email is one of the major applications that Enterprise Services supports. Exchange, together with MS Lync and Enterprise Vault, comprises the entire Email, Collaboration and Communication suite.

The infrastructure count is as follows:

Email (Exchange)	4 Servers
MS Lync	5 Servers
Enterprise Vault (Email Archiving)	5 Servers
Total	14 Servers
Email Size	1.4 TB
Archived Email Size	8.0 TB

With current staffing levels, we will not be able to sustain supporting and managing the growing IT delivery infrastructure. The PUC's Exchange Administrator will be retiring in 2016, making the requested positions vital, not only to support and manage the infrastructure, but to facilitate knowledge transfer to protect and secure the Exchange infrastructure. The additional staff will help and focus on the tactical work of supporting critical server and storage resources, while providing continuous monitoring and patching to maintain performance and security.

The PUC currently doesn't have an email retention policy, which prevents the agency from subscribing to CES or CA Mail since the price to maintain archived data will not be cost effective. These tasks are long term and on-going and must be performed by permanent civil service employees.

Application and Project Portfolios

The Enterprise Application Development Unit plays an important role in making the PUC more efficient by providing services that deliver custom and support vendor-supplied applications for use in the PUC's management of information and staff resources, and to meet the PUC's many regulatory and administrative requirements. Enterprise Application Development includes services for application development, design, systems analysis, coding, and maintenance. This unit provides support and maintenance of the software platforms and databases used for application delivery.

Much of the PUC's critical business data is stored and managed in 49 Oracle database applications, 21 of which are more than 10 years old (**see Attachment 4 - Application Development Unit's List and Metrics of Maintained Applications for a full list of applications and metrics**). A number of these applications provide core business data that is integrated across the agency and amongst the portfolio applications. This sample of applications handles functions such as:

- Employee Time Tracking that integrates with the State Controller's Office Time Tracking System
- Employee Organization Information Maintenance
- Position Control Tracking
- Travel and Training Authorization and Tracking for the PUC
- Regulated Utilities Contact and Authorization Tracking
- Consumer Complaint Submissions and Case Resolution with Utilities
- Transportation Carrier Certification and Fee Tracking with Web Portal for CHP and Airport Validation
- Utility Enforcement Tracking and Case Tracking
- Transportation Informal Complaint Reporting
- Docket Information and Tracking of Formal Proceeding Information
- Proposals and Advice Letter Tracking System for Informal Filings

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- Utility User Fee Tracking
- Financial Payment Tracking
- Rail Safety and Security Information Tracking and Management
- Telecommunications Fee Filing System with Reconciliation with Bank Payments

All of the data assets for these applications are managed and supported by internal IT staff. Four of the applications that were built by vendors require vendor support because the PUC does not own the source code or the code is too fragile for internal support. A small team of developers provides maintenance and updates for 92 percent of this legacy application portfolio, while still delivering additional programming services to the PUC for requested new applications. To support this legacy application portfolio, the Enterprise Application Development Unit puts pressure on the limited resources of the infrastructure team to provide server, storage, virtualization, and networking services to support development, test, production, and disaster recovery environments.

These older applications were designed to process transactions (mostly transactions manually input by staff), not to provide analysis or analytics. The design limitations of these legacy systems, combined with a shortage of programmers to update and modernize them, limit the PUC's ability to respond to the demand for electronic servicing to the public, mobilizing functionality, dashboarding work queues, management reporting, and analytics.

Modernizing these applications will provide opportunities to reach out externally and provide information on demand to the PUC's client base and the public, while collecting information directly from the source instead of having PUC staff enter data or mail out thousands of certificates, letters, notifications, etc.

The need for better management reports and data visualization to inform policy-making and resource allocation exists across all of the PUC's domain areas, including gas safety and reliability, rail safety, and consumer subsidy programs. With current resources, the PUC can provide some "quick fixes" to generate reports for decision-makers, but, without additional resources, it cannot respond with the speed and detail decision-makers expect. Increasing the PUC's capacity to produce and share management reports will allow the PUC to provide more meaningful and relevant data to decision-makers, PUC staff, regulated entities, and the public.

Support and requested enhancements for these applications, as well as developing new Oracle applications, and providing limited data analytics support is currently handled by six (6) application programmers.

The unit also provides support for full development and production environments (expanding to include testing, disaster recovery environments), which is currently handled by two (2) Database Administrator (DBA)/Middleware staff.

At current staffing levels, the PUC cannot meet the growing demand for IT solutions to support increasingly complex and data-driven policies and programs. Limited resources are focused on providing purely tactical support to existing applications, rather than upgrading, consolidating, or retiring applications based on their public value.

Mobility Support

At current staffing levels, the PUC cannot provide mobility support to its own staff, the public, or regulated entities.

For PUC staff, ITSB provides basic support for some "work from anywhere" tools, such as Virtual Private Network (VPN), Virtual Desktop Infrastructure (VDI), Outlook Web Access (OWA), and PUC issued mobile devices. Support for personal devices, however, is limited, and legacy applications are not compatible with smartphones or tablets.

All staff would benefit from mobility support, but PUC field staff, in particular, need the ability to work from anywhere; they work much more efficiently and effectively when they can view and update safety data while "on the go." With mobility support, ITSB could deliver mobile apps to field staff, enabling them to quickly and easily capture safety data, such as rail crossing accident investigation photos and interview recordings. With mobility support, field staff could also conduct inspections, audits, and site visits more frequently, even in remote areas of the state. More face-to-face contact with small, rural,

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investor-owned electric and water utilities would allow the PUC to improve the safety, reliability, and affordability of utility services for these underserved consumers.

As for consumers, mobility support is expected, and expectations are growing, as other government entities make services available online and accessible through mobile devices. The Department of Technology has made "Responsive, Accessible, and Mobile Government" its first strategic goal.

Immediate candidates for dedicated mobile applications are:

- Regulatory Utility Reporting of Safety Concerns
 - Gas Leaks
 - Electric Service Outage
 - Telecom Service Outage
- Public Submissions
 - Consumer Utility Complaints
 - Utility Hazards
 - Transportation Carrier Complaints
 - Railroad Track and Crossing Issues
- Agency Integration and Collaboration
 - CHP / DMV Portal to Verify Current Transportation Carrier Certification and Insurance
 - Airport Validation of Transportation Carrier Certification
- Utility Updates / Publication Verification
 - Transportation Carrier Current Certification, Application, and Licensing Status
 - Docket E-File Tracking
 - Publish PUC Formal Agendas to Public

The PUC lacks the capacity to provide appropriate mobility support, both to service mobile devices and to develop and support simple mobile apps, for PUC staff and consumers. As a result, the PUC not only fails to support the Department of Technology's strategic goal to support "Responsive, Accessible, and Mobile Government," the PUC also misses an important opportunity to improve staff productivity, enhance transparency, and promote public participation.

IT Acquisitions

The IT Acquisitions unit is responsible for IT procurement and contract management. Two junior staff conduct IT goods procurement, one of whom is dedicated exclusively to procurement for the Deaf and Disabled Telephony Program (DDTP); they are not qualified for conducting more complex IT service procurements in their current job classifications. The unit supervisor performs all IT service procurements, with assistance from other existing unit staff. The unit supervisor does not have a qualified backup available.

In the last five years, the workload for IT procurement and contract needs have grown substantially, while staffing has remained static. The volume of IT purchase orders has grown over the past five years. This increase is based on demand for procurement of new security requirements, hardware, and software to support a growth in IT services.

The California Department of General Services (DGS) recently performed a compliance review audit. They required ITSB to procure all IT related Deaf and Disabled Telecommunications Program (DDTP) telecommunication devices. This change has increased the volume of procurement handled by the IT Acquisition team. As a result of the DGS audit findings, the PUC is requesting a position to perform this additional work.

Increased demand and requirements for multiple devices from PUC staff has affected the total volume of procurement for hardware, software, and services during the last five years.

Another component of the increase in the volume of purchase orders is the transition from our local, on-site data center to an added offsite disaster recovery site, and then the consolidation of all off-site data center services to the Gold Camp data center.

The Department of Technology has requested all state agencies to consolidate their data centers and computer rooms in the Otech Data center located in the Rancho Cordova Gold Camp center, in addition to all public facing applications. The PUC headquarters is located in San Francisco – 85 miles

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from Gold Camp. Moving all public facing application systems and consolidating and migrating data centers to Sacramento not only has increased the number of procurements but has created an immediate need for extra PY's to be able to travel to Sacramento to support the PUC data infrastructure. An hour of local work in San Francisco now will cost a day of travel. More importantly, however, IT procurement work has become consistently more complex.

Below is a table showing the number of contracts awarded from FY13/14 through the present:

	FY 13/14	FY 14/15	FY 15/16*
# of P.O.s awarded for PUC (Both TG and TS)	362	308	142
PUC Goods	337	284	120
PUC Services	18	16	21
PUC Consulting	7	8	1
PUC NCB	2	0	0
PUC Total Dollars Spent	\$ 10,432,405.69	\$ 9,297,109.49	\$ 2,676,304.38
PUC Total Dollars Spent (Consulting Contracts)	\$ 2,927,169.75	\$ 1,908,896.64	\$ 250,000.00
# of P.O.s awarded for DDTP (Both TG and TS)	28	110	101
DDTP Goods	28	107	95
DDTP Services	0	3	6
DDTP Consulting	0	0	0
DDTP NCB	5	53	54
DDTP Total Dollars Spent	\$ 183,607.45	\$ 2,837,943.74	\$ 2,291,892.14

*6 months – This will more than double as funds are typically spent frugally in the event something unanticipated occurs, resulting in our need to spend already planned funds on other items. Biggest spend is during 4th quarter (April-June).

Please see Attachment 2 – PUC IT Project Portfolio for a list of projects that have not yet begun but will require project management, contract management, and acquisitions.

Breakdown of time it takes to conduct acquisitions:

The estimated time for the parts of the acquisition process shown below include ONLY the work performed by the person assigned in the IT Acquisitions and Project Management Office – in most cases, the Senior Information Systems Analyst (supervisor).

Solicitation Document – This is the RFO or RFQ (depending on the procurement method used). Time shown does not include that spent on the Statement/Scope of Work or Evaluation Criteria which is broken out separately. The RFO is used for Leveraged Procurement Agreements. The RFQ is used for open market solicitations.

- 15 – 30 minutes - Request for Quote for non-complex goods
- 15 – 60 minutes - Request for Offer for Leveraged Procurement agreements (goods)
- 8 – 24 hours – Request for Quote for contracts for complex goods
- 24 – 48+ hours – Request for Quote for consulting contracts

Statement/Scope of Work – Length of time required depends on the complexity and type of procurement vehicle used.

- 15 – 30 minutes (average) – IT goods
- 16 – 32 hours – Complex Goods (i.e. Everbridge and Google Appliance)

Analysis of Problem

- 40 – 80+ hours – Consulting Contracts (depends on the complexity of the work being performed by the vendor and the amount of staff/divisions impacted by the work)

Evaluation Criteria Document

- 15 minutes – IT goods is typically lowest cost – a simple Excel spreadsheet is used
- 1 – 6 hours – Complex IT goods (depending on procurement vehicle used)
- 4 – 32 hours – Consulting contracts (depending on procurement vehicle used)

Evaluation Process

- 15 – 30 minutes – IT goods
- IT Consulting – range of time depends on the number of responses received and complexity of contract work.
 - 1-8 hours – Administrative Review done by Senior Information Systems Analyst (supervisor)
 - 8 – 40+ hours – Technical Review is done by selected SMEs and other staff but the Senior Information Systems Analyst (supervisor) sits in the room to answer questions and monitor the process to ensure it is followed according to protocol.

Non-Competitive Bid or Special Category Request Forms

- 8 – 40 hours (when applicable)

The DDTP requires more Non-Competitive Bid forms as the acquisitions for specialized equipment can only be procured from one vendor (i.e. mouthpieces for constituents that can only activate the phone by mouth in a specific manner like blowing, tongue, lips, etc.). Speech Generating Devices are designed exclusively for one individual as the needs for qualified constituents are unique in each case.

At current IT staffing levels, the PUC cannot support the Department of Technology's strategic goal of ensuring "IT project procurements are completed within timeframes that mitigate risk to projects."

Enterprise Architecture (EA)

To comply with the California Department of Technology Services recommendation and requirement, the PUC is requesting a Systems Software Specialist III (supervisor) position to establish the Enterprise Architecture Office.

On August 1, 2013, the California Information Technology Council (ITC) released the California Enterprise Architecture Framework Version 2.0 that recommends to all agencies to establish a position of Enterprise Architect to improve the effective and efficient management and oversight of the application of information technology to the operations of state agencies.

The PUC needs to effectively define, implement, and follow the recommendation of establishment of an Enterprise Architect office which will perform the following functions to improve the quality of the services offered by ITSB:

- Bridge the gap between business strategy and technology implementation: By defining the target business processes and IT assets required to satisfy the business objectives, along with a roadmap for reaching that target, EA provides a clear vision to implement business strategy and helps reduce ad hoc implementations driven by a tactical and reactive approach.
- Improve alignment of IT with mission, goals, and objectives: By identifying how IT assets directly enable business processes and how those processes execute the organization's mission, EA promotes IT solutions that are more pertinent and relevant for the business.
- Improve service delivery, business operations, and business capabilities: Adoption of EA results in streamlining business processes and in making IT operations more efficient. EA processes help identify gaps in business capabilities (such as business analytics and case management) and provide a long-term vision to improve and/or acquire those capabilities.
- Improve interoperability and information sharing: By defining enterprise-wide standards and specifications for how systems will "talk to each other," EA makes the job of integrating multiple systems and sharing information easier.
- Improve flexibility to dynamically respond to customer needs and statutory changes: EA enables faster design of new systems and extensions to existing systems by pre-defining

Analysis of Problem

standards. By advancing service orientation, EA promotes creation of user applications as a composition of reused services, which results in faster adaptation to changes.

- Reduce cost and cost of ownership: EA enables economies of scale in purchasing and reduces training requirements and support costs by establishing a less complex environment (due to technical homogeneity), which is easier to support and results in faster repairs.
- Reduce redundancy, duplication, complexity and information silos: EA enables portfolio rationalization and simplification to promote more effective use of IT and other resources to efficiently support business processes.
- Reduce business risk associated with IT and reduce risk for future IT investment: Focus on strategic goals allows EA to identify weaknesses and threats in the existing IT portfolio and to address them in the target architecture. The risk of future IT investments not delivering business value is greatly reduced when investments are made in accordance with a well-defined enterprise roadmap.
- Enable faster, simpler and cheaper procurement: By defining the target architecture and a roadmap, EA facilitates an “architect – invest – implement” approach that simplifies procurement decisions and ensures architectural coherence of multi-vendor solutions.
- Enable predictable success of projects and realization of their defined objectives: EA promotes undertaking projects within the context of a defined enterprise roadmap. EA provides guidance to these projects to ensure their progress towards the target architecture and to help realize their defined business objectives.

EA also provides the following Services:

- Assist with business strategy and IT strategy for portfolio rationalization
- Design and plan of an actionable roadmap (Enterprise Roadmap) for the PUC
- Assist with project prioritization to help drive business forward and improve program outcomes
- Assist with concept and business case development
- Standards establishment and governance
- Solution architecture guidance and oversight

Positions Requested

24 new full-time permanent positions in ITSB:

- Two (2) – Systems Software Specialist III (Supervisor)
- Three (3) – Systems Software Specialist III (Technical)
- Ten (10) – Systems Software Specialist II (Technical)
- Two (2) – Data Processing Manager I
- Two (2) – Staff Information Systems Analyst (Supervisor)
- Four (4) – Associate Information Systems Analyst (Specialist)
- One (1) – Office Technician (General)

For more information on the workload allocated to each position, **please see Attachment 5 – Workload Analysis and Attachment 6 – IT Restructuring Workload Table.**

Justification for position allocation

- **IT Service Desk:**
 - One (1) Staff Information Systems Analyst (Supervisor) will serve as a backup in the IT Service Desk Manager’s absence, lead and mentor staff, as well as provide Tier 1 end-user support and provide tutorials and orientation for enterprise applications.
 - One (1) Systems Software Specialist II (Technical) will serve as SCCM administrator to provide updates, upgrades, and patches for Microsoft, browsers, and all other applications on end user’s equipment.
 - One (1) Associate Information Systems Analyst will provide on-site support to users in Sacramento and support for remote field personnel. This position will provide backup to Staff Information Systems Analyst in the Los Angeles office and will be responsible for

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monitoring the data center, which houses mission critical applications as a backup disaster recovery site, ensuring the data center is operating at the optimal level.

- **Information Security Office (ISO):**
 - One (1) Systems Software Specialist III (Technical) will be responsible for disaster recovery/business continuity and will serve as privacy officer.
 - One (1) Systems Software Specialist II (Technical) will act as an information security analyst, monitor incident response, and handle PRA requests.
- **Network and Security:**
 - One (1) Systems Software Specialist III (Supervisor) will manage and provide technical leadership for the network and security teams.
 - Two (2) Systems Software Specialist II (Technical) will perform critical information security tasks including firewall administration and security incident and event management, as well as regular network scanning.
- **IT Acquisition:**
 - Two (2) Data Processing Manager I will conduct contract management in addition to other functions outlined on the attached workload analysis spreadsheet.
 - One (1) Staff Information Systems Analyst (Supervisor) will supervise acquisitions staff and business analysts along with additional work outlined in the attached workload analysis worksheet.
 - One (1) Associate Information Systems Analyst will conduct IT acquisitions plus additional work outlined in the attached workload analysis worksheet.
- **Website and Enterprise Applications:**
 - Two (2) Software Systems Specialist II (Technical) will assist with web development tasks, as detailed in the attached workload analysis worksheet.
- **Enterprise Services:**
 - Two (2) Software Systems Specialist II (Technical) will be responsible for the timely deployment and management of all security patches for our multi-platform environment (Windows and Linux) and supporting PUC Exchange systems.
 - Two (2) Associate Information Systems Analysts will be responsible for maintaining PUC equipment and the health of the data centers which are located in multiple locations (Gold Camp, San Francisco, Natomas, and Los Angeles).
- **Enterprise Application Development:**
 - Two (2) Software Systems Specialist II (Technical) will assist with enterprise application development tasks, as detailed in the attached workload analysis worksheet.
 - Two (2) Software Systems Specialist III (Technical) will assist with enterprise application development tasks, as detailed in the attached workload analysis worksheet.
- **Chief Information Officer (CIO) Office:**
 - One (1) Systems Software Specialist III (Supervisor), as an Enterprise Architect, will provide assistance with business and IT strategy and portfolio rationalization, with the design and plan of an actionable roadmap (Enterprise Roadmap) for PUC, and with project prioritization to help drive business forward and improve program outcomes.
 - One (1) Office Technician, under the general direction of the CIO, will perform a wide range of administrative and secretarial duties, including preparing, reviewing, and tracking all correspondence; independently composing and developing summaries and reports; coordinating the schedule and calendar; making travel arrangements; and maintaining various subject files.

For more information on the workload allocated to each position, please see Attachment 5 – Workload Analysis and Attachment 6 – IT Restructuring Workload Table.

Analysis of Problem

E. Outcomes and Accountability

An approved Budget Request will provide the PUC with the resources to build its IT operational capacity. With this increased capacity, the PUC can better support its mission-critical programs, ensure information security, provide public transparency, and inform decision-makers in a timely manner.

The expected outcomes of an approved Budget Request are:

- A stronger information security posture, reducing the risk of an information security breach, catastrophic data loss, and business interruption
- Provision of efficient and reliable infrastructure and services, even as demand for these services continues to grow
- A reduction in the size and age of the application portfolio, in order to reduce IT “maintenance debt” due to years of deferred application upgrades and enhancements
- Improved mobility support, particularly for field staff who work on the front lines protecting public safety
- Increased responsiveness to decision-makers, providing them more timely access to the right data and documents in the right context
- Completion of timely IT acquisitions, in support of IT projects and public programs
- An IT Service Desk support ratio much closer to the target support ratio of 85 to 1, allowing the PUC staff to operate more efficiently and effectively

Projected Outcomes

Workload Measure	CY	BY	BY+1	BY+2	BY+3	BY+4
IT Service Desk Support Ratio	112	88	90	92	94	96
Number of physical servers/appliances	135	136	137	138	139	140
Number of virtual servers/appliances	425	434	443	452	461	470
Percentage of physical servers/appliances	24%	24%	24%	23%	23%	23%
Total number of servers	560	570	580	590	600	610
Total TB of document storage	400	550	800	1,100	1,500	2,200
Number of Oracle enterprise applications	49	49	47	45	43	41
Average age of Oracle applications	11.1	11	10	10	9	9
IT projects completed	3	2	4	5	4	5
Number of field staff	240	245	250	255	260	265
Documents published to website	50,000	51,000	52,000	53,000	54,000	55,000
Number of IT contracts	380	390	400	410	420	430

Analysis of Problem

F. Analysis of All Feasible Alternatives

Alternative 1: Approve Budget Request

Cost: \$3,370,000 and 24 Positions

Pros: The additional resources requested in this BCP will provide the PUC with the resources to build its IT operational capacity. With this increased capacity, the PUC can better support its mission-critical programs, ensure information security, provide public transparency, and inform decision-makers. Approving this request will allow the PUC to ensure a stronger information security posture, reducing the risk of an information security breach, catastrophic data loss, and business interruption; the provision of efficient and reliable infrastructure and services, even as demand for these services continues to grow; the provision of improved mobility support, particularly for field staff working on the front lines protecting public safety; increased responsiveness to decision-makers, providing them more timely access to the right data and documents in the right context; the ability to complete IT acquisitions, in support of IT projects and public programs in a timely matter.

Cons: Without these resources, the PUC will continue to under deliver on the expectations of its staff, the public, and its regulated utilities in supporting its mission-critical programs, ensuring information security, providing public transparency, and efficiently informing decision-makers.

Alternative 2: Maintain Status Quo and Deny Request

Cost: \$0

Pros: No additional increase in cost.

Cons: Risk of an information security breach, catastrophic data loss, and business interruption will increase. A security breach at the PUC could expose sensitive energy supply and pricing information, literally moving markets and subjecting millions of California consumers to higher costs and rolling blackouts. The IT Service Desk support ratio will continue to increase, and PUC staff productivity will continue to suffer, as a result. The current ratio, 112 to 1, is already 32% higher than the PUC's target support ratio of 85 to 1. The PUC will be unable to meet the growing demand for mobility support from "digital natives," both within its employee ranks and in the general public. Members of the public and decision-makers will continue to experience delays and dead-ends, as they attempt to obtain relevant information from the PUC. The PUC will be unable to complete timely IT procurements in support of IT projects and public programs.

Alternative 3: Procure consulting services to perform some of the work described in this proposal.

Cost: \$5.3 Million

Pros: Short time and temporary solution

Cons: This approach carries extremely high short-term costs. The going rate for consultants with the relevant skills and experience ranges from \$100 per hour (for data center, procurement, and service desk support) to \$200 per hour (for information security, project management, business analysis, Oracle development, web development, and database administration). This alternative does not build institutional knowledge or capacity in the IT workforce – which the PUC must do in order to prepare for pending retirements of key senior IT staff. In fact, bringing a large number of consultants on board may undermine succession planning efforts, by directing knowledge transfer toward contracted resources rather than permanent staff.

G. Implementation Plan

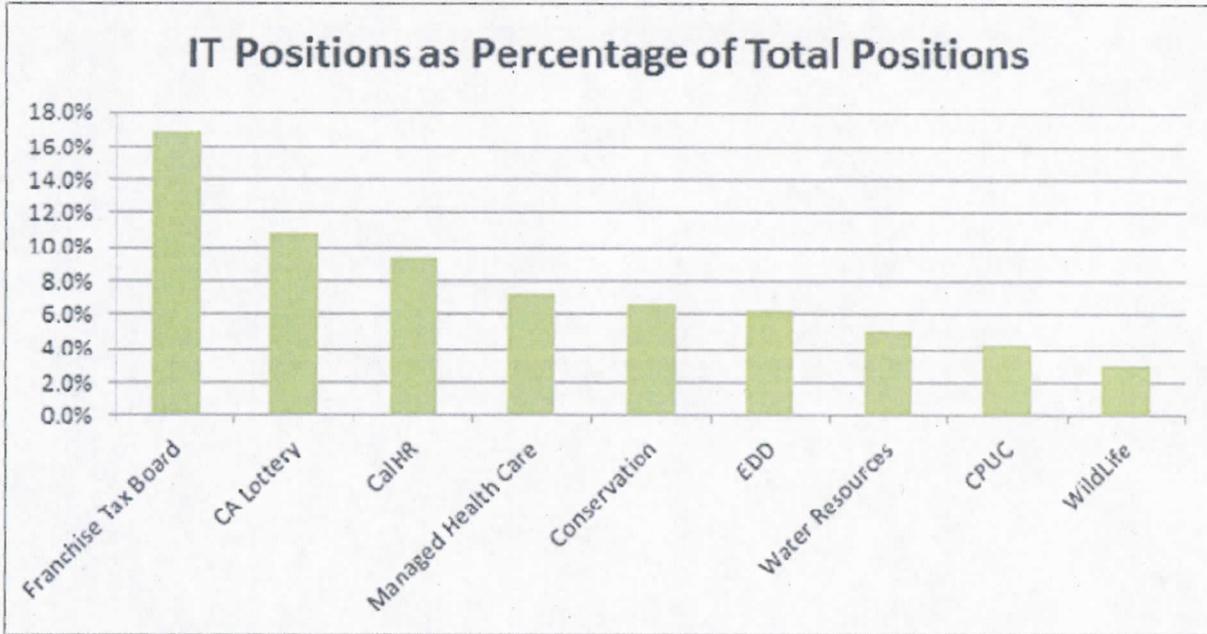
If this proposal is approved, the PUC will begin recruiting in July of 2016 and will complete interviews and hiring of qualified candidates by November 1, 2016.

Special funds will be used for these positions. The standard complement (for equipment, facilities, training, etc.) is incorporated into the staffing cost estimates.

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Recommendation

We recommend alternative #1, providing 24 permanent full-time positions. This will make the PUC's IT staffing consistent with the staffing models of comparable state agencies (see chart below). It will reduce the risk of public safety utility related issues, increase information security posture, and allow critical functions to continue to operate efficiently. Alternative #2 will only increase the backload of work on both day-to-day and vital projects that we're already experiencing, and alternative #3 defeats the purpose of succession planning by eliminating the next generation of IT staff at the PUC by permitting the senior staff to retire without being able to pass along their knowledge and experience.



CALIFORNIA PUBLIC UTILITIES COMMISSION

FISCAL YEAR 2016-17

Spring Finance Letter #1

CPUC IT Re-structuring

Positions Requested FY 2016-17	Workload	Workload Standard	Basis for Standard
2 Data Processing Manager I (DPM1)	The DPM1's primary responsibilities include coordinating contract management services between the IT Acquisitions unit and Project Managers on IT projects to ensure deliverables are properly delivered according to the contract management plan, provide advice to the Project Managers, manage vendors and resolve contract disputes.	<ul style="list-style-type: none"> • Manage portfolio. <ul style="list-style-type: none"> ○ 66 hours/FY • Vendor management. <ul style="list-style-type: none"> ○ 792 hours/FY • Dispute resolution. <ul style="list-style-type: none"> ○ 66 hours/FY • Invoice and deliverables validation. <ul style="list-style-type: none"> ○ 66 hours/FY • Advise the Project Managers <ul style="list-style-type: none"> ○ 66 hours/FY • Attend project meetings <ul style="list-style-type: none"> ○ 132 hours/FY • Collaborating with procurement <ul style="list-style-type: none"> ○ 66 hours/FY • Create contract management plan <ul style="list-style-type: none"> ○ 858 hours/FY 	Existing programs with similar responsibilities.
Total 4,224 hours/FY=2 Positions at 2,112 hours/FY			
1 Staff Information Systems Analyst (Supervisor)	The Staff Information Systems Analyst directly supervises the work of Unit staff, coordinates the Unit's work with other Information Services Branch Units and other Commission divisions, as necessary, and actively participates as a member of the Information Services Branch management team. The Staff Information Systems Analyst's primary responsibilities include controlling and monitoring the IT budget, processing complex procurements, writing Request for Offers, evaluating offers, awarding contracts, negotiate contracts, dispute resolution, conferring with legal and stakeholder management.	<ul style="list-style-type: none"> • Supervise existing business analyst staff and procurement staff. <ul style="list-style-type: none"> ○ 1175 hours/FY • Maintain and update business analysis methodology and tools. <ul style="list-style-type: none"> ○ 26 hours/FY • Attend management meetings. <ul style="list-style-type: none"> ○ 398 hours/FY • Compliance Reporting (to Dept of Technology, etc.). <ul style="list-style-type: none"> ○ 26 hours/FY • IT Budget Control Officer (approvals, tracking) <ul style="list-style-type: none"> ○ 132 hours/FY 	Existing programs with similar responsibilities.

- Fi\$cal approver
 - 53 hours/FY
- Maintain procurement tools and best practices
 - 66 hours/FY
- Manage CPUC stakeholders
 - 106 hours/FY
- Evaluate offers
 - 26 hours/FY
- Negotiate contracts
 - 26 hours/FY
- Consult with Legal
 - 26 hours/FY
- Dispute resolution
 - 26 hours/FY
- Prepare and submit annual reports to control agencies
 - 26 hours/FY

Total 2,112 hours/FY=1 Positions at 2,112 hours/FY

1 Associate Information Systems Analyst (Specialist)

The Associate Information Systems Analyst is responsible to be a liaison between the CPUC business Divisions and the IT Acquisitions Unit. Responsibilities handling procurement activities, manage CPUC stakeholders and assisting existing Project Managers and Business Analysts.

- Write procurement documents
 - 792 hours/FY
- Develop vendor pool
 - 26 hours/FY
- Conduct solicitations
 - 132 hours/FY
- Award contracts and process purchase orders
 - 264 hours/FY
- Maintain asset inventory
 - 158 hours/FY
- Maintain procurement logs and files
 - 106 hours/FY
- Dispute resolution
 - 26 hours/FY
- Assist project managers and business analysts
 - 528 hours/FY

Existing programs with similar responsibilities.

- Manage CPUC stakeholders
 - 79 hours/FY

Total 2,112 hours/FY=1 Positions at 2,112 hours/FY

Enterprise Application Development

1 System Software Specialist III (Technical) - Enterprise Application Architect - Lead Application Developer

This System Software Specialist (SSS) II (Technical) will function as the Lead Oracle Developer for Application Portfolio Support and Maintenance. The SSS II will lead the team for maintenance and support for the CPUC's existing large portfolio of Legacy applications in Oracle Forms and Reports or Oracle Application Express (APEX). He/she will help with the migration of existing Oracle reports objects to the new reporting platform. This position will be key in Enterprise Application Development's strategy to maintain support of its large roster of legacy applications built in Oracle Forms and Reports while migrating onto a more supportable platform.

- Analyze application portfolio (service requests, usage, aging, trends) and manage lifecycle of applications; Identify applications due for update/retirement/replacement and lead in managing application transformation.
 - 111 hours/FY
- Works with business executives and end-users to conceptualize a new application project, recommends technical resources and strategies, and then designs the requirements for the project to work within the CPUC's standardized toolset/platforms.
 - 222 hours/FY
- Lead review of application requirements and design documents for feasibility and adherence to in-house and State standards.
 - 167 hours/FY
- Manage preparation or review of technical documents, as well as in the preparation, review and evaluation of control agency technical documents.
 - 56 hours/FY
- Work with the Enterprise Architecture Committee and with the Project Management Office, to assist end-users in identifying and defining problems or needs that utilize information technology as a solution; examine alternative approaches to solving problems; scope and estimate time and level of effort for scheduling of purposes.

Existing programs with similar responsibilities.

- **222 hours/FY**
- Direct the design of new applications from conception to completion and oversee the technical staff involved with the development project; Provide oversight, validation, and approval of all application designs.
- **666 hours/FY**
- Proactively lead development and documentation of enterprise reusable code modules, in-house best practices, and coding standards, while enforcing adherence to best practices, coding standards, and documentation standards.
- **111 hours/FY**
- Evaluate, approve, and manage deployment of new tools or coding languages to meet the strategic goals of the Commission and State guidelines.
- **56 hours/FY**
- Train and assist other application developers on application development, programming techniques, and application maintenance methodology; ensure cross-training of staff for purposes of application support.
- **111 hours/FY**
- Maintain best practice documentation for application security; responsible for recommendations and design enhancements to improve application security, performance and reliability.
- **56 hours/FY**

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

1 System Software
Specialist II (Technical) -
Data Analytics and BI
Management Reporting

- Lead provision of services for data set handling , data loading, and data request scoping for CPUC data requests.
- **56 hours/FY**
- Lead BI visualization Services: Creation of

Existing programs with similar responsibilities.

visualizations, location diagramming of point data and other graphical representations of data and be able to work with all levels of management

- **611 hours/FY**
- Create training program and provide ongoing CPUC user training on analytics, BI and management reporting.
 - **56 hours/FY**
- Provide outreach and training on data warehouse Oracle Application Express (APEX) and self-service development in a web enabled space.
 - **56 hours/FY**
- Plan for and manage upgrade existing management reports for enterprise applications (e.g., convert stored database procedure report to individual PDF report)
 - **222 hours/FY**
- Develop new management reports and querying tools for enterprise applications (Analyze requests; review documented requirements and design; develop, test, and publish management reports and querying tools).
 - **555 hours/FY**
- Train developers on use and deployment of complicated BI Publisher reports.
 - **56 hours/FY**
- Troubleshoot BI Publisher reporting problems for the team and maintain procedures and best practices.
 - **56 hours/FY**
- Maintain documentation on deployment methods for advanced BI Publisher environment, deployment and usage.
 - **111 hours/FY**

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

1 System Software
Specialist II (Technical) -

- Provide maintenance for CPUC existing Existing programs with similar responsibilities.

Oracle Developer for
Application Portfolio
Support

portfolio of Legacy applications in Oracle
Forms and Reports or APEX.

- **666 hours/FY**
- Migrate existing Oracle reports objects to BI Publisher.
 - **222 hours/FY**
- Migrate existing Oracle Forms applications to APEX/ADF.
 - **444 hours/FY**
- Develop and unit test application code; Develop and unit test application bug fixes.
 - **167 hours/FY**
- Perform data migration.
 - **56 hours/FY**
- Perform system and regression testing
 - **56 hours/FY**
- Perform dataset mapping and loading to attach to Intelligence tools and reporting for existing applications.
 - **56 hours/FY**
- Manage development of project documentation/requests for all efforts to meet control agency requirements.
 - **56 hours/FY**
- Maintain system documentation.
 - **56 hours/FY**

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

1 System Software
Specialist III (Technical) -
DBA/Middleware Support
for DevOps

- Serve as a technical lead in troubleshooting highly complex technical database and server problems.
 - **222 hours/FY**
- Management of source code repository and automated application release/patching.
 - **56 hours/FY**
- Management and documentation of information assets for control agency reports

Existing programs with similar responsibilities.

- **56 hours/FY**
- Create, maintain, test disaster recovery procedures and documentation for recovery and control agency reports. orders
 - **56 hours/FY**
- Provide for and maintain information and data security across platform and data sources; Maintain documentation and handling of PII and sensitive Data for control agencies reports.
 - **56 hours/FY**
- Work in a lead capacity in performing database, Oracle Fusion Middleware, and other software installations, upgrades and security patching; capacity planning
 - **333 hours/FY**
- Lead in the preparation or review of technical documents, as well as in the preparation, review and evaluation of control agency documents; Maintain system and application development delivery architecture documentation
 - **111 hours/FY**
- Maintain best practices and process documentation.
 - **56 hours/FY**
- Provide real time monitoring and support of production, test, development, and DR environments for all deployed resources.
 - **444 hours/FY**
- Provide integration planning and support for required data services to supply required information integration across platforms.
 - **56 hours/FY**
- Provide mitigation of Legacy delivery issues to align with future cloud deployment.
 - **111 hours/FY**
- Oracle Application Express (APEX) management, support, release, patching.

222 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

IT Service Desk

1 Systems Software Specialist II

The Systems Software Specialist 1 (SSS1) is responsible for patching and pushing updates and applications to all Commission desktops and laptops. The SSS1 is responsible for the administration and creation of scripts and packages; ensure all critical security updates are up to date for the Operating System, Microsoft Office, browsers and other applications deployed at the enterprise level. The SSS1 is responsible for the configuration, the application push and testing of updates.

- SCCM Administration
 - 222 hours/FY
- Critical Security Updates (creating script, packages)
 - 888 hours/FY
- Test pushed update and new configuration
 - 444 hours/FY
- Application, Configuration push
 - 222 hours/FY

Existing programs with similar responsibilities.

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

1 Staff Information Systems Analyst (Supervisor)

The Staff Information Systems Analyst (Supervisor) (SISA) will be a backup for the IT Service Desk manager; supervise the work of staff; and coordinate with other Information Services Branch Units. The SISA's primary responsibilities include prioritize IT service tickets assigned to IT Service Desk staff and mentor and supervise the staff. The SISA will provide both Tier 1 end-user support of enterprise applications, and configure and deploy IT equipment to the end users.

- Supervise, prioritize ticket assignment, mentor
 - 888 hours/FY
- Tier 1 End User support
 - 888 hours/FY

Existing programs with similar responsibilities.

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

1 Associate Information Systems Analysts

The AISA's provide hardware (desktops, laptops, printers and scanners) support which includes imaging, deploying, troubleshooting and configuring equipment. Software support includes antivirus, encryption, VPN and Operating System support. The AISA provides application

- Hardware support
 - 444 hours/FY
- Network Support
 - 155.4 hours/FY
- Application Support, Training

Existing programs with similar responsibilities.

training to support the end users. The AISA will support multiple Sacramento satellite offices and our remote field staff in Northern California.

- 932.4 hours/FY
- IT Service Desk Documentation
 - 22.2 hours/FY
- Audio Visual Support
 - 222 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Systems Software Specialist III (Supervisor)
Enterprise Architect

Bridge the gap between business strategy and implementation, Improve alignment of IT with mission, goals, and objectives, Improve service delivery, business operations and business capabilities, Improve interoperability and information sharing, Improve flexibility to dynamically respond to customer needs and statutory changes, Reduce cost and cost of ownership, Reduce redundancy, duplication, complexity and information silos, Reduce business risk associated with IT and reduce risk for future IT investment, Enable faster, simpler and cheaper procurement.

- Assist with Business Strategy and IT Strategy o Portfolio Rationalization
 - 444 hours/FY
- Design and Plan of an Actionable Roadmap (Enterprise Roadmap) for CPUC
 - 444 hours/FY
- Assist with Project Prioritization to help Drive Business Forward and Improve Program Outcomes
 - 222 hours/FY
- Assist with Concept and Business Case Development
 - 222 hours/FY
- Standards Establishment and Governance
 - 222 hours/FY
- Solution Architecture Guidance and Oversight
 - 222 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Office Technician (General)

Under the general direction of the CIO, the Office Technician performs a wide range of

- Act as liaison with the Human

administrative and secretarial duties with minimal direction and maximum latitude for independent action. The incumbent will prepare, review, and track all correspondence, independently composing and developing correspondence, summaries and reports, coordinate the schedule and calendar, make travel arrangements, and maintain various subject files. The incumbent also serves as a member of the ITSB support Branch team, assisting other sections with telephones, correspondence, and support workload as necessary.

Resources Branch concerning personnel related issues

- 222 hours/FY
- Coordinate with ITSB supervisors in facilitating personnel transactions for technical and professional staff utilizing hiring policies and procedures
 - 111 hours/FY
- Complete Requests for Personnel Action packages requiring detailed knowledge of hiring process
 - 111 hours/FY
- Revise and update organization charts and duty statements as directed by the Branch Chief
 - 111 hours/FY
- Coordinate with the ITSB, Branch Chief, and branch supervisors the completion of probation reports, performance appraisals, and annual Incompatibility Activities Certifications.
 - 227.5 hours/FY
- Manage vacancy and position reports to ensure vacant positions are not lost by the branch
 - 166.5 hours/FY
- Provide assistance to the AGPA with auditing program reports created for the Budget Office, Division and Financial Services Branch
 - 222 Hours/FY
- Create quarterly ITSB Newsletter utilizing various desktop publishing software, distribute electronically and post to the ITSB webpage

o 222 Hours/FY
Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Enterprise Services

Systems Software Specialist II(Technical)
Enterprise Services

This Systems Software Specialist II (Technical) will provide ongoing systems software support for Mobility Management, Remote Connectivity (VPN), Exchange Client Connectivity (BYOD) and Systems Administration (AD)

- Mobility Support
 - o 444 hours/FY
- Virtual Private Network Support
 - o 444 hours/FY
- Exchange – Client Support BYOD
 - o 444 hours/FY
- Systems Administration
 - o 444 hours/FY

Existing programs with similar responsibilities.

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Systems Software Specialist II(Technical)
Enterprise Services

This Systems Software Specialist II (Technical) will provide ongoing systems software support for Storage Management, Virtual Desktop Support (VDI), Patching and Firmware Upgrade and Data Center Support

- SAN Administration – Client Connectivity
 - o 444 hours/FY
- Virtual Desktop Support
 - o 444 hours/FY
- Patching and OS Security
 - o 444 hours/FY
- Data Center Support
 - o 444 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Associate Information Systems Analyst
Enterprise Services

This Associate Information Systems Analyst will provide ongoing systems administration support for the Los Angeles Site and Data Center.

- Backup and Recovery
 - o 444 hours/FY
- Application Support
 - o 444 hours/FY
- System Admin – Los Angeles
 - o 444 hours/FY
- Data Center Support-Los Angeles

- 444 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Associate Information Systems Analyst
Enterprise Services

This Associate Information Systems Analyst will provide ongoing systems administration support for the Sacramento- Otech (TMS)

- Backup and Recovery
 - 444 hours/FY
- Application Support
 - 444 hours/FY
- System Admin – Los Angeles
 - 444 hours/FY
- Data Center Support-Sac and Otech (TMS) Site
 - 444 hours/FY

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Web and Application Development

Systems Software Specialist II(Technical)

This Systems Software Specialist II (Technical) will provide ongoing support to CPUC's Web and Application Infrastructure.

- Website Design and Development
 - 444 hours/FY
- SQL Admin
 - 222 hours/FY
- Content Management
 - 222 hours/FY
- Document Search and Retrieval enhancement
 - 222 hours/FY
- ADA Accessibility- Multi Lingual Accessibility
 - 222 hours/FY
- User Training
 - 222 hours/FY

Existing programs with similar responsibilities.

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

Systems Software Specialist II(Technical)

This Systems Software Specialist II (Technical) will provide ongoing support to CPUC's Web and Application Infrastructure.

- Update/retire/replace aging web forms
 - 444 hours/FY
- .net Development
 - 222 hours/FY
- Website Support
 - 444 hours/FY

- Mobile Apps design and development (Apple/Android)
 - 222 hours/FY

- SharePoint Design and Admin
 - 444hours/FY

Existing programs with similar responsibilities.

Total 1,776 hours/FY=1 Positions at 1,776 hours/FY

ISO

Systems Software Specialist III (Technical) Disaster Recovery and Privacy Officer

Develop, maintain and test Technology recovery plan, business continuity plan, disaster recovery plan. Privacy and risk management Develop and update privacy policies. Conduct privacy, security awareness training. Perform internal security audits and Information technology asset and protection management

- Develop and maintain Business Continuity and Technology Recovery Plan
 - 720 Hours/FY
- Security Compliance, control agency reporting, Project security oversight, security audits, asset protection and management
 - 528 Hours/FY
- Develop and maintain Security Policies
 - 288 Hours/FY
- Develop Privacy Policy, conduct privacy and security awareness training
 - 240 Hours/FY
- Respond to eDiscovery request

Existing programs with similar responsibilities.

		<ul style="list-style-type: none"> ○ 96 Hours/FY • Total 1776 Hours/FY= 1PY 	
Systems Software Specialist II (Technical) Information Security Analyst	Respond to PRA request, eDiscovery requests, prepare security documentation and respond to security incidents.	<ul style="list-style-type: none"> • Incident response <ul style="list-style-type: none"> ○ 288 Hours/FY • Security Documentations <ul style="list-style-type: none"> ○ 288 Hours/FY • Respond to PRA requests <ul style="list-style-type: none"> ○ 1152 Hours/FY • Respond to eDiscovery requests <ul style="list-style-type: none"> ○ 96 Hours/FY • Total 1824 Hours/FY= 1PY 	Existing programs with similar responsibilities.
Network Security			
Systems Software Specialist III (Supervisor) Network and Security Manager	Technical Lead for Network and security unit, network design, provide guidance and training to network and security staff. Provide security oversight for IT projects.	<ul style="list-style-type: none"> • Manage Network and Security unit, coordinate with other units to ensure optimal network availability • 1776 Hours/FY= 1PY 	Existing programs with similar responsibilities.
Systems Software Specialist II (Technical) Information Security Analyst	Network security engineer to manage, firewall, web filter, IPS, spam filter, SIEM and Network security devices. Information security assets inventory and updates. Respond to eDiscovery requests and provide security	<ul style="list-style-type: none"> • Firewall, web filter and email spam filter administration <ul style="list-style-type: none"> ○ 1104 Hours/FY • Update security policies and Documentation <ul style="list-style-type: none"> ○ 576 Hours/FY • Business continuity and TRP testing <ul style="list-style-type: none"> ○ 720 Hours/FY • Security Incident and Event Management <ul style="list-style-type: none"> ○ 1056 Hours/FY • Manage IPS and Network remediation <ul style="list-style-type: none"> ○ 528 Hours/FY • Total 3984 Hours/FY= 2.24 PY 	Existing programs with similar responsibilities.

Adapted from "TechRepublic Real World Guide: Improving Help Desk Service Levels"

(A) Start with "Mean Index Value" established by Gartner Research

Running Total

70 to 1	70 If you have a single OS and established standards for hardware purchases	70
45 to 1	0 If you have a variety of operating systems and no standards for hardware	

(B) Add or subtract, as directed, to update your organization's target support ratio

-15	0 If the users have administrative control of the supported hardware	70
-10	-10 If all your users are not in walking distance	60
	If your users test software on the desktops versus a lab and you are expected	
-15	0 to support them	60
-10	-10 If you support a Bring Your Own Device policy	50
10	10 If you restrict most users from administrative control	60
	If you completely restrict administrative control	
5	0 (not giving your power users some control seems to add more work)	60
20	5 If you deploy software to users remotely via tools like SMS	65
15	5 If your administrators use a remote control tool	70
15	15 If you clone PCs	85
15	15 If you have a centralized IT service desk	100
	If you are part of a large organization and have distributed support	
5	0 (administrators deployed at the service level)	100

(C) Reduce support ratio by the percentage of remote users, to calculate Target Support Ratio

What percentage of users must IT Service Desk support remotely (i.e., Service Desk does not have the means to directly access the PC without travel by the user or Service Desk staff)?

For example, if 50% staff must be supported remotely, then reduce the 15% support ratio by half.

85

TARGET SUPPORT RATIO 85

Enterprise Services

Daily, Weekly and Monthly Task List

	Daily Support Hours	Weekly Onetime Support	Monthly	Year	Required PY
TSU Management (supervisory)	8		176	1776	1
Application Support.ALJ App	2		44	528	0.297297297
Application Support.Content Server	2		44	528	0.297297297
Application Support.-Accellion	2		44	528	0.297297297
Exchange/AD.Account	4		88	1056	0.594594595
Exchange/AD.Archive	2		44	528	0.297297297
Exchange/AD.BYOD	4		88	1056	0.594594595
Exchange/AD.Calendar	2		44	528	0.297297297
Exchange/AD.Email Not Received	2		44	528	0.297297297
Exchange/AD.Enterprise Vault-Archived Email Access	2		44	528	0.297297297
Exchange/AD.Mailbox Access	2		44	528	0.297297297
Exchange/AD.Mailbox Increase	2		44	528	0.297297297
Exchange/AD.Other	2		44	528	0.297297297
Exchange/AD.Restore	2		44	528	0.297297297
Remote Access.VDI Support	1	4	26	312	0.175675676
Remote Access.VPN Support	1	4	22	264	0.148648649
Server.Backup	2	4	48	576	0.324324324
Server.Connectivity	1		22	264	0.148648649
Server.New Connection	1		22	264	0.148648649
Server.Other	1		22	264	0.148648649
Server.Recover	1		22	264	0.148648649
Server.SAN	1		22	264	0.148648649
Server.Snapshot	2	2	46	552	0.310810811
Site Access	1		22	264	0.148648649
Web Dev.Issues Content Server	2	2	46	552	0.310810811
Web Dev.Issues Other	2	2	46	552	0.310810811
Web Dev.Issues Permissions	2		44	528	0.297297297
Web Dev.Issues Web Publishing	2		44	528	0.297297297
Web Dev.Outage Applications	2		44	528	0.297297297
Web Dev.Outage Other	2		44	528	0.297297297
Web Dev.Outage Site/Page	1		22	264	0.148648649
Web Dev.User Training	2		44	528	0.297297297
Web Dev.Web Site Content	2		44	528	0.297297297
Web Dev.Web Site Design	2		44	528	0.297297297
Web Dev.Web Site Other	2		44	528	0.297297297

Web Dev.Web Site/App/Form	2		44	528	0.297297297
Web Dev.Web Site/Database	2		44	528	0.297297297
Web Dev.Web Site/Application	2		44	528	0.297297297
Web Dev.Web Site/Security	2		44	528	0.297297297
Web Dev.Web Site/New Application Development Request	2		44	528	0.297297297
Infrastructure- DNS	2		44	528	0.297297297
Infrastructure- DHCP	1		22	264	0.148648649
Infrastructure-INFOBLOX	2		44	528	0.297297297
Infrastructure- SPAM FILTER	2		44	528	0.297297297
Infrastructure- Bluecoat	2		44	528	0.297297297
Operations.Alarms	2		44	528	0.297297297
Operations.Backup	2		44	528	0.297297297
Operations.Other	2	4	48	576	0.324324324
Operations.Backup - Tape management	2		44	528	0.297297297
Operations.Server Maintenance/Support	2	8	52	624	0.351351351
Operations.Other (cleaning, organizing, updating documentation, etc.)	2		44	528	0.297297297
Operations.Data Center Support - other locations	2	8	52	624	0.351351351
	4	8	96	1152	0.648648649
Total	107	42	2396	28416	16

Project Management Office

Positions Requested in this BCP

Task List

The following DPM1 positions are necessary for managing contracts and will support four existing Project Managers and IT Acquisition staff on long term projects:

	Daily Support Hours	Weekly Onetime Support	Monthly	Year	PY Year	Required PY
DPM1 - Contract management						
Managing portfolio (including project intake and S1BAs)	0.25		5.5	66	56	0.04
Vendor management	3		66	792	666	0.45
Dispute resolution	0.25		5.5	66	56	0.04
Invoice and deliverables validation	0.25		5.5	66	56	0.04
Advise the Project Managers	0.25		5.5	66	56	0.04
Attend project meetings	0.5		11	132	111	0.07
Collaborating with procurement	0.25		5.5	66	56	0.04
Create contract management plan	3.25		71.5	858	722	0.48
Less administrative leave calculation				-336		
			176	1776	1776	1.19
DPM1 - Contract management						
Managing portfolio (including project intake and S1BAs)	0.25		5.5	66	56	0.03
Vendor management	3		66	792	666	0.40
Dispute resolution	0.25		5.5	66	56	0.03
Invoice and deliverables validation	0.25		5.5	66	56	0.03
Advise the Project Managers	0.25		5.5	66	56	0.03
Attend project meetings	0.5		11	132	111	0.07
Collaborating with procurement	0.25		5.5	66	56	0.03
Maintain and train the contract management plan	3.25		71.5	858	722	0.43
					1776	1.06
Staff Information Systems Analyst (Supervisor)						
Supervising existing business analyst staff and procurement staff	4:25		93.5	1122	944	0.56
Maintain and update BA methodology and tools	0.1		2.2	26.4	22	0.01
Attend management meetings	1.5		33	396	333	0.20
Compliance Reporting (to Dept of Technology, etc.)	0.1		2.2	26.4	22	0.01

IT Budget Control Officer (approvals, tracking)	0.5	11	132	111	0.07
Fi\$cal Approver	0.2	4.4	52.8	44	0.03
Maintain procurement tools and best practices	0.25	5.5	66	56	0.03
Manage CPUC stakeholders	0.4	8.8	105.6	89	0.05
Evaluate offers	0.2	4.4	52.8	44	0.03
Negotiate contracts	0.2	4.4	52.8	44	0.03
Consult with Legal	0.1	2.2	26.4	22	0.01
Dispute resolution	0.1	2.2	26.4	22	0.01

Prepare and submit annual reports to control agencies	0.1	2.2	26.4	22	0.01
			2112	1776	1.06

Associate Information Systems Analyst (Specialist)

Write procurement documents	3	66	792	666	0.13
Develop vendor pool	0.1	2.2	26.4	22	0.01
Conduct solicitations	0.5	11	132	111	0.27
Award contracts and process Purchase Orders	1	22	264	222	0.40
Maintain asset inventory	0.6	13.2	158.4	133	0.13
Maintain procurement logs and files	0.4	8.8	105.6	89	0.05
Dispute resolution	0.1	2.2	26.4	22	0.01
Assist Project Managers and business analysts	2	44	528	444	0.01
Manage CPUC stakeholders	0.3	6.6	79.2	67	0.04
	8	176	2112	1776	1.06

Current Critical Unit Workload

Task List	Daily Support Hours	Weekly Onetime Support	Monthly	Year	Required PY
Supervising and managing unit	8		176	1776	1.0
Contract management (see details above)	16		352	3888	2.2
Active IT project - PM	32		704	8112	4.6
Active IT project - BA	18		396	4416	2.5
Active IT project - user adoption	2		44	528	0.3

Production support - BA	2	44	528	0.3
Production support - user adoption	2	44	528	0.3
Compliance Reporting (to Dept of Technology, etc.)	0.1	16	192	0.1
IT Acquisitions Supervision (see details above)	8	16	192	0.1
Procurement.Order Status	2	44	528	0.3
Procurement.Dispute Resolution	2	44	528	0.3
Procurement.IT Consulting Services	4	88	1056	0.6
Procurement.DDTP	8	176	1776	1.0
Procurement.Order Status & File Management	4	88	1056	0.6
Procurement.Invoice Processing/File Closure	2	44	528	0.3
Procurement.Control Agency Reports/Documents	2	44	528	0.3
Total	112.1	0	2320 26160	14.7

Network and Security Section

Daily Tasks and Functions	Daily Support Hours	Weekly Onetime Support	Monthly	Year	Required PY
Team Supervision					
Security. Malware -detection remediation	8		176	1776	1
Security-Two Factor Authentication	1		22	264	0.148648649
Security-Access control	1		22	264	0.148648649
Security- Managed PKI		8	8	96	0.054054054
Security- Encryption		16	16	192	0.108108108
Security- MDM		8	8	96	0.054054054
Security- Identity management		16	16	192	0.108108108
Security. Hawkeye	0.5		11	132	0.074324324
Security- SIEM	1		22	264	0.148648649
Security- Certificates	4		88	1056	0.594594595
Security - IPS		8	8	96	0.054054054
Security-Email Spam Filter	2		44	528	0.297297297
Security- Web Filter	1		22	264	0.148648649
WiFi. Connectivity	2		44	528	0.297297297
WiFi-External	1	2	24	288	0.162162162
WiFi- Clearpass- internal	1		22	264	0.148648649
Network. Connectivity	1		22	264	0.148648649
Network. DNS	2	4	48	576	0.324324324
Network. Firewall	1	2	24	288	0.162162162
Network. Move	2	4	48	576	0.324324324
Network. New Connection	1	4	26	312	0.175675676
Network- Solarwinds	1		22	264	0.148648649
Network. Port Security	1.5		33	396	0.222972973
Network- LAN	0	8	8	96	0.054054054
Network-Hardware maintenance		2	2	24	0.013513514
Network-WAN connectivity	0.5	2	13	156	0.087837838
Network-WAN accelerator		2	2	24	0.013513514
Network. Web Filter		4	4	48	0.027027027
Remote Access. VDI support	1		22	264	0.148648649
Remote Access. VPN support	2	4	48	576	0.324324324
Network Diagrams	1		22	264	0.148648649
Network Load Balancer		4	4	48	0.027027027
	0	16	16	192	0.108108108
Total	36.5	114	917	10668	6.006756757

Web Development

Daily, Weekly and Monthly Task List

	Daily Support Hours	Weekly Onetime Support	Monthly	Year	Required PY
Section Supervision	8		176	1776	1
EverBridge Paging Notification System	1		22	264	0.148648649
Sharepoint Development	8		176	1776	1
Web Dev.Issues Content Server	2	2	46	552	0.310810811
Web Dev.Issues Other	2		44	528	0.297297297
Web Dev.Issues Permissions	2		44	528	0.297297297
Web Dev.Issues Web Publishing	2		44	528	0.297297297
Web Dev.Outage Applications	2		44	528	0.297297297
Web Dev.Outage Other	1		22	264	0.148648649
Web Dev.Outage Site/Page	2		44	528	0.297297297
Web Dev.User Training	2		44	528	0.297297297
Web Dev.Web Site Content	2		44	528	0.297297297
Web Dev.Web Site Design	2		44	528	0.297297297
Web Dev.Web Site Other	2		44	528	0.297297297
Web Dev.Web Site/App/Form	2		44	528	0.297297297
Web Dev.Web Site/Database	2		44	528	0.297297297
Web Dev.Web Site/Application	2		44	528	0.297297297
Web Dev.Web Site/Security	2		44	528	0.297297297
Web Dev.Web Site/New Application Development Request	2		44	528	0.297297297
Total	31	2	1058	12024	6.77027027

ISO/DR/BCP/TRP/

Daily Tasks and Functions	Daily Support Hours	Weekly Onetime Support	Monthly	Year	Required FY
Information Security Officer	8		176	1776	1.00
Business Continuity /Technology Recovery/Privacy Officer	8		176	1776	1.00
Technology Recovery Planning	1	8	30	360	0.202702703
Technology Recovery Testing	1	8	30	360	0.202702703
Business Continuity Planning	1	8	30	360	0.202702703
Business Continuity Testing	1	8	30	360	0.202702703
Security Policies	0	16	16	192	0.108108108
Intrusion Detection/ Vulnerability Scan	0	16	16	192	0.108108108
Security. EDiscovery	0	8	8	96	0.054054054
Security PRA	4	8	96	1152	0.648648649
Security - Incident Response	0	24	24	288	0.162162162
Security-Documentation	0	24	24	288	0.054054054
Security- Communication and OpsMgmt		8	8	96	0.054054054
Security- Awareness training		8	8	96	0.054054054
Security- Compliance		4	4	48	0.027027027
Security- IT project oversight		8	8	96	0.054054054
Security-Data classification		8	8	96	0.054054054
Security-Asset protection and management		8	8	96	0.054054054
Security-Privacy-Training		4	4	48	0.027027027
Security-Privacy-policy development		8	8	96	0.054054054
Security-Privacy Risk management		8	8	96	0.054054054
Security-Control Agency Reporting	0	8	8	96	0.054054054
Security- internal audits	0	8	8	96	0.054054054
Total	20	208	512	5472	3.08

CIO Direct Report

	Average Daily Support Hours	Weekly Onetime Support	Average Monthly	Average Year	Required # of PY
CIO					
Office Technician (General)	8		176	1776	1.00
Enterprise Architect Systems Software Specialist III (Supervisor)	8		176	1776	1.00
	8		176	1776	1.00
Total;	24		528	5328	3.00
Enterprise Architect Tasks and Functions					
Assist with Business Strategy and IT Strategy o Portfolio Rationalization	2		44	444	
Design and Plan of an Actionable Roadmap (Enterprise Roadmap) for CPUC	2		44	444	
Assist with Project Prioritization to help Drive Business Forward and Improve Program Outcomes	1		22	222	
Assist with Concept and Business Case Development	1		22	222	
Standards Establishment and Governance	1		22	222	
Solution Architecture Guidance and Oversight	1		22	222	
Total	8		176	1776	1.00
Office Technician (General)					
Act as liaison with the Human Resources Branch concerning personnel related issues	1		22	222	
Coordinate with ITSB supervisors in facilitating personnel transactions for technical and professional staff utilizing hiring policies and procedures	0.5		11	111	
Complete Requests for Personnel Action packages requiring detailed knowledge of hiring process	0.5		11	111	
Prepare and ensure new employee hiring packets are complete	0.5		11	111	
Revise and update organization charts and duty statements as directed by the Branch Chief	0.5		11	111	
Coordinate with the ITSB, Branch Chief, and branch supervisors the completion of probation reports, performance appraisals, and annual Incompatibility Activities Certifications.	1		22	222	
Manage vacancy and position reports to ensure vacant positions are not lost by the branch	0.75		16.5	166.5	
Develop and conduct training for Branch staff on personnel matters such as appointment processes, freeze exemption criteria, examination processes, and other personnel policies and procedures	1.25		27.5	277.5	
Provide assistance to the AGPA with auditing program reports created for the Budget Office, Division and Financial Services Branch	1		22	222	
Create quarterly ITSB Newsletter utilizing various desktop publishing software, distribute electronically and post to the ITSB webpage	1		22	222	
Total	8		176	1776	1.00

Attachment 3 - CPUC IT Project Portfolio

Score	Project Name	Project Type	Primary Customer	Vendor Support	Status	Project Requested Internally	Project Start	Project End	Mandated by Law/ Audit	Public-Facing	Safety Benefit	eFAST	Reportable Project (>\$1M)
10	eFAST	IT Infrastructure	Multiple	Bluecrane + PCG	4 - Active	2014	2015-04	2018-07		♦		♦	♦
10	Transportation Carrier E-Filing	Core Agency Work	SED	PCG	4 - Active	2013	2014-10	2017-12		♦	♦	♦	♦
8	Redesign CPUC Public Website	Business Support	Executive	SymSoft + Future State	4 - Active	2013	2014-11	2018-02	♦	♦		♦	♦
8	COPS	Core Agency Work	Multiple*	Future State	4 - Active	2007	2009-06	2015-09		♦			
8	Informal Submissions	Core Agency Work	Multiple*	MVC	4 - Active	2012	2014-10	2018-05		♦		♦	♦
7	Program Claims Management System (PCMS)	Core Agency Work	CD	Bluecrane	4 - Active	2012	2014-10	2018-06		♦		♦	♦
5	Prepaid Mobile Telephony Service Surcharge Collection (MTS)	Core Agency Work	CD	Infiniti + Mcorp + Taborda	4 - Active	2014	2014-11	2018-10	♦	♦		♦	♦
9	CAB Reports	Core Agency Work	CSID		3 - Approved	2014	2017-01						
9	RSSIMS Bulk Update	Core Agency Work	SED		3 - Approved	2013	2015-09		♦		♦		♦
8	Online Utility Fee Payment	Core Agency Work	Administrative Services		3 - Approved	2014	2018-01		♦	♦		♦	♦
8	TUFFS Enhancements	Core Agency Work	CD		3 - Approved	2013	2017-06			♦		♦	♦
8	Energy Database	Core Agency Work	Energy		3 - Approved	2014	2018-03			♦		♦	♦
7	Agenda Server replacement	Core Agency Work	ALJ		3 - Approved	2013	2016-04			♦		♦	♦
7	Position Control	Business Support	Administrative Services		3 - Approved	2014	2018-03			♦		♦	♦
7	Utility Safety and Reliability DB Modernization	Core Agency Work	SED		3 - Approved	2013	2017-02			♦		♦	♦
6	Hearing Room Setup	Business Support	ALJ		2 - Tiger Team	2014				♦			
6	PD Distribution	Core Agency Work	ALJ		2 - Tiger Team	2014				♦			
6	VOIP Contact Identification	Core Agency Work	CSID		2 - Tiger Team	2014				♦			
5	Daily Calendar Application	Core Agency Work	ALJ		2 - Tiger Team	2014				♦			
2	Issue Tracker Upgrade	Business Support	CSID		2 - Tiger Team	2012				♦			
1	Learning Management System	Business Support	Admin Services		2 - Tiger Team	2014				♦			
0	Smart Mentoring Software	Business Support	Admin Services		2 - Tiger Team	2014				♦			
5	CIMS Change Order 3A	Core Agency Work	CSID		1 - Scored	2014							
3	Safety Management System	Business Support	Admin Services		1 - Scored	2014							
3	E-Filing Confidential Documents	Core Agency Work	ALJ		1 - Scored	2012							
2	CIS Rewrite	Core Agency Work	ALJ		1 - Scored	2010				♦			
-2	Employee Exit Checklist	Business Support	Administrative Services		1 - Scored	2012				♦			♦
-2	Form 700 Automation	Business Support	Executive		1 - Scored	2013			♦				

Department of Finance
2016-17
Finance Letter Worksheet

8660-001-0042-2016

Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1

Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

Operating Expenses and Equipment

Total Category Changes

Positions

0.0

0.0

Whole Dollars

149,000

\$149,000

Program Changes

6690 Regulation of Transportation

6690073 Crossing Safety

Total Program Changes

0.0

0.0

0.0

149,000

149,000

\$149,000

Fund Changes

Amount Funded by 8660-001-0042-2016

Net Impact to Item

0.0

0.0

149,000

\$149,000

ASM CONSULTANT: CG

SEN CONSULTANT: FCB

POF ANALYST: Kathy Madison

LAO DIRECTOR: BB

SCENARIO: April Revision

VERSION: Finance Working

RUN DATE: Mar 28, 2016 11:48 AM

Department of Finance
2016-17
Finance Letter Worksheet

8660-001-0046-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	87,000
Total Category Changes	0.0	\$87,000

Program Changes

6690 Regulation of Transportation	0.0	87,000
6690064 Rail Transit Safety	0.0	87,000
Total Program Changes	0.0	\$87,000

Fund Changes

Amount Funded by 8660-001-0046-2016	0.0	87,000
Net Impact to Item	0.0	\$87,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
LAO DIRECTOR: BB
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8660-001-0461-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	422,000
Total Category Changes	0.0	\$422,000

Program Changes

6690 Regulation of Transportation	0.0	422,000
6690046 Transportation Licensing and Enforcement	0.0	266,000
6690055 Freight Safety	0.0	156,000
Total Program Changes	0.0	\$422,000

Fund Changes

Amount Funded by 8660-001-0461-2016	0.0	422,000
Net Impact to Item	0.0	\$422,000

ASM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0462-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1

Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Salaries and Wages	24.0	1,876,000
Staff Benefits	0.0	774,000
Operating Expenses and Equipment	0.0	-888,000
Total Category Changes	24.0	\$1,762,000

Program Changes

6680 Regulation of Utilities	0.0	1,762,000
6680055 Energy	0.0	1,148,000
6680064 Water/Sewer	0.0	257,000
6680073 Communications	0.0	357,000
9900 Administration - Total	24.0	0
9900100 Administration	24.0	3,370,000
9900200 Administration - Distributed	0.0	-3,370,000
Total Program Changes	24.0	\$1,762,000

Fund Changes

Amount Funded by 8660-001-0462-2016	24.0	1,762,000
Net Impact to Item	24.0	\$1,762,000

ASM CONSULTANT: CG
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8660-001-0464-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	10,000
Total Category Changes	0.0	\$10,000
Program Changes		
6685 Universal Service Telephone Programs	0.0	10,000
6685010 California High-Cost Fund-A Program	0.0	10,000
Total Program Changes	0.0	\$10,000
Fund Changes		
Amount Funded by 8660-001-0464-2016	0.0	10,000
Net Impact to Item	0.0	\$10,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0470-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	8,000
Total Category Changes	0.0	\$8,000
Program Changes		
6685 Universal Service Telephone Programs	0.0	8,000
6685019 California High-Cost Fund-B Program	0.0	8,000
Total Program Changes	0.0	\$8,000
Fund Changes		
Amount Funded by 8660-001-0470-2016	0.0	8,000
Net Impact to Item	0.0	\$8,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0471-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	29,000
Total Category Changes	0.0	\$29,000

Program Changes

6685 Universal Service Telephone Programs	0.0	29,000
6685028 Universal Lifeline Telephone Service Program	0.0	29,000
Total Program Changes	0.0	\$29,000

Fund Changes

Amount Funded by 8660-001-0471-2016	0.0	29,000
Net Impact to Item	0.0	\$29,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0483-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	54,000
Total Category Changes	0.0	\$54,000

Program Changes

6685 Universal Service Telephone Programs	0.0	54,000
6685037 Deaf and Disabled Telecommunications Program	0.0	54,000
Total Program Changes	0.0	\$54,000

Fund Changes

Amount Funded by 8660-001-0483-2016	0.0	54,000
Net Impact to Item	0.0	\$54,000

ASM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0493-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	31,000
Total Category Changes	0.0	\$31,000
Program Changes		
6685 Universal Service Telephone Programs	0.0	31,000
6685055 California Teleconnect Fund Program	0.0	31,000
Total Program Changes	0.0	\$31,000
Fund Changes		
Amount Funded by 8660-001-0493-2016	0.0	31,000
Net Impact to Item	0.0	\$31,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-0890-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	196,000
Total Category Changes	0.0	\$196,000
Program Changes		
6680 Regulation of Utilities	0.0	93,000
6680055 Energy	0.0	93,000
6690 Regulation of Transportation	0.0	103,000
6690064 Rail Transit Safety	0.0	103,000
Total Program Changes	0.0	\$196,000
Fund Changes		
Amount Funded by 8660-001-0890-2016	0.0	196,000
Net Impact to Item	0.0	\$196,000

ASM CONSULTANT: CG
SEN CONSULTANT: FCB
DOF ANALYST: Kathy Madison
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8660-001-3089-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	578,000
Total Category Changes	0.0	\$578,000

Program Changes

6680 Regulation of Utilities	0.0	578,000
6680019 Office of Ratepayer Advocates	0.0	578,000
Total Program Changes	0.0	\$578,000

Fund Changes

Amount Funded by 8660-001-3089-2016	0.0	578,000
Net Impact to Item	0.0	\$578,000

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SEN CONSULTANT: FCB
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8660-001-3141-2016
Prop 98: N

DEPT: Public Utilities Commission
STATE OPERATIONS

8660-101-BCP-BR-2016-A1 Information Technology Restructuring

Proposal Summary

Add resources for the Information Technology Services Branch.

Category Changes

	Positions	Whole Dollars
Operating Expenses and Equipment	0.0	44,000
Total Category Changes	0.0	\$44,000

Program Changes

6685 Universal Service Telephone Programs	0.0	44,000
6685064 California Advanced Services Fund Program	0.0	44,000
Total Program Changes	0.0	\$44,000

Fund Changes

Amount Funded by 8660-001-3141-2016	0.0	44,000
Net Impact to Item	0.0	\$44,000

SM CONSULTANT: CG
SEN CONSULTANT: FCB
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