

eFiling Administration Support (eFAST)

Feasibility Study Report

June 03, 2015

State of California

Public Utilities Commission



Document Revision History

Date	Version	Description	Author
06/08/2015	0	Initial Submission to Dept. of Technology	CPUC
08/13/2015	1	Addressed Dept. of Technology Issues	CPUC
10/8/2015	2	Shifted Procurement start from 10/1 to 11/2 per Department of Technology guidance	CPUC
10/30/2015	3	Addressed Dept. of Technology Issues	CPUC



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1.0 Executive Approval Transmittal

Feasibility Study Report Executive Approval Transmittal		
State Entity Name		
Public Utilities Commission		
Project Title		Department of Technology Project Number
eFiling Administration Support		8660-080
Project Acronym	State Entity Priority	Agency Priority
eFAST	2	2

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

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

I have reviewed and agree with the information in the attached FSR.

I certify the acquisition of the applicable information technology (IT) product(s) or service(s) required by my Agency/state entity that are subject to Government Code 11135 applying Section 508 of the Rehabilitation Act of 1973 as amended meets the requirements or qualifies for one or more exceptions (see following pages).



APPROVAL SIGNATURES		
Information Security Officer		Date Signed
Printed name:	Jesse Mann	
Acting Chief Information Officer		Date Signed
Printed name:	Jesse Mann	
Budget Officer		Date Signed
Printed name:	Audrey Kitzes	
State Entity Director		Date Signed
Printed name:	Michelle Cooke	
Agency Information Officer		Date Signed
Printed name:	N/A	



1.1 Information Technology Accessibility Certification

Yes or No

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

Yes or No	Accessibility Exception Justification
No	The Proposed IT project meets the definition of a national security system.
No	The Proposed IT project will be located in spaces frequented only by service personnel for maintenance, repair, or occasional monitoring of equipment (i.e., "Back Office Exception.")
No	The Proposed IT acquisition is acquired by a contractor incidental to a contract.

Exceptions Requiring Alternative Means of Access for Persons with Disabilities

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



Exceptions Requiring Alternative Means of Access for Persons with Disabilities

Yes or No	Accessibility Exception Justification
No	<p>No solution is available to meet the requirements for the IT project that does not require a fundamental alteration in the nature of the product or its components.</p> <p>Explain:</p> <p>Describe the alternative means of access that will be provided that will allow individuals with disabilities to obtain the information or access the technology.</p>



Executive Summary

The California Public Utilities Commission (CPUC or Commission) regulates privately owned public utilities operating in the State of California, and performs mission-critical regulatory work, such as maintaining official judicial records; implementing regulation of electric, natural gas, water, telecommunications, railroad, rail transit, and passenger transportation entities; and ensuring timely processing of payments associated with Commission regulations. One of the key functions that support this work involves the filing of documents (such as reports, Advice Letters, applications, or program claims) by regulated entities. This function is currently conducted using manual processes and, in many cases, using non-electronic documents. The CPUC would like to automate the filing of these documents. To do so, the CPUC proposes a standard, enterprise-wide technology platform, using a common architecture and strategy, upon which IT applications for electronic filings (e-filings) and submissions of documents and data will reside. The California Department of Technology (Department of Technology) has instructed the CPUC to develop this standard platform before designing and building any further, new e-filing applications.

The overall vision for the proposed E-Filing Administration Support (eFAST) solution is to support the Commission's work in protecting public safety, promoting reliable utility service at reasonable rates, and increasing transparency to the public, while improving business processes and transparency within the CPUC. Ultimately, the eFAST solution will provide the technology platform that enables the replacement of current systems and processes that are cumbersome and paper-driven.

The eFAST platform will support the intake, routing, tracking, disposition, and statusing of both formal and informal submissions of reports, filings, and other data and documents to the CPUC. Future, separate projects will implement the functionality and business rules to automate e-filing of specific types of submissions. The eFAST platform supports Assembly Bill (AB) 1182 and AB 2408 by allowing businesses to interact with the CPUC via the internet, and by consolidating disparate business need solutions into a single architectural platform.

A feasibility study was undertaken to analyze potential technology solutions for the eFAST platform, estimate project costs and schedule, and select the preferred solution. The recommendation of this feasibility study is to develop the eFAST platform using a configurable, best of breed toolset that will integrate with the CPUC's current technology infrastructure.

The proposed solution will be implemented in four phases:

- Phase 1) Installation and Setup
- Phase 2) Platform Configuration
- Phase 3) Platform Integration
- Phase 4) Pilot



Following the successful pilot, the eFAST platform will be made available to support three subordinate projects: Transportation Carrier Portal (TCP), Informal Submissions Portal (ISP), and the Program Claims Management System (PCMS), each of which is presented in separate Feasibility Study Reports (FSR).



2.0 Project Summary Package

2.1 Section A: Executive Summary

1.	Submittal Date	June 8, 2015
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		FSR	PSP Only	Other:
2.	Type of Document	✓		
	Project Number	8660-080		

			Estimated Project Dates	
3.	Project Title	eFiling Administration Support	Start	End
	Project Acronym	eFAST	11/2/2015	6/26/2017

4.	Submitting Agency/State Entity	California Public Utilities Commission (CPUC)
5.	Reporting Agency	N/A



6.	Proposed Solution
<p>To achieve the desired platform of functional capabilities which will support the CPUC’s business needs, the CPUC proposes to implement and configure a Best of Breed Toolset to create the eFAST platform. The proposed solution will utilize commercially available tools from Oracle that are compatible with and will integrate with both the current and future CPUC infrastructure (see Section 4.2 Technical Environment). The toolset will be implemented by a combination of state personnel, contracted personnel, and primary solution vendor resources. Organizational change management and training activities will be employed to reduce the impact of business process change on the organization and external parties affected by the new system. The web access portal will be hosted at the Department of Technology State data center and the production system will be hosted at the CPUC production data center. The CPUC intends to migrate production services to the Department of Technology State data center.</p>	

8.	Major Milestones	Est. Complete Date
	Project Start	11/2/2015
	Phase 1 – Installation and Setup	5/19/2016
	Procurement – All vendor resources complete	6/27/2016
	Requirements Validation	9/27/2016
	System Design	12/2/2016
	System Planning	2/1/2017
	Phase 2 – Platform Configuration	3/20/2017
	Phase 3 – Platform Integration	3/24/2017
	Phase 4 – Pilot	6/26/2017
	Project End	6/26/2017
	PIER	5/30/18
	Key Deliverables	
	Project Master Schedule	7/29/2016
	Project Management Plan	8/16/2016
	Risk Management Plan	9/19/2016
	Requirements Validation	9/27/2016
	System Design	11/11/2016
	Test Plan	11/15/2016
	Change Management Plan	12/2/2016
	Training Plan	12/16/2016
	System Test Acceptance	4/24/2017



7.	Project Objectives
<ul style="list-style-type: none">• Objective (S1BA 1.1) – Efficiencies to program operations: Reduce the amount of staff time devoted to intake and processing of Informal Submissions by 60% within 6months of project completion. Start with an Advice Letter metric, then apply to other informal submission types.• Objective (S1BA 1.2) – Efficiencies to program operations: Reduce the amount of staff time devoted to clerical work by 30% while increasing accuracy within 6 months of project completion.• Objective (S1BA 2.1) – Efficiencies to program operations: Reduce manual and clerical workload of CHCF A and CHCF B claim and voucher by 30% while improving accuracy within 1 year of project completion.• Objective (S1BA 3.1) – Efficiencies to program operations: Reduce manual and clerical workload of CASF (Grants) claim and voucher processing by 20% while increasing accuracy within 1 year of project completion.• Objective (S1BA 4.1) – Efficiencies to program operations: Reduce manual and clerical workload of CASF (Consortia) claim and voucher processing by 40% while increasing accuracy within 1 year of project completion.• Objective (S1BA 5.1) – Efficiencies to program operations: Reduce manual and clerical workload of CTF claim and voucher processing by 50% while increasing accuracy within 1 year of project completion.• Objective (S1BA 6.1) – Efficiencies to program operations: Reduce manual and clerical workload of DDTP claim and voucher processing by 50% while increasing accuracy within 1 year of project completion.• Objective (S1BA 7.1) – Efficiencies to program operations: Reduce manual and clerical workload of LifeLine claim and voucher processing by 30% while increasing accuracy within 1 year of project completion.• Objective (S1BA 8.1) – Efficiencies to program operations: Reduce the average, perapplication, intake workload for TEB staff by 25% within 1 year of project completion.• Objective (S1BA 8.2) – Efficiencies to program operations: Reduce the equipment update processing workload for TEB staff by 75% within 1 year of project completion.• Objective (S1BA 9.1) – Efficiencies to program operations: Reduce the elapsed processing time, from application filing to approval, by 60% for passenger carriers with seating capacity of 10 or less within 1 year of project completion.• Objective (S1BA 9.2) – Efficiencies to program operations: Reduce the elapsed processing time, from application filing to approval, by 42% for passenger carriers with seating capacity of more than 10 within 1 year of project completion.• Objective (S1BA 10.1) – Efficiencies to program operations: Reduce the number of silo'd applications in order to maximize specialized IT skills across multiple applications within 12 months of implementation.• Objective (S1BA11.1) – Efficiencies to program operations: Eliminate password reset requests from regulated entities by providing self-service resets and multiple profiles per entity.• Objective (S1BA 11.2) – Efficiencies to program operations: Reduce the turnaround time for a password reset by enabling the regulated entity to reset their own passwords.	



2.2 Section B: Project Contacts

Project #	8660-080
Doc. Type	FSR

Executive Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Director	Michelle	Cooke	415	703-2163		415	703-1758	michelle.cooke@cpuc.ca.gov
Budget Officer	Audrey	Kitzes	415	703-2046		415	703-1758	audrey.kitzes@cpuc.ca.gov
Acting CIO	Jesse	Mann	415	703-1509		415	703-1758	jesse.mann@cpuc.ca.gov
Project Sponsor	Michelle	Cooke	415	703-2163		415	703-1758	michelle.cooke@cpuc.ca.gov
Information Security Officer	Jesse	Mann	415	703-1509		415	703-1758	jesse.mann@cpuc.ca.gov
Contract Manager	Jody	Pocta	415	703-2899		415	703-1758	jody.pocta@cpuc.ca.gov

Direct Contacts



	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Doc. prepared by	LeAnne	Scott	916	425-3491		916	682-4660	lascott@pcgus.com
Primary Contact	Steven	Allen	415	703-5133		415	703-1758	Steven.allen@cpuc.ca.gov

2.3 Section C: Project Relevance to State and/or Departmental Plans

1.	What is the date of your current Technology Recovery Plan (TRP)?	Date	1/2015
2.	What is the date of your current Agency Information Management Strategy (AIMS)?	Date	8/2006
3.	For the proposed project, provide the page reference in your current AIMS and/or strategic business plan.	Doc.	N/A
		Page #	N/A

Project #	8660-080
Doc. Type	FSR

		Yes	No
4.	Is the project reportable to control agencies?	✓	
If YES, CHECK all that apply:			
✓	a) The project involves a budget action.		
	b) A new system development or acquisition that is specifically required by legislative mandate or is subject to special legislative review as specified in budget control language or other legislation.		
✓	c) The estimated total development and acquisition cost exceeds the Department of Technology's established Agency/state entity delegated cost threshold and the project does not meet the criteria of a desktop and mobile computing commodity expenditure (see SAM 4989 – 4989.3).		
✓	d) The project meets a condition previously imposed by the Department of Technology.		



2.4 Section D: Budget Information

Project #	8660-080
Doc. Type	FSR

Budget Augmentation Required?										
No										
Yes	✓	If YES, indicate fiscal year(s) and associated amount:								
		FY	15/16	FY	16/17	FY	17/18	FY		Total
		\$		\$3,421,499		\$1,274,171		\$		\$4,695,670

PROJECT COSTS

1.	Fiscal Year	15/16	16/17	17/18			TOTAL
2.	One-Time Cost	\$ 581,625	\$3,811,146				\$4,392,771
3.	Continuing Costs		\$ 18,000	\$1,274,171			\$1,292,171
4.	TOTAL PROJECT BUDGET	\$ 581,625	\$3,829,146	\$1,274,171	\$	\$	\$5,684,942

PROJECT FINANCIAL BENEFITS

5.	Cost Savings/Avoidances	\$ (581,625)	\$ (3,829,146)	\$ (1,274,171)	\$	\$	\$ (5,684,942)
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6.	Revenue Increase	\$ 0	\$ 0	\$ 0	\$	\$	\$ 0
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2.5 Section E: Vendor Project Budget

Vendor Cost for FSR Development (if applicable)	\$ 174,296
Vendor Name	Public Consulting Group, Inc.

Project #	8660-080
Doc. Type	FSR

VENDOR PROJECT BUDGET

1.	Fiscal Year	15/16	16/17	17/18	18/19	TOTAL
2.	Primary Vendor Budget		\$ 983,928	\$ 186,000		\$ 1,169,928
3.	Independent Oversight Budget	\$103,180	\$ 112,560			\$ 215,740
4.	IV&V Budget		\$ 174,240			\$ 174,240
5.	Other Contract Services- Procurement Support	\$200,000				\$ 200,000
6.	Other Budget – Project Management		\$ 369,600			\$ 369,600
7.	Other Budget – Online Payment Vendor		\$ 250,000	\$ 300,000		\$ 550,000
8.	TOTAL VENDOR BUDGET	\$ 303,180	\$1,890,328	\$ 486,000	\$	\$ 2,679,508



Project #	8660-080
Doc. Type	FSR

2.6 Section F: Risk Assessment Information

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

General Comment(s)



Preliminary risks for this project have been identified, captured and discussed. The highest priority risks will be escalated as needed for resolution. Preliminary Risk Management Plan is in Section 7.0, including the current Risk Register, and will be updated once all parties are on board, which is targeted for July 2016, and on an ongoing basis.



3.0 Business Analysis

In accordance with the Statewide Information Management Manual – Section 20 dated June 2014, the approved Stage 1 Business Analysis (S1BA) and Gate 1 scorecard for the eFiling Administration Support (eFAST) project (Department of Technology Project Number 8660-080) is provided in Appendix A of this FSR.

There have been no material changes in the Business Analysis since the S1BA was submitted and approved.



4.0 Baseline Analysis

The purpose of this section is to provide a description of the manual and automated systems that support current business processes at the CPUC. This is to establish a baseline from which the new system requirements, costs of implementation and resulting benefits may be evaluated.

4.1 Current Method

The CPUC has five (5) business divisions that receive various filings from regulated entities (constituents). These divisions are the Administrative Law Judge, Water and Audits, Communications, Energy, and Safety and Enforcement. Each of the divisions receives different types of filings submitted by constituents, and the specific information, analysis, and processing of these filings differs based on the regulated industry and regulations. Even with these variations in specific details of processing, there are substantial similarities in filing processes. For example, filings are submitted to the CPUC by constituents. Each division performs some type of intake process to prepare the filing for CPUC Analyst handling. CPUC Analysts interact with constituents in the course of processing. Lastly, a disposition on the filing or filed information is made (typically this disposition is a decision of some kind, but could also be simply receiving the filing), and the documentation and data are passed from the intake process into internal systems for storage. In spite of these underlying similarities and because of the various electronic filing efforts, current filing method(s) are disparate and unique to the respective divisions. Non-integrated efforts to increase efficiency and improve customer service through technology have resulted in fragmented, stand-alone solutions that do not provide a consolidated visibility into the state of the business.

All of the CPUC's current method(s) of handling filing submission processes (except for formal eFiling to the Administrative Law Judges [ALJ]) are completely manual. Work processes and procedures are paper-based with a strong reliance on staff to manually validate, analyze, update, and process filing submissions. Filing submissions and payments are submitted hardcopy or on compact disk (CD) through the US Postal service; and are manually reviewed and processed. General Order (GO) 96B currently dictates the number of paper copies of a Filing that must be provided; the regulation not only supports the manual paper-based method but inadvertently perpetuates it. There are no automated, common processes for similar filings across departments, and there is no central method or location for customers to submit filings and their related documents. While some filing processes are similar at a high level, they vary distinctly at a detail level.

Data received from the various hardcopy filings is manually entered in databases and/or internal systems and tools and, in some cases, the data is stored only in hardcopy files. Although the data may be entered into a tool or system, much of the information from filings is not extracted to create meaningful reports or leveraged for other processes.

Customer (i.e., regulated entities submitting filings) satisfaction is measured anecdotally, and is often dependent on the type of filing and the length of time required



to process the information once received by the CPUC. There is very limited monitoring or tracking performed to ensure excellent customer service. Various forms of communication with constituents, such as correspondence, notices, emails, and others, are not easily accessible without manual research and retrieval effort.

The current methods do not possess the flexibility or capacity to meet current and projected workload demands. There are currently processing delays and backlogs. Anticipated workload demands, such as Senate Bills SB-611 (Modified Limousines: Inspection Program: Safety Requirements) and SB-109 (Charter party Carriers: Limousines: Emergency Exits) affecting the transportation carrier industry, are expected to increase the workload and result in additional backlog.

CPUC staff work diligently to provide constituents with quality service by making proper decisions within the limits allowed by regulation, providing assistance in navigating the various forms to be used to submit filings, communicating with constituents to request for additional information, and responding to requests for status of the filing, but are burdened by manual processes and systems that are time-consuming and inefficient. Among other operational inefficiencies, manual processing exposes the organization to various risks which include: human error, delays in processing submissions, overspending in labor hours, potential breaches in private and confidential data, and potentially compromised public safety due to enforcement staff redirected to process submissions.

The CPUC currently experiences a number of issues and business impacts related to the current method for filing submissions. These impacts include processing delays, data entry errors, a lack of transparency in the filing process, and limited capabilities to perform audits and implement new legislation into the manual process.

Some of the issues and business impacts associated with the current business methods are listed below.

Table 1: Current Business Method Issues and Impacts

Current Business Method	Issue and Impact Details
Non-Uniform Submission Processes	There are few common processes for similar business functions (i.e. applications, claims, advice letters, and registrations) across departments. There are inconsistencies in informal submission methods; some are by US Postal Service or by courier, and are in either paper form or on compact disc. Filing processing is manual, labor-intensive, and time-consuming. Some of these processes will require changes to General Order or Public Utilities mandates to take advantage of improvements made available by the proposed eFAST Solution.
Manual Document and Payment Processing	Documents and payments are processed manually (except for formal eFiling to the ALJ). This increases staff workload and can delay the processing of payments. A delay in payment processing can cause a regulated entity's account to temporarily suspend.



Current Business Method	Issue and Impact Details
Information Silos	Siloed databases and processes need to be integrated to access, process, track, monitor, and update regulated entity information, documents, payments, and other mandated regulatory items. Current tools and databases do not share data that could provide a total snapshot of a regulated entity’s standing at any period of time.
Fragmentary Methods of Constituent Interaction	Constituents’ interactions with the CPUC (e.g., documented phone calls, correspondence, etc.) are not consistently tracked or discoverable. Constituents account information can only be accessed through manual CPUC staff activity. Regulated entity inquiries (e.g., calls, emails, in-person visits) regarding applications, advice letters, account status, or payments increase staff workload in multiple divisions. Because a consolidated view of the constituents’ interaction history is not available, responses to constituents’ inquiries are often incomplete, further exacerbating the problem.
Disconnected Systems that Prevent Auto-population	Outside of the integrated Enterprise Oracle Applications, minimal sharing of information across departments causes duplicate, manual input into systems that do not integrate with each other.
Heavy Dependence on CPUC Staff for Basic Account Information	Many of the current systems lack the ability for a regulated entity to view their filing status or correspondence and payment history. Regulated entities do not have access to their own accounts to track and monitor their filings, resulting in phone calls and other correspondence to the CPUC. The quality of service delivery is impaired by the additional workload resulting from increased call volume, email communications, and delays in payment processing.
Submission Data Cannot Be Extracted to Create Meaningful Reports or Respond to Data Requests	Reporting is cumbersome or unavailable. Because of the nature of the manual processes, there is little or no dynamic reporting on departmental efficiency or regulated entity information. The information submitted on applications and other filing forms is unable to be updated and cannot be easily integrated into a database for convenient access or reporting. Meaningful reports for management use or to respond to requests for data from the public or interested state agencies cannot be generated easily, and in some cases not at all.
Supervisory Approvals are Routed Manually and Executed on Paper	Manual routing and approval processes are cumbersome and delay processing efficiency. Executive approvals of advice letters require hardcopies and physically walking to a manager or supervisor’s office that may be in a different physical building location.



Current Business Method	Issue and Impact Details
Incomplete Filings Cause Delays in Processing and Staff Workload	Incomplete filings are frequently submitted. The current method does not preclude submission of incomplete filings. CPUC staff must manually date stamp, review, and process filing packages as they are received. When a filing is missing required documentation, staff hours contact the submitter individually, and manually update regulated entity accounts.
Manual Verification of Submitted Information is Time Consuming and Prone to Error	No automated validation and verification of information is available to ensure that manually entered information is correct. CPUC staff manually verify and validate information, which is time consuming and prone to error and re-work.
Informal Submissions are Stored in Physical Filing Systems or Non-Integrated Digital Formats	Paper documents are stored in file cabinets in division file rooms, then discarded or moved to offsite storage based on availability of space. In some cases, contents from compact discs are uploaded to the business unit system (and thus accessible only to that business unit.) The compact discs are then stored in containers or in file cabinets. Filings are at risk of being misfiled, damaged, and lost. Neither paper copies nor compact discs are easily searchable or retrievable. There are inconsistencies with informal submission formats, storage methods and retention schedules. This further reduces management visibility into inventory, quality, and throughput, and exacerbates the amount of time required to determine prior history or activity related to a filing and/or regulated entity.
Enforcement Staff Redirected to Submission Processing	During peak periods of filing submissions, CPUC Enforcement staff are redirected to assist with processing the filings. Audits, verifications, and other enforcement actions cannot be performed in a timely manner; potentially jeopardizing public safety.

The eFAST project expects to increase the CPUC’s ability to improve customer service and efficiency through automation by providing a common platform that capitalizes on the basic, similar filing functions performed by each division. The eFAST platform will be the foundation upon which the CPUC will address the specific information gathering and processing variations of each filing type and division.

The CPUC has five (5) organizations that will influence the eFAST project. The business stakeholders (the divisions that own the current filing business processes) are the:

- Safety and Enforcement,
- Communications,



- Energy, and
- Water & Audits divisions.

The final influencing organization, the Information Technology (IT) partners, reside within the Administration Services Division, Information Technology Branch.

Within the Safety and Enforcement division, the Transportation Enforcement Branch is specifically engaged for the eFAST project.

As noted above, four divisions own the current filing business processes, and will continue to do so in the future. The proposed solution must meet the business needs and objectives for the current and future filing processes for all four divisions, as well as be available for other divisions to leverage for their electronic servicing needs.

The IT Branch is responsible for providing technology support to all CPUC divisions and staff. The IT Branch has 47 staff consisting of technicians, technical staff, and a project management office reporting to the Chief Information Officer (CIO.) The IT Branch performs the following functions:

- Technology Services (administration of website, servers, network),
- Service Desk (IT Service Desk),
- Project Management Office,
- Operations Support (operations, asset, GIS, AV/Communications), and
- Applications Programming (Oracle infrastructure support, application development).

The CPUC strives to align its project methodologies to be consistent with California Project Management Methodology (CA-PMM) and Project Management Institute (PMI) Project Management Methodologies as stated in the Project Management Body of Knowledge (PMBOK). The specific project management tools and artifacts vary based on the size and complexity of the project. The CPUC IT group typically uses a waterfall or iterative system development lifecycle methodology for application development. Section 6.0 of this FSR provides a more detailed description of the CPUC methodology.

4.2 Technical Environment

This section provides a description of the technical environment in which the proposed solution will operate.

System Architecture

While many technologies have their own strengths as development and deployment platforms, each different technology comes at a distinct cost. In an environment where resources are limited, standardization of platform and tools is the best method for the CPUC to realize maximum efficiency. No individual project can bring its own toolset



therefore all CPUC projects will utilize the existing architecture, platform, and toolset. Any additional tools or applications will be included at the discretion of the CPUC.

The CPUC operates two distinct application delivery platforms:

- Oracle Database / Oracle Development Tools – Primary enterprise development and deployment platform.
- Microsoft SQLServer / Microsoft .Net – CPUC deployed and maintained but vendor developed application components.

The CPUC application development, maintenance, and general expertise are in Oracle based software.

- The Oracle database is the primary database tool in use by applications delivered by the CPUC and contains source data for most of our systems.
- Internal applications have generally been developed using Oracle Forms and Oracle Reports and deployed using the Oracle Application Server. Oracle Application Express (APEX) is also available internally for development of applications and is the direction of choice for future application development.
- The CPUC has an installation of the Oracle Enterprise Business Intelligence Tool, including BI Publisher, which is not fully used due to lack of staff for deployment of a BI environment.
- Oracle Application Express (APEX) is the development tool used by the CPUC Applications Development Team externally to expose data to the public and deploy applications to validated stakeholders. The Oracle Internet Directory (OID) is used for external user access to external data on the DMZ. Although Oracle Unified Directory Services) for Identity Management will be the upgraded tool.
- Oracle Enterprise Manager Grid Control is used as the main monitoring and maintenance tool for the application stack.

Also maintained by the CPUC is an enterprise platform for Microsoft SQLServer / IIS based components that have been delivered, usually by external vendors, for CPUC use.

- IIS for .Net deliveries extends to the DMZ for external usage.
- A number of applications are a mix of .Net data entry forms used against the Oracle Database backend.
- This environment is integrated into use for specific cases.
- The CPUC has only a limited base of expertise in maintaining deliveries to this platform.
- No custom programming is done by the CPUC Applications Programming Group on this platform.



4.2.1 Existing Infrastructure

Current Architecture

Production

The current production architecture is a web-based implementation consisting of an application server and a database server. Applications generally consist of two parts: one part is accessed by internal CPUC staff and the other part is accessed by external stakeholders or public users like utility company employees and consumers. Based on the requirements of each application, data is transferred between the public environment and the internal environment periodically during the day. No sensitive data is stored externally. All data entered or gathered externally must be staged to external queuing tables and transferred internally in an asynchronous method. Any free form text entries that cannot be limited to strict field validations must be manually accepted by internal CPUC staff.

Applications will be accessed using the existing CPUC network. CPUC staff utilizes web browsers to access applications on the CPUC internal network (Intranet). Data is also passed between various internal applications and other existing applications running internally at the CPUC data center. This data is passed by making the relevant data tables available for data passing within the database or exposing data for consumption by a web service or file transfer.

In the short term, all of the application infrastructure will reside in the CPUC data center although there is an Infrastructure Modernization Plan in place for the applications delivery that will move the production deployments to a remote site data center. The following assumptions can be made about the infrastructure.

- CPUC will provide a firewall separation between Internet and trusted zone segments.
- CPUC will provide network Intrusion Detection Services (IDS) within the network segment that hosts the demilitarized zone (DMZ) web servers and the internal application and database servers.
- MPLS or higher connectivity exists between CPUC offices.
- CPUC will provide backup and recovery, monitoring tools and virus protection.
- CPUC will provide personal workstations (desktop computers) for use by CPUC staff at CPUC offices.
- Applications will operate under industry-standard network protocols (TCP/IP, FTP, HTTP, HTTPS)
- CPUC internal staff will deploy Applications to internal and DMZ Production environments.
- CPUC internal staff will be responsible for any server setup and configuration in consultation with vendor staff (where necessary).



-
- CPUC staff will be responsible for maintaining server, software, backup and recovery, and monitoring of servers, software, and Application performance.

Development, Test, and Training

The Application development, test, and training architecture are similar to the production architecture implemented with scaled down servers in terms of the number of processors and memory size. At this time all functions, development, testing, and training will be performed on the same server stacks. We will add a testing stack with the Modernization Effort, but it will not be available until the end of the 2014/2015 fiscal year (approximately July 1, 2015).

- The Development/Test/Training environment is remotely accessible to a vendor's development staff through a remote login connection for troubleshooting or development where applicable. Although direct server access to developers and vendors is not available.
- CPUC internal staff will deploy applications to internal and DMZ Test/Training environments when code is developed off-site and delivered. Vendors will provide code as an initial release and documented patch updates that include all code and instructions for applying patches.
- CPUC internal staff will be responsible for any server setup and configuration in consultation with vendor staff (where necessary).
- CPUC staff will be responsible for maintaining server, software, backup and recovery, and monitoring of servers, software, and application performance.



Current Supportable Solution Architecture

Exhibit 1: Current Production

Application Group's Production Server Architecture

Last Updated January 5, 2015

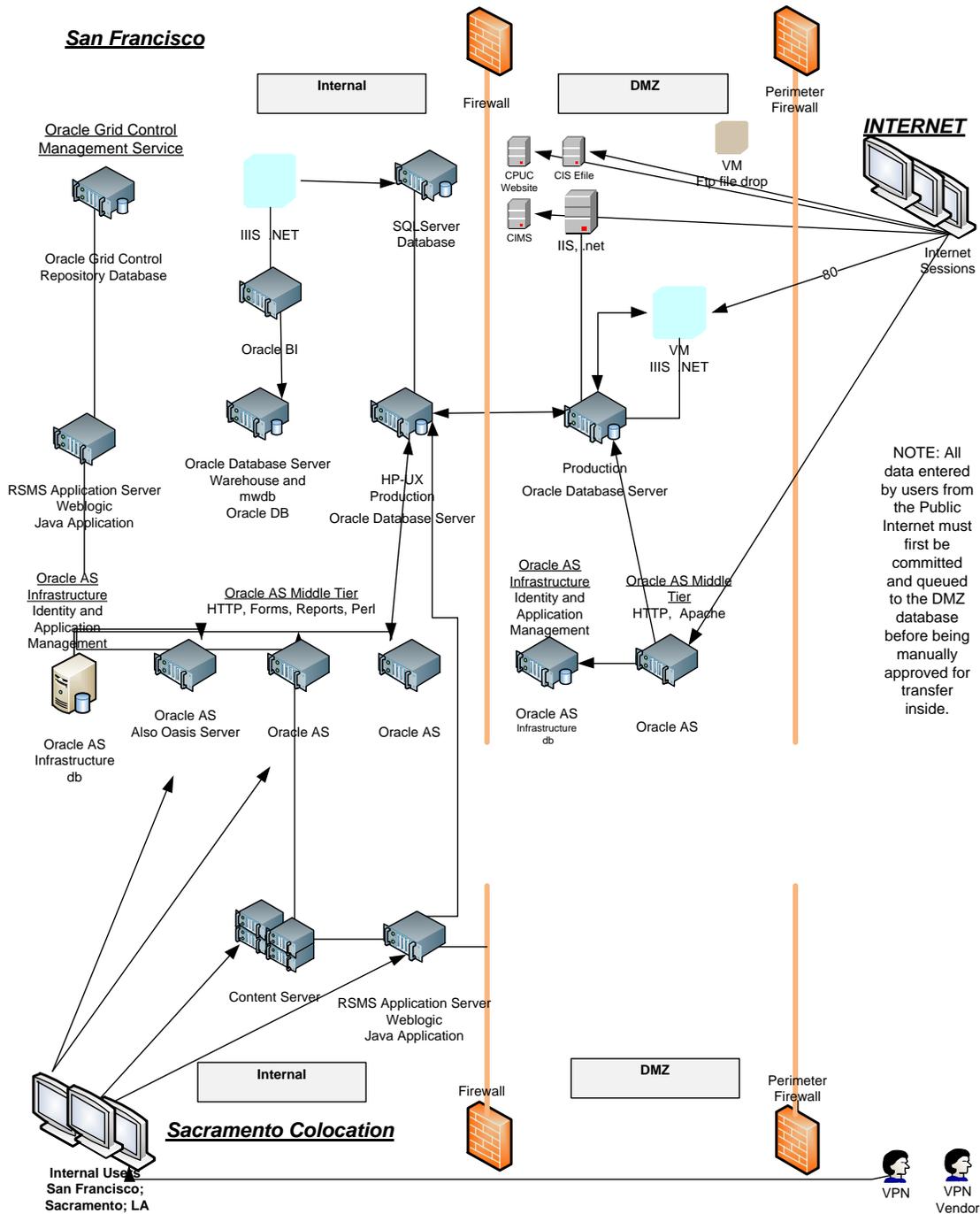
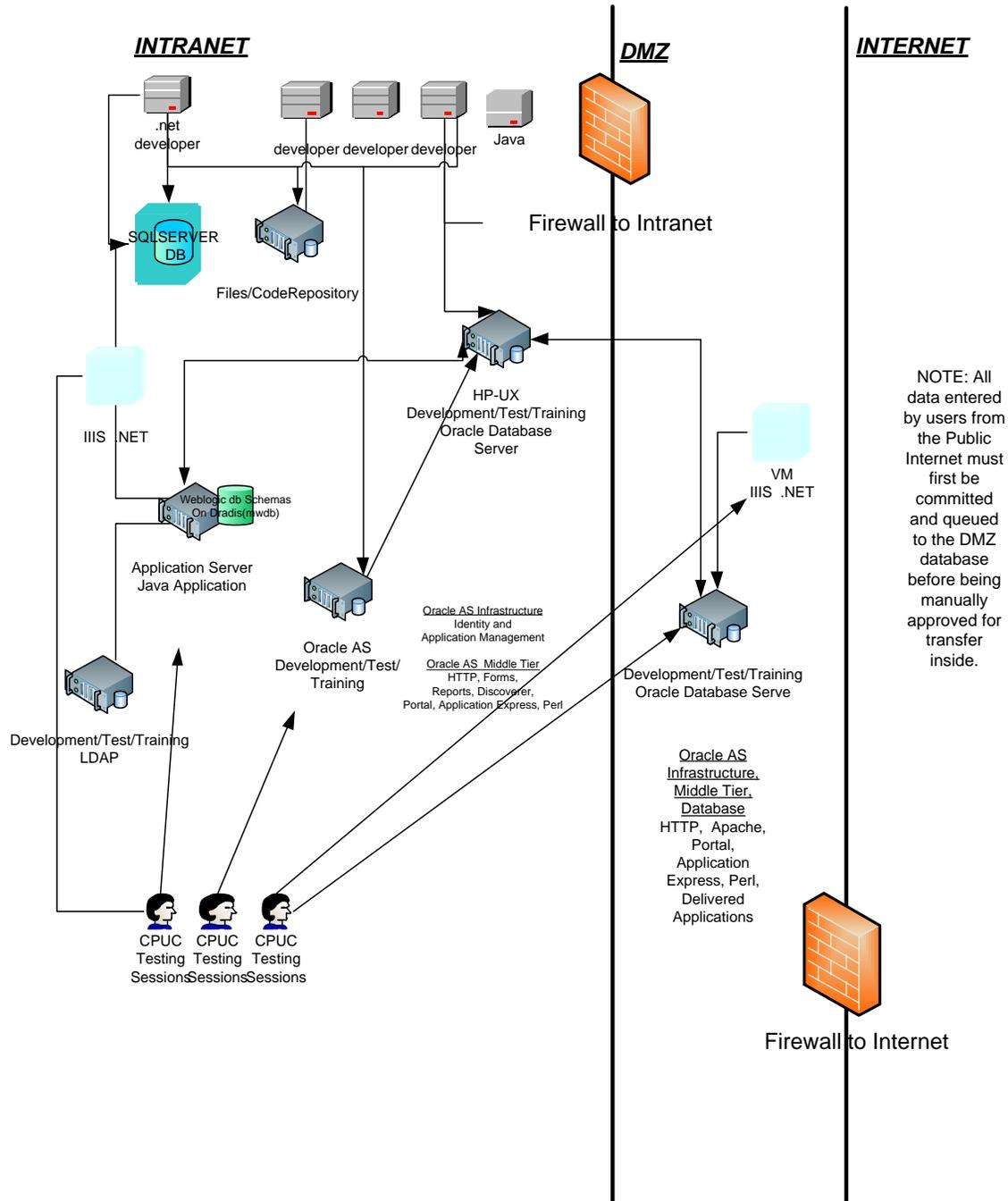




Exhibit 2: Current Development

Application Development and User Development/Test/Training Server Architecture

Last Updated January 5, 2015





4.2.2 Future Supportable Solution Architecture

The California Public Utilities Commission has embarked on an initiative called “Electronic Servicing of Information (ESI)” to improve electronic access of the CPUC data to the public. Improved electronic access would allow the CPUC’s constituencies to interact with its applications more directly, thereby getting quicker servicing and access of data. The technical benefit derived from this initiative will be the reduction of the hardware refresh cycle and hence a reduction of the cost of the server infrastructure by converting to an internal, virtualized cloud model.

The proposed architecture is designed to support the immediate and long-term plan of the CPUC. The architecture is also designed to scale for planned new workloads to the systems. Sufficient reusability and repeatability is considered while building the architecture. The architecture includes the use of standards for operating systems, java, and application servers. The architecture is designed to facilitate the adoption of virtualization and cloud, thereby reducing the cost of infrastructure.

The CPUC intends to virtualize the existing Oracle Servers by migrating existing physical server functions and applications to virtual machines on the CPUC hosted Oracle Virtual Machine (OVM) internal cloud. OVM was chosen for the Oracle software stack in order to meet licensing requirements and restrictions established by Oracle for their software deployments.

The Modernization Effort is an operational maintenance activity that is expected to be complete by the end of the 2014/2015 fiscal year.

- All servers, applications, and functions will be upgraded as part of this migration.
- All physical servers to deliver the Modernization Effort have been purchased and are in place.
- All licenses needed to deliver the Modernization Effort have already been acquired.
- Vendor assistance to complete the migration is already budgeted and planned.
- The Modernization Effort will not affect development efforts that are on-going as all current platforms are being supported and migrated.



Future Production Modernization Effort

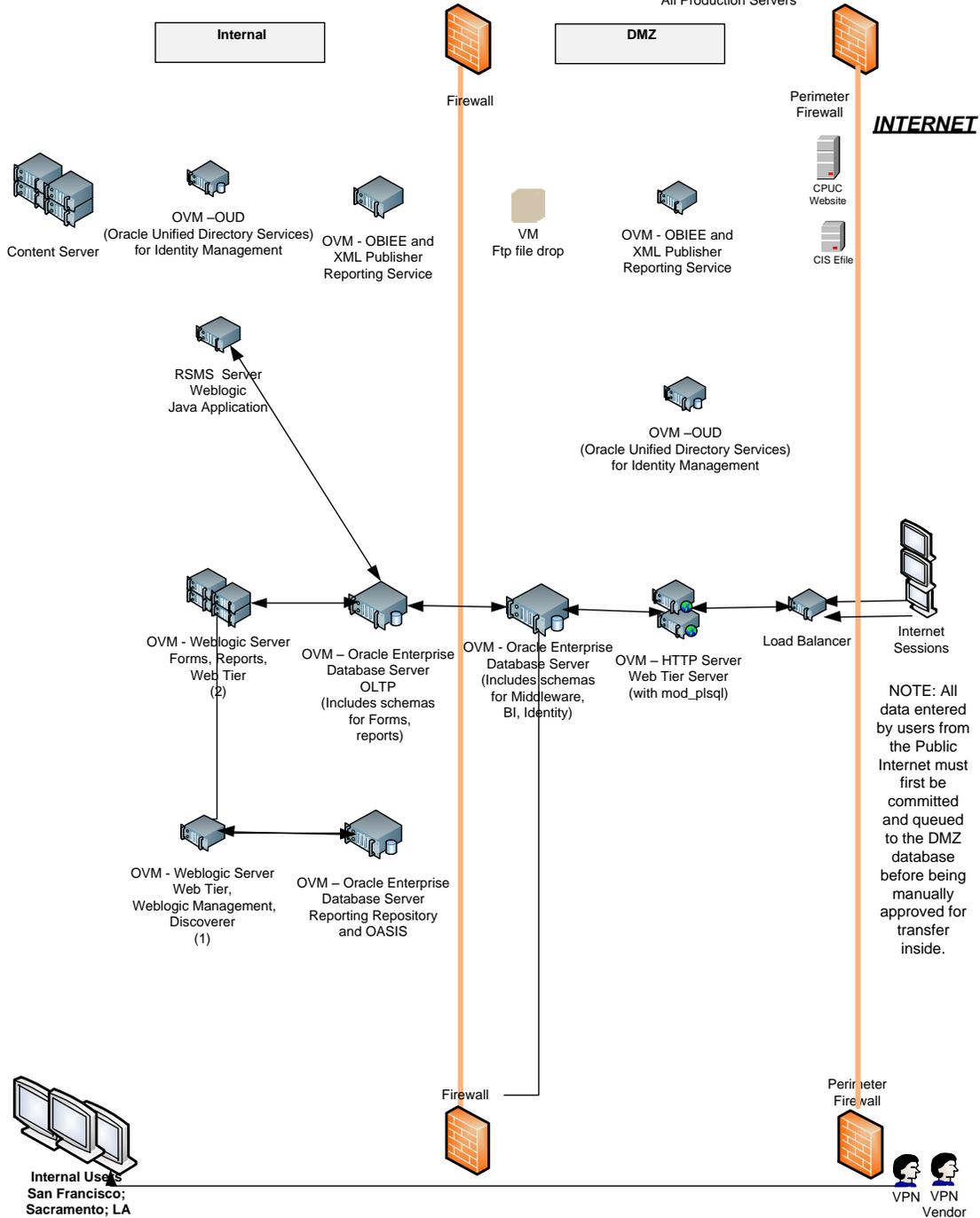
Exhibit 3: Future Production

Application Group's Production Server Architecture Migration

Last Updated January 5, 2015

Sacramento Co-Location Site

All Production Servers





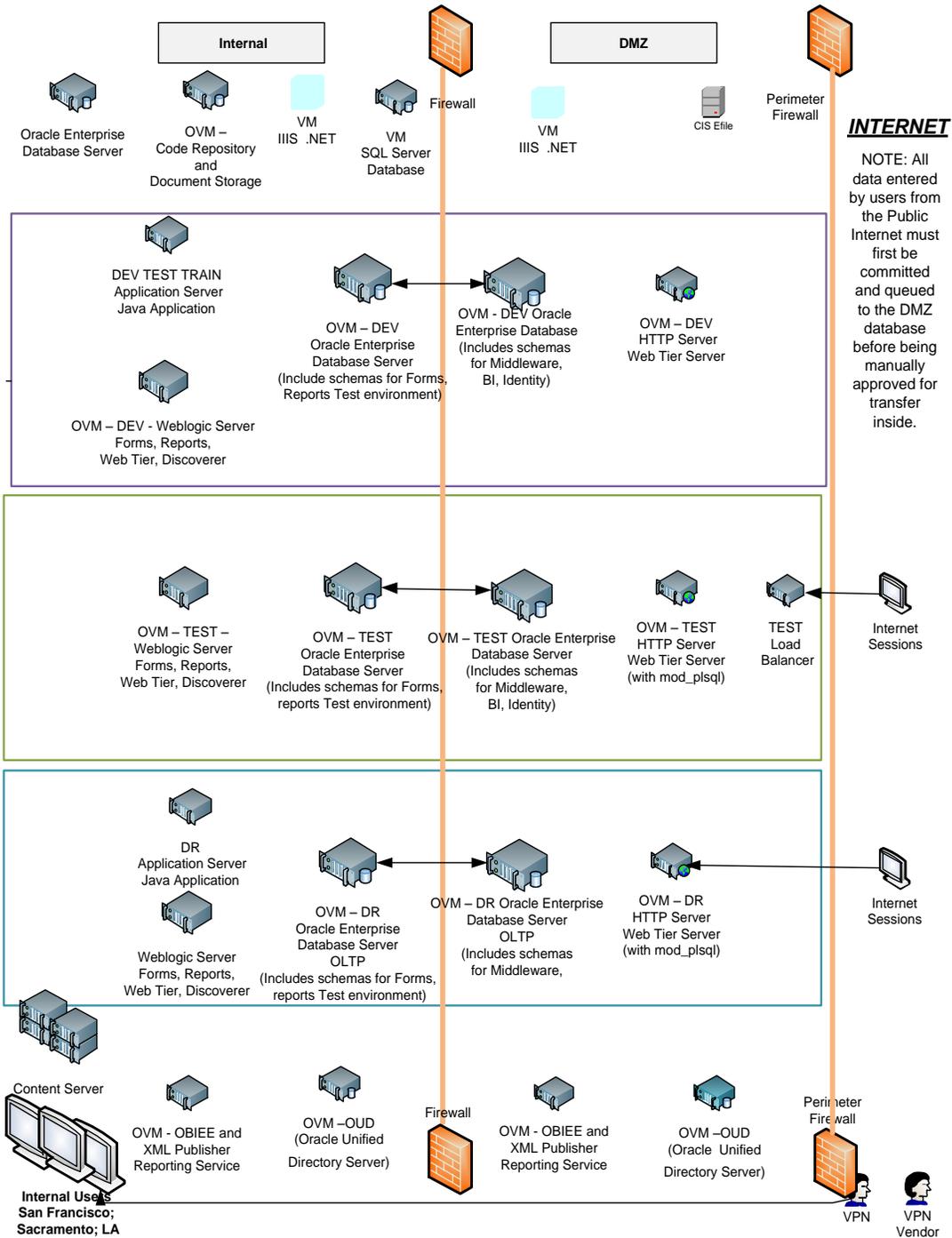
Future Development/Test/Training/DR Modernization Effort

Exhibit 4: Future Development/Test/Training/DR

Application Group's Dev, Test, DR Server Architecture Migration

Last Updated January 5, 2015

San Francisco



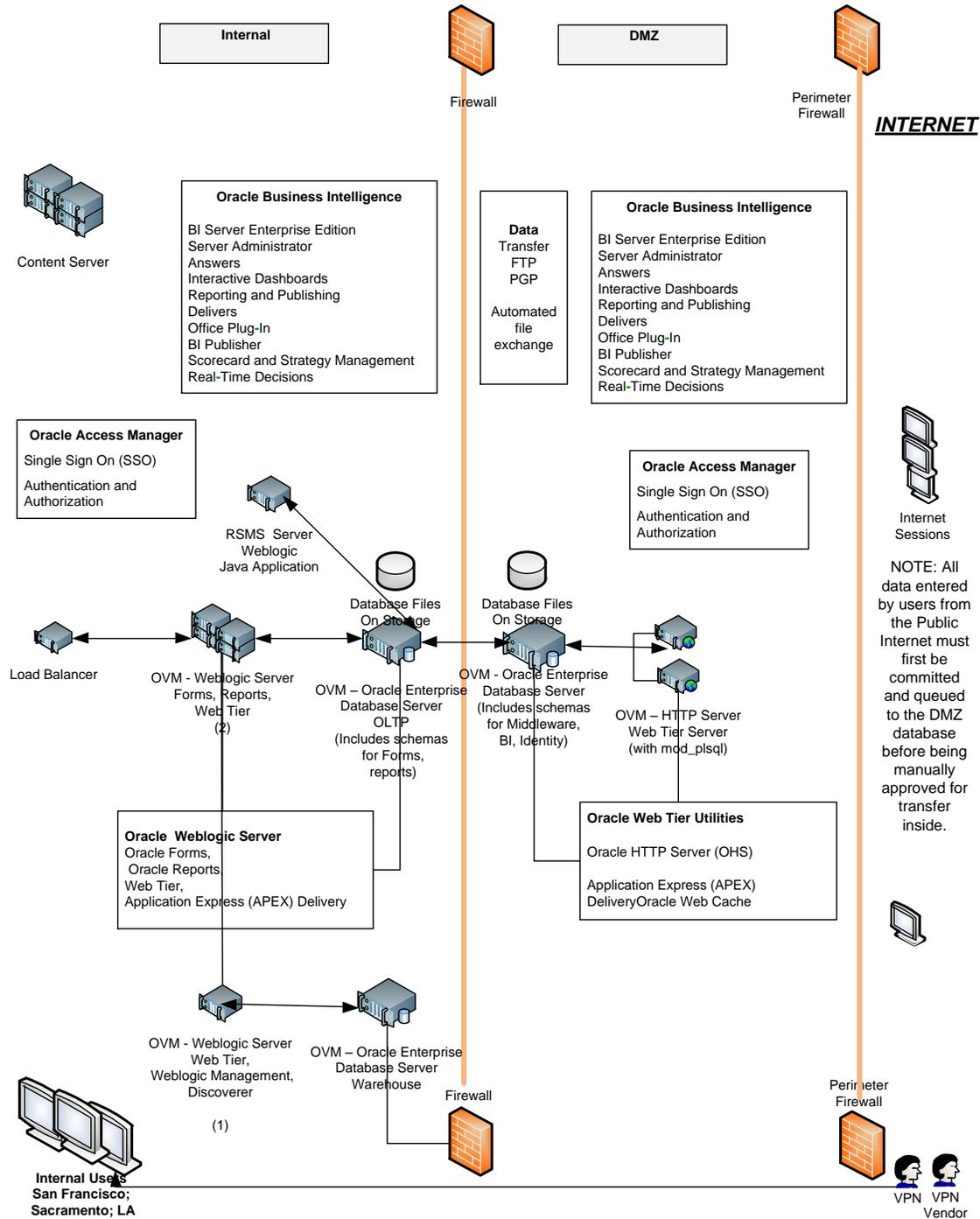


Future Technology Stack Outline for Modernization Effort

Exhibit 5: Future Technology Stack

Application Group's Technology Stack Available with Modernization

Last Updated January 5, 2015





Future CPUC Technology Stack and Platform for Application Delivery

Oracle Enterprise Database Server

- Linux

Oracle Weblogic Server

- Oracle Forms
- Oracle Reports
- Web Tier
- Application Express (APEX) Delivery

- Windows

Oracle Business Intelligence

- BI Server Enterprise Edition
- Server Administrator
- Answers
- Interactive Dashboards
- Reporting and Publishing
- Delivers
- Office Plug-In
- BI Publisher
- Scorecard and Strategy Management
- Real Time Decisions

Oracle Access Manager

- Single Sign On (SSO)
- Authentication and Authorization

Oracle HTTP Server

- Oracle Web Tier Utilities
- Oracle HTTP Server (OHS)
- Oracle Web Cache
- Application Express (APEX) Delivery
- Linux



Supported Tools for Application Programming

Interfaces and Reporting

- Oracle Forms
- Oracle Reports
- BI Publisher
- Application Express (APEX) Delivery

Oracle Business Intelligence

- Answers
- Interactive Dashboards
- Reporting and Publishing
- Delivers
- Office Plug-In
- BI Publisher
- Scorecard and Strategy Management
- Real Time Decisions

Document Management

- Open Text Content Server

General Modularization of Electronic Servicing of Information Strategy

The CPUC currently uses an architecture that manages electronic servicing of information in a similar, but reduced feature method to the one described in this document. This document describes the modules required to deliver a more robust and fault tolerant delivery of information to support a higher level of electronic servicing. This will promote a more self-service mode of interacting with the CPUC's constituency and the public, while decreasing processing time for the CPUC staff.

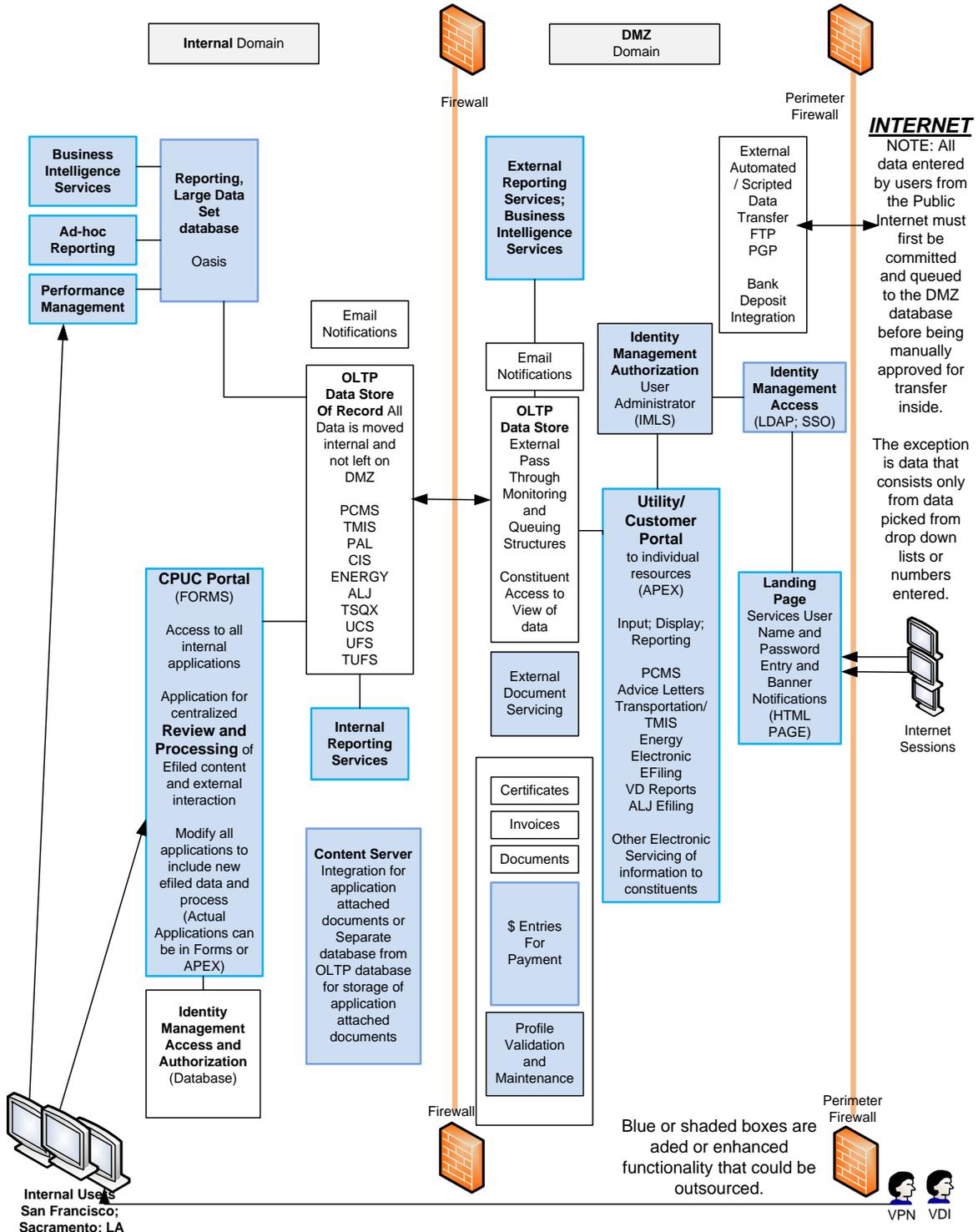
The following diagram outlines the modularization of our preferred Electronic Servicing of Information Strategy that builds on the currently functioning delivery. The items in blue are the ones that need to be enhanced or added to support this effort.



Exhibit 6: Electronic Servicing of Information Strategy

ELECTRONIC SERVICING OF INFORMATION APPLICATION

Last Updated January 5, 2015





eFAST Platform

The CPUC intends to improve its existing infrastructure through deployment of the eFAST enterprise-wide electronic servicing platform to facilitate intake, validation, routing and status reporting for filing activities. The platform will provide the common infrastructure needed to fully realize business objectives through the application of filing-type specific workflows, business rules and reporting.

The eFAST solution must be secure, reliable, and afford the CPUC the ability to:

- Accept information (filings, documents, payments, etc.) from constituents online
- Provide information (notices, requests for additional information, status of filing, etc.) to constituents online or via other electronic means (e.g., email)
- Process electronic, online submissions through an automated workflow
- Provide for display of business reporting
- Provide the ability to view a history of interactions and communications between constituents and the CPUC
- Provide the ability for a constituent to self-service their account information and view their interactions
- Support customer inquiries on personal account statuses and basic questions on application filings and processes and other frequently asked questions
- Integrate with existing and future CPUC infrastructure, tools, applications and systems (e.g., identity management system, document management system, et al)
- Integrate with external data sources (e.g., Secretary of State, Department of Motor Vehicles, et al) to the extent possible
- Provide system administration and general configuration capabilities allowing application administrators to provide as much support as possible to respond to future business changes and demands
- Comply with relevant standards

High-level business requirements are provided in the table below. These requirements are further elaborated in Section 9.0, Business Functional Requirements of this FSR.

Table 2: High-level Requirements

#	Requirement Description
1.	The eFAST Solution shall provide a workflow capability, including functionality to route filings to specific roles, work groups, and/or system/applications and capability to configure the flow of business process steps.



#	Requirement Description
2.	The eFAST Solution shall provide visibility to management on the status, inventory, aging of work in progress. The system will also provide visibility to the external user to determine the status of their submission.
3.	The eFAST Solution shall provide functionality to allow for the display of business reporting.
4.	The eFAST Solution shall provide the ability to view the history of interactions and communications with any given constituent or customer. (For this purpose customers are defined as entities required by regulation to do business with the CPUC, citizen public, all other parties governed by the CPUC).
5.	The eFAST Solution shall provide customer account management functionality that allows customer to view and manage their own accounts in a self-service mode, as well as allows authorized CPUC staff to view and manage customer accounts.
6.	The eFAST Solution shall utilize the ability to integrate with an existing document management system within the structure outlined by the CPUC. For this purpose, document management is defined as a system used to track and store documents. A document management system is usually also capable of keeping track of the different versions modified by different users (history tracking). The CPUC currently uses OpenText Content Server Version 10. There are also current web publishing standards in CPUC that should be leveraged.
7.	The eFAST Solution shall provide identity management functionality, and will integrate with existing CPUC identity management tools and systems. Identity management (IdM) is the task of controlling information about users on computers. Such information includes information that authenticates the identity of a user, and information that describes information and actions they are authorized to access and/or perform. It also includes the management of descriptive information about the user and how and by whom that information can be accessed and modified. Managed entities typically include users, hardware and network resources and even applications.
8.	The eFAST Solution shall provide the ability to integrate with external data sources (interfaces), "web" based applications, and other CPUC systems and databases as available in the DMZ without opening any additional ports.



#	Requirement Description
9.	The eFAST Solution shall provide the capability to share information from the CPUC to the general public and to known users (e.g., registered users with User IDs, regulated entities, etc.), and from the general public and known users to the CPUC.
10.	The eFAST Solution shall provide system administration and other general configuration capabilities to enable non-programmer staff (e.g., system administrators, configuration analysts) to maintain the eFAST Solution and provide as much support as possible.
11.	The eFAST Solution shall comply with relevant standards.
12.	The eFAST Solution shall offer online screens (e.g., web pages, forms) to provide data entry and validation functionality, and capture of entered data for data that is currently submitted to the CPUC via paper forms.
13.	The eFAST Solution shall be capable of accepting online payments (e.g., credit card, debit card, e-check, PayPal, etc.) and posting the payments to the correct constituent account, as well as displaying a history of online and manual payments and payment balance(s) for the constituent.
14.	Existing systems will not be decommissioned through the eFAST Solution project. However, since the data cannot remain in the eFAST system, some internal system(s) will be required for data storage, updates and processing after the filing process has completed, and for purposes of reporting. The decision to retain, modify, or decommission will be determined through the subordinate application projects. The subordinate projects currently proposed are Transportation Carrier Portal (Department of Technology Project Number 8660-080), Informal Submissions (Department of Technology Project Number 8660-071), and Program Claims Management System (Department of Technology Project Number 8660-066.)

Further discussion of the proposed solution is presented in **Section 5.0, Proposed Solution** of this FSR.



5.0 Proposed Solution

This section describes the proposed solution and discusses the alternatives considered during the solution analysis. Also identified are the resource requirements, technical impacts and interfaces, approaches to development and integration, and a recommended procurement approach for the proposed solution. The alternatives that were considered in selecting the proposed solution are described at the end of the section.

As noted in the Stage 1 Business Analysis in Appendix A, the CPUC proposes to implement a standard, enterprise-wide platform for electronic filing (e-filing) of documents and data. The California Department of Technology (Department of Technology) instructed the CPUC to develop this standard platform before designing and building any new e-filing applications.

The solution that will provide the set of capabilities needed to support future e-filing applications is identified as the E-Filing Administrative Support (eFAST) platform. eFAST will allow entities to interact with the CPUC electronically for Informal Submissions (Advice Letters and other informal submissions), Transportation Carrier filings, and Program Claims submissions. eFAST will provide for future e-filing applications that will meet the needs of the Administrative Law Judge, Water and Audits, Communications, Energy, and Safety and Enforcement business programs.

The recommendation of this feasibility study is to procure and configure a Best of Breed Toolset to develop the platform upon which future business program specific applications may be constructed. This recommendation best meets the needs of the Administrative Law Judge, Water and Audits, Communications, Energy, and Safety and Enforcement business programs and the strategies of the Commission as a whole.

This recommendation is the result of an alternatives analysis as discussed in Section 5.3: *Other Alternatives Considered*. The alternatives were analyzed based on criteria that included: the ability to support the technical and business strategy and functionality needs, solution/product viability over time, timeliness, cost effectiveness, and impact to the IT organization.

The new solution will be implemented using a combination of in-house and contracted resources, and vendor services (see 5.1.10 *Resource Requirements* and 6.1 *Project Organization*.) The CPUC will provide project management, software development, business analysis resources, program subject matter experts (SMEs), and hardware and software installation at the CPUC Data Center. The CPUC will also procure:

- Software development, business analysis, and project management support resources to assist with the implementation; and
- Primary solution vendor services to perform the initial set-up, configuration, and integration of the Best of Breed Toolset.



Because the CPUC does not have existing resources (including some Toolset components) available for this implementation, multiple procurement vehicles will be released in phases to assure the most timely project start possible.

The CPUC released a Request for Information (RFI) to seek information regarding potential solutions in the marketplace and conduct the alternatives analysis. Based on the responses to the RFI, respondent presentations, and knowledge of industry best practices, three viable system solutions were identified and considered:

Custom Build solutions – These are software solutions designed and developed from the ground up based on user-defined requirements.

Commercial off-the-shelf (COTS)/Modifiable off-the-shelf (MOTS) solutions – These are solutions where one or more components of the solution are existing software products offered by product vendors. These solutions are configured to meet customer requirements and are typically implemented with limited modification of the existing application software. Similarly to COTS solutions, MOTS solutions are configured to meet customer requirements but also can be modified as needed to meet specific requirements that cannot be met through development of the product.

Best of Breed Toolset solutions – These are solutions consisting of multiple products, or tools, that can be integrated with each other and with a client's existing system, and configured to meet customer requirements. These solutions are typically implemented without modification to the existing product or tool software; rather than customization or modification of the software, a tool or custom utility program is included in the toolset to meet the functional capability needed.

A comparative analysis of the potential solutions was conducted to select the preferred alternative for the proposed solution. The proposed solution is described in the following section and the alternative solutions are discussed in Section 5.3 *Other Alternatives Considered*.

5.1 Solution Description

The CPUC has sponsored an initiative to deploy a web based platform solution, eFAST, which will serve as the common, enterprise-wide foundation upon which business program or process specific applications will be built and deployed. The desired functionality for the eFAST platform solution was determined during extensive requirements elicitation and market research, and the outcome of a Request for Information (RFI) solicitation.

The eFAST platform project is unique in that its purpose is to create a foundational set of capabilities rather than a business program application itself. For this reason, we describe the eFAST solution in terms of these capabilities. Business functions that one



might typically expect to see in a Feasibility Study Report (FSR) Solution Description and requirements will consequently not be applicable to the eFAST FSR.

Deployment of eFAST will create an opportunity for CPUC to automate a eFiling-related business processes currently performed manually by CPUC staff, and present these processes as services via the web. Automation and service orientation of CPUC processes will promote standardization and enable customers (e.g., regulated entities, other interested parties, and the public) to perform selected functions on a self-service basis.

The eFAST Solution will provide the capability to collect, manage, consolidate, communicate, and process transactions that require input or action from an external source. eFAST will be deployed as a set of services that can be utilized by either built-in functions using smart forms (i.e., data entry web pages to capture and validate required data) or developed within eFAST, or through external applications that have been integrated into eFAST for homogeneous presentation to the external user.

Thus, the eFAST platform will serve as a hub for customer interaction with the CPUC, such as submitting filings (documents and data), maintaining customer accounts, making payments to all programs (e.g. through credit cards, bank transfers), and submitting inquiries. The selected solution will meet the needs of the diverse CPUC customer base, improve statutory compliance and automate the way the State does business. CPUC believes the automation proposed will improve public safety due to increased, real time processing of carrier applications and other informal submissions.

Foundational Capabilities

The eFAST Solution will provide a number of foundational capabilities that comprise the services to be offered to end users. These services will be available to multiple CPUC business program applications that have e-filing needs. The key functional capability areas to be established by the eFAST platform solution are:

- Business Process Management
- Business Reporting
- Customer Service Management
- Document Management
- Payment of Fees and Fines
- Portal Transactions
- Identity Management
- Information Sharing
- Solution Administration/Capability



Additionally, the eFAST platform solution will establish the following non-functional and technical area underpinnings:

- Integration
- Standards

Each of these areas is further described in Section 9 *Business Functional Requirements*.

As part of the eFAST platform project, an existing business application will be used as a proof of concept. It is anticipated that this business application will be the processing of applications for funding for the current California Advanced Services Fund (CASF). CASF is an application that generally utilizes all of the functionality needed by the FSR projects and has a constituency already established to use all of the delivered components. The proof of concept will demonstrate that the major functional requirements (those listed in Section 9) can be configured for the proposed Transportation Carrier Portal (TCP), Informal Submissions Portal (ISP), and Program Claims Management System (PCMS) subordinate projects to create business program specific applications. The pilot is primarily to just validate technical feasibility and environment preparation. Deployment costs and organizational change management (e.g. ADKAR Methodology) costs for the pilot will be incorporated into the primary vendor's cost. The larger, more expansive organizational change costs will be incorporated into the subordinate projects.

Technology

To achieve the desired platform of functional capabilities which will support the CPUC's business needs, the CPUC proposes to implement and configure a Best of Breed Toolset to create the eFAST platform. The proposed solution will utilize commercially available tools from Oracle that are compatible with and will integrate with both the current and future CPUC infrastructure (see Section 4.2 *Technical Environment*). The toolset will be implemented by a combination of state personnel, contracted personnel, and primary solution vendor resources. Organizational change management and training activities will be employed to reduce the impact of business process change on the organization and external parties affected by the new system. The web access portal will be hosted at the Department of Technology State data center and the production system will be hosted at the CPUC production data center. The CPUC intends to migrate production services to the Department of Technology data center by July 2016.

eFAST will be integrated with existing CPUC tools and systems where possible, and where it represents the best solution for CPUC. For instance, the eFAST Solution will utilize the existing document management solution (Content Server) to manage electronic attachments (documents and other materials submitted by an external entity)



or that need review or other input from an external entity. Additionally, the eFAST Solution will be integrated into the CPUC's Identity Management Layer System (IMLS.) This integration will allow the Solution to authenticate a user and constrain the functionality to which the user has access. The eFAST Solution will be accessed by external entities from the CPUC main website. Although an "unknown" user can access the eFAST landing page, which could contain public information, access to specific functions and information will be controlled by user authentication functionality.

Conceptual Architecture

The proposed eFAST software architecture will utilize four layers:

1. presentation layer (user interface)
2. application layer (business logic)
3. integration layer (services or other integrations)
4. data layer (permanent data storage.)

The presentation layer consists of the screens and logic necessary to interact with the user. The application layer contains the business rules, workflows, business process management, reporting, and other configurations necessary to create, implement, and maintain the application. The integration layer consists of the web services and APIs needed to integrate with the data layer and external systems. The data layer is the set of systems and databases that will house eFAST data and documents as the system of record on a permanent basis.

The diagram in Figure 1: *eFAST Conceptual Solution Architecture* on the following page illustrates the conceptual architecture of the proposed solution.



eFiling Administration Support (eFAST)

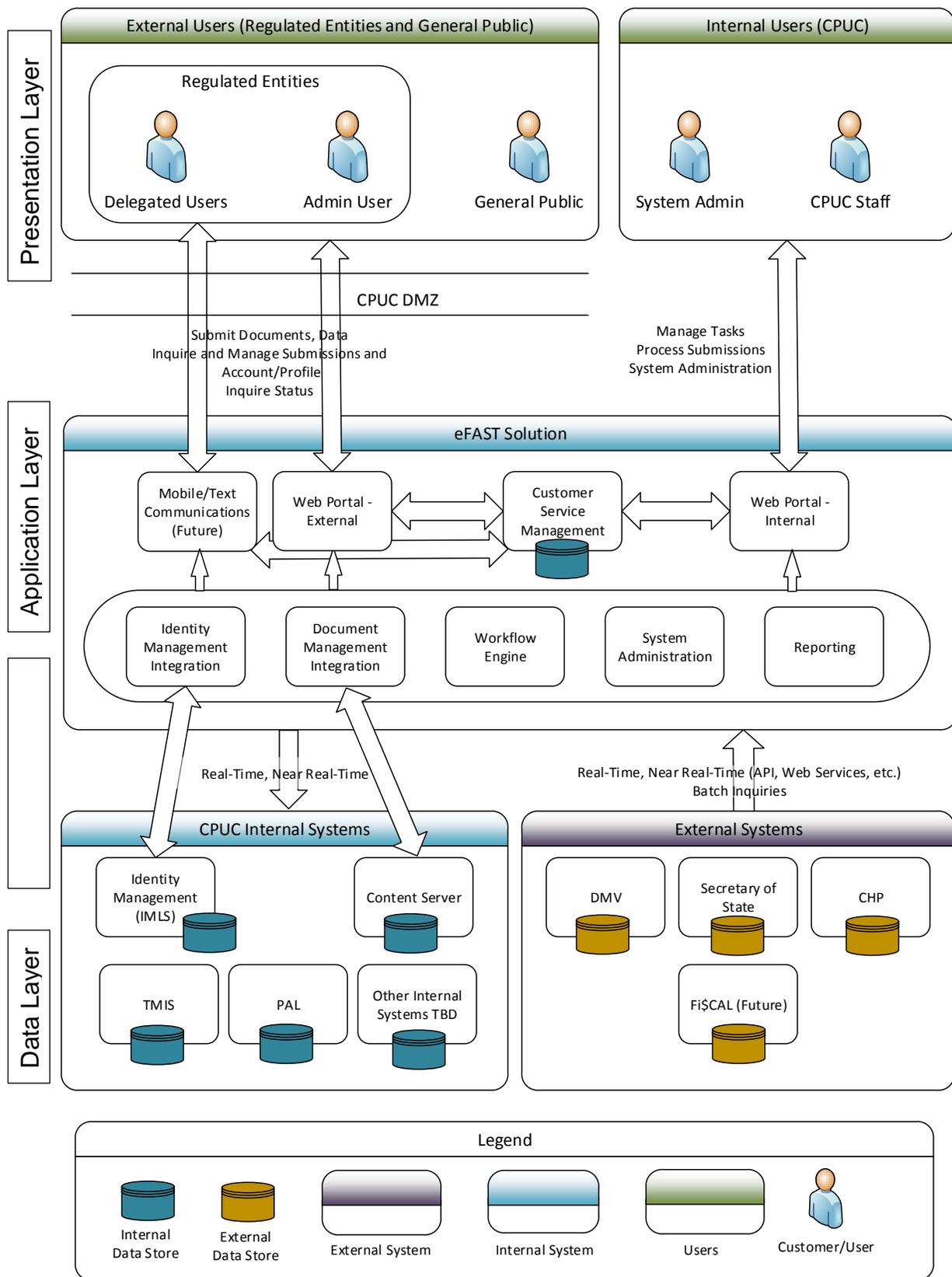


Figure 1: eFAST Conceptual Solution Architecture



This conceptual model does not describe the current or projected networking infrastructure, however, it should be noted that the CPUC has special processing guidelines for the handling of information (data, documents) from an external entity. For instance, during the “intake” process for a filing, any attachments and the data associated with that attachment may have to be “staged” in the DMZ using the .7 sub net.

The estimated costs for implementation, licensing, maintenance, operations, and training estimated to support the anticipated scope of work are listed in Section 8 *Economic Analysis Worksheets (EAWs)*. A detailed list of cost and timeline assumptions is included in Section 8. The following sections have been completed in accordance with the SIMM FSR Guidelines.

5.1.1 Hardware

The eFAST solution will have the production web access portal hosted at the Department of Technology State data center - development and test Web portal environments will be hosted at the CPUC. At all CPUC data centers, CPUC is responsible for the procurement, installation, provisioning, and maintenance of server hardware. The maintenance of the server hardware; operating system software upgrades and maintenance; operating system security administration; and backup and recovery will be performed by CPUC IT staff.

The hardware necessary to support the eFAST platform is listed in Table 3 below.

Table 3: eFAST Hardware

Item	Quantity	Location
Load Balancers	2	OTech
1U (OVM) Servers	4	OTech
Rack Space	As needed for above	OTech
1U (OVM) Servers	4	CPUC
SAN Storage 5 TB	1	OTech

5.1.2 Software

The eFAST solution requires the software associated with the hardware listed in Section 5.1.1 *Hardware*, in addition to the Best of Breed Toolset software.



The software necessary to support the eFAST platform is listed in Table 4 below.

Table 4: eFAST Software

Item	Location	Units
Oracle Web Tier - Processor Perpetual	OTech	4
OVM Support 500 ea	OTech	4
Linux Support (webtier)	OTech	2
Oracle BPM Suite Processor Perpetual	CPUC	4
SOA Suite for Oracle Middleware Processor Perpetual	CPUC	4
Oracle WebCenter Portal Processor Perpetual	CPUC	4
Oracle BPM Suite Per User Perpetual Dev/Test/DR	CPUC	40
SOA Suite for Oracle Middleware Per User Perpetual Dev/Test/DR	CPUC	40
Oracle WebCenter Portal Per User Perpetual Dev/Test/DR	CPUC	40
Oracle Web Tier - Processor Perpetual	OTech	40

5.1.3 Technical Platform

eFAST will utilize the technical platform architecture described in Section 4.2.2, Future Supportable Solution Architecture.

5.1.4 Development Approach

MOTS % COTS % Custom Development 30% Others 70% None

The development approach to eFAST is primarily based on the installation, set up, configuration, and proof of concept of the Oracle Best of Breed Toolset. Under this approach, the CPUC anticipates approximately 70% of the development to be done under configuration. Some custom development (approximately 30%) is expected to integrate the toolset with the CPUC’s existing document management system, Content Server; the identity management system, Identity Management Layer System (IMLS), and the California Advanced Services Fund (ASF) application.

As described in Section 6.2.1 *Project Phasing*, eFAST will be implemented in four phases: Phase 1) Installation and Set Up of Hardware and Software, Phase 2)



Configuration, Phase 3) Integration, and Phase 4) Proof of Concept: Applications for ASF

5.1.5 Integration Issues

As noted above, under the eFAST platform project, integration with CPUC's existing Content Server, IMLS, and ASF systems will be required. The primary solution vendor will be responsible for the integration effort and supported by the CPUC IT staff.

5.1.6 Procurement Approach

Proposed Vendor Procurement Vehicles:

IFB RFI CMAS MSA IFB RFO RFP Others None

There will be five contracts required for the implementation of eFAST as identified below.

1. CMAS for Procurement Support
2. CMAS for Project Manager
3. CMAS for IV&V services
4. ITMSA for primary solution vendor to set up, configure, and deliver proof of concept
5. ITMSA for primary solution post first year support
6. MSA for Online Payment Services Vendor

Proposed Vendor Contract Type:

Fixed Price Time and Materials Percentage of Benefit Other

The CMAS and MSA procurements for the primary solution vendor contract types will be fixed price. The MSA for the online payment services vendor will be fixed priced per transaction, as is typical for these types of contracts.

Market Research

In addition to conducting requirements elicitation workshops with business program staff to identify commonly needed capabilities for e-filing, the CPUC conducted independent research and used past experience to formulate high-level eFAST requirements.

The CPUC also released an RFI as part of the alternatives analysis performed to determine the preferred solution. The RFI provided the high level requirements formulated for the eFAST platform and asked respondents to describe a recommended solution, and provide an estimated dollar value and timeline for the project. Each of the respondents was invited to present their recommended solution to a team of CPUC staff to allow for better understanding of the potential available solutions, costs, and timelines.



Using information gleaned from the RFI responses and knowledge of California procurement guidelines, CPUC selected a procurement approach to address the following factors:

- Estimated dollar value – based on the responses to the RFI, primary solution vendor service costs will be less than \$1.5 million
- Complexity – the project will utilize tools for which the CPUC has limited, or no experience
- Resources – the project will need contracted services to support the CPUC with development, business analysis and testing, organizational change management, project management, and independent verification and validation (IV&V); and primary solution vendor services to set up, configure and integrate the tools, and to provide training for the toolset
- Urgency – the business programs inventory continues to rise, without additional staff to maintain current service levels using the existing manual processes (see 4.1 *Current Method*)

Accordingly, the procurement approach seeks to use multiple procurement vehicles to support the project.

Professional Services Justification

Professional services with highly specialized skills, specific knowledge, and experience in the Oracle Best of Breed Toolset are required on a limited basis for the development and deployment of the proposed solution. The CPUC does not have the resources or access to state employees that possess the needed credentials either internally or through another channel. CPUC staff has much experience with the hardware, the operating systems, the programming languages (PS-SQL, HTML, Javascript), the general Oracle based programming frameworks and the database systems (Oracle) that eFAST will be deployed on. CPUC staff does not have experience using these platforms to develop a configurable eFiling and workflow solution as yet, but by the time that eFAST is in place, most of the staff will have been to training in the new technologies that will be extending the environment. Internal discussion will already be in place regarding migrating other existing process to the new platform. Development, test, production, and DR platforms are already planned for or exist and will be tested in advance of the eFAST project. Most procedures will be in place and documented and will follow existing standards for the existing platforms. Also, a full upgrade of all systems and process currently being undertaken to support the eFAST program. If the contractor requires procedures for load testing or other efforts that we don't currently have, then we will work with the contractor to handle these issues. The Oracle platform modernization effort is extensive and replaces all of our software, hardware, and streamlines many of our processes.



The most timely, cost-effective, solution for a one-time acquisition of these resources is best undertaken through contracts with private sector companies. For these reasons, the project meets the requirements of Government Code section 19130(b) (3). The CPUC will file the required documents to DGS in a timely fashion for all professional services.

Contract Terms

The CPUC estimates that the contracted and primary solution vendor resources will be required for a term of twelve (12) months to set up, configure, integrate, provide proof of concept, and deploy the eFAST platform. The CPUC will provide ongoing support and maintenance of the system. The solution vendor must provide an initial one year of support as part of their maintenance contract after a stated period of warranty. The vendor must also provide a method of costing for optional support after the initial one year.

Contract Types

The types of IT goods/services, procurement vehicle/quantity, and contract dollar values for the eFAST platform are indicated in Table 5 on the following page



Table 5: eFAST Contract Table

CONTRACT TABLE										
Contract Number	Type of Contract	Awarded? (Yes/No)	Award Date	Start Date	End Date	Value	Interagency Acquisition? (Yes/No)	Performance Based? (Yes/No)	Competitively Awarded? (Yes/No)	Alternative Financing?
N/A	Procurement Support	No	Nov 2015	Nov 2015	June 2016	\$200,000	No	No	No	None
N/A	Project Management	No	June 2016	July 2016	June 2017	\$369,600	No	No	No	None
N/A	IV&V	No	June 2016	July 2016	June 2017	\$ 174,240	No	No	No	None
N/A	Primary Solution Vendor	No	June 2016	July 2016	June 2017	\$983,928	No	No	No	None
N/A	Primary Solution Support	No	June 2016	July 2017	June 2018	\$186,000	No	No	No	None
N/A	Online Payment Services Vendor	No	June 2016	Jan 2017	TBD – services needed on an ongoing basis	\$250,000 for implementation; \$25,000 per month continuing	No	No	No	None

5.1.7 Technical Interfaces

As noted in Section 5.1.5 *Integration Issues*, under the eFAST platform project, integration with CPUC’s existing Content Server, IMLS, and ASF systems will be required. All of these systems are internal to the CPUC. The CPUC does not anticipate any significant issues in establishing the technical interfaces. Technical interfaces will be accomplished using the most appropriate of either an application programming interface (API) or a service oriented architecture (SOA) web service.

5.1.8 Accessibility

eFAST will be developed in accordance with the State Administrative Manual Section 4833. In addition, eFAST will be in compliance with all applicable laws, regulations, and policies requiring the accessibility of digital content and IT applications to state



employees and the public. eFAST will meet accessibility requirements pursuant to Section 508 of the Rehabilitation Act and California Government Code Section 11135.

During the definition of project requirements, accessibility specific requirements will also be defined. Vendor procurement documents will also require that any part of the solution provided by a vendor will meet the requirements set forth by Section 508 and California Government Code Section 11135. Lastly, during the testing period, appropriate test scripts will be developed and executed to ensure compliance with Section 508 and California Government Code Section 11135 requirements.

5.1.9 Testing Plan

The overall objective of the testing process is to validate that the production system, both functionally and technically, meets and/or exceeds the requirements and expectations of the CPUC. The eFAST platform project team will be required to propose, plan, execute, and complete both functional and technical testing that meets CPUC standards.

The scope of testing broadly covers the functional and technical aspects of newly configured eFAST platform and proof of concept, applications for funding, and will be carried out during the entire course of solution development and implementation. Test cases, scenarios, and test scripts will be completed for each type of testing and will be executed during the corresponding testing period. All test cases and test scripts will be mapped to the functional and technical requirements to measure the completeness of the testing efforts. Test results will be documented and archived for all testing that is conducted. The various levels of testing related to the eFAST platform project are described in the sections that follow.

Both state personnel and contracted resources will participate in all testing. User Acceptance Testing (UAT) will be performed by contracted business analysis resources and CPUC Program staff.

Functional Test Strategy

Functional testing will be performed to validate that the business requirements have been met. Functional testing will be structured in a building block approach. The testing will start at the lowest level of dependency (unit test) to make sure the application and programs function as required. The different levels of functional testing include the following:

Unit Testing – Unit testing is focused on confirming that each individual module or component works in accordance with the specifications. This testing will be performed by the primary solution vendor.



Integration Testing – Integration testing confirms that the eFAST platform solution is built to meet the system requirements and to ensure that separate components function correctly when used together. This testing will be performed by contracted quality assurance testers.

System or End-to-End Testing – System testing is focused on ensuring that the whole system works together. This testing is performed on hardware closely resembling the production environment and is tested using scenarios that use functionality starting from the beginning of a transaction to the end of the transaction and involves all components necessary to complete the transaction. This testing will be performed by contracted quality assurance testers.

User Acceptance Testing (UAT) – UAT confirms that the system fulfills the CPUC business and technical requirements and is accepted for use. This is the final functional test of the system. The CPUC, with support from contracted business analysts, will execute this test in an environment closely resembling the production environment.

Pilot Testing – Pilot testing confirms the behavior of the system in the production environment using live data. Pilot testing allows an opportunity to identify and resolve major system and process issues prior to implementing the remainder of the modules.

Regression Testing – Regression testing confirms that any new designs, changed designs, or added functionality does not negatively impact the production system functionality. Regression testing occurs at each point in the project where new or modified functionality is released to production.

Technical Test Strategy

The CPUC will also perform technical testing to confirm that the hardware and software perform adequately and meet the stated technical requirements. The various levels of technical testing and their purposes are as follows:

Performance Testing – Performance testing determines how well the system performs in relation to the performance requirements. The application characteristics that can be measured during performance testing include response time, movement of data through the system, resource utilization, and system behavior under varying degrees of load. This testing will be performed by the CPUC in parallel with system testing.

Security Testing – Security testing confirms that the application, network, system security, and operational recovery testing functions meet the requirements of eFAST. Security testing will include vulnerability scans and penetration tests. Security testing will be performed by a combination of CPUC staff, contracted



resources, and IVV staff. This testing will be performed by the eFAST platform project team in parallel with the functional system testing and user acceptance testing.

5.1.10 Resource Requirements

Resources required to procure, develop, and implement the proposed solution will be drawn from a combination of existing CPUC program and IT personnel, Department of Technology personnel, contracted resources, and additional positions. The eFAST project will require CPUC staff with program knowledge, application development and deployment and project management experience and skills. The anticipated one-time staffing costs required by the eFAST project are identified in Section 8, Economic Analysis Worksheets.

The new positions that will be required to maintain and support the eFAST platform after deployment are shown in the following Resource Requirements Table and will be detailed in the Budget Change Proposal to be submitted in September of 2015. These positions are necessary to support the design, development and implementation of the eFAST platform, acquire the necessary knowledge and skill to modify and maintain the platform, as well as to provide ongoing support. Tasks will include re-designing business processes, requirements, procedures, user testing, database administration, server support (updates and patches), virtualization support, business analysis and business process modeling, help desk end user support, etc., to stabilize and maintain the platform in preparation for subsequent e-filing application projects to commence.

The new IT resource PY's requested represent a holistic approach to resources required to support the eFAST platform and subsequent eFAST sub-projects: TCP, ISP, and PCMS. Resources hired in eFAST will become a portion of the redirected resources for TCP along with more new resources. Then, a portion of the new resources from eFAST and TCP will become the redirects for ISP and PCMS (i.e. rolling redirects). The accumulation of the new resources from the 4 projects are allocated for 1) maintenance of completed earlier projects and 2) redirected resources for the next projects. The eFAST resource requirements are shown in the figure below:



FY Role	One Time Costs				Ongoing Costs	
	15/16		16/17		17/18	
	PY	Cost	PY	Cost	PY	Cost
Redirected IT Resources						
Project Manager	0.67	\$85,200	1.00	\$127,801	0.00	\$0
Procurement Manager	0.03	\$4,628	0.00	\$0	0.00	\$0
Application Developer	0.17	\$22,173	0.25	\$33,259	0.00	\$0
Information Security Officer	0.03	\$5,247	0.05	\$7,871	0.00	\$0
Business Analyst	0.17	\$20,422	0.25	\$30,633	0.00	\$0
Network Administration	0.07	\$8,169	0.10	\$12,253	0.00	\$0
Service Desk Representative	0.07	\$8,169	0.10	\$12,253	0.00	\$0
Database Administrator	0.08	\$9,978	0.10	\$13,304	0.00	\$0
Operations Support	0.08	\$8,494	0.10	\$11,325	0.00	\$0
Total Redirected IT Resources	1.4	\$172,479	2.0	\$248,697	0.0	\$0
New IT Resources						
PMO Analyst	0.00	\$0	1.00	\$122,530	1.00	\$122,530
Virtualization Support	0.00	\$0	1.00	\$124,617	1.00	\$124,617
DBA/Systems Software Support	0.00	\$0	1.00	\$124,617	1.00	\$124,617
Server Support	0.00	\$0	1.00	\$113,249	1.00	\$113,249
Total New IT Resources	0.0	\$0	4.0	\$485,012	4.0	\$485,012
Redirected Program Resources						
Program Supervisor	0.13	\$23,126	0.20	\$34,689	0.00	\$0
Project Sponsor	0.03	\$6,253	0.05	\$9,379	0.00	\$0
Subject Matter Experts	0.67	\$76,588	1.00	\$114,881	0.00	\$0
Total Redirected Program Resources	0.83	\$105,966	1.3	\$158,949	0.00	\$0
Total Staff Resources	2.2	\$278,445	7.2	\$892,659	4.0	\$485,012
Contracted Resources						
Primary Solution Vendor Resources		\$0		\$983,928		\$186,000
Project Manager		\$0		\$369,600		\$0
IVV		\$0		\$174,240		\$0
CalTech Project Oversight		\$103,180		\$112,560		\$0
Other Contract Services - Procurement Support		\$200,000		\$0		\$0
Other Contract Services - Vendor Online Banking		\$0		\$250,000		\$300,000
Total Contracted Resources		\$303,180		\$1,890,328		\$486,000

PY totals may not total correctly due to rounding

Figure 2: eFAST Resource Requirements



5.1.11 Training Plan

The primary solution vendor will be responsible for developing the training plan, training materials, user guides, and online help. The primary solution vendor will be responsible for delivering application training to IT staff and selected business program users. The primary solution vendor will be responsible for conducting in-house business user training. Implementation of the eFAST platform will require training of:

- CPUC business staff who will use features of the new platform, such as tasks lists or on-demand reporting and management dashboards, and
- CPUC technical staff who will maintain and support the system.

In addition to primary solution vendor provided training, CPUC IT staff will need training on Business Process Management (BPM), Service Oriented Architecture (SOA), Linux and Oracle WebCenter. This training will be procured through instructor-led training at commercially-available training centers.

For the eFAST platform pilot, training will be required for regulated entities. Regulated entities will also require training as a part of the business program application efforts.

The CPUC envisions using a comprehensive approach to training for the above user groups. CPUC business and technical staff will be trained through a combination of training classes, technical guides, user manuals, webinars, and hands-on observation/participation. Technical training will include how to maintain the final application solution(s). Backups, DR, system, and software patching are processes already in place or will be in place for the eFAST platform as the Oracle modernization effort completes in early 2016. Training for platform specific tasks related to eFAST are already planned as eFAST uses an architecture that delivers our entire set of current applications, with the exception of the one tool suite added for eFAST. Additionally, technical staff will also be trained through on the job training in the forms of assignments and projects. CPUC staff will continue training following closure of the project.

The web-based front-end of the eFAST platform will include online help that will provide external users with step-by-step assistance including instruction guides, frequently asked questions, examples, and a 'contact us' feature. Because the main objective of the eFAST platform project is to establish the foundation and capability upon which business specific applications will be built, limited online help for external users will be necessary.



5.1.12 Ongoing Support and Maintenance

CPUC IT staff will be responsible for supporting and maintaining the eFAST platform. Four additional CPUC positions will be added to the CPUC to implement the solution and perform the following services as part of ongoing system maintenance:

- Provide second-level help desk support for technical issues and malfunctions with the system
- Respond to and resolve system malfunctions in a reasonable timeframe
- Receive and analyze requests for modifications (changes in configuration and workflows, new applications) to the system from staff, regulated entities, and the general public
 - Develop requirements for the proposed changes
 - Design and configure the proposed changes
 - Test changes
 - Provide information and training on new functionality to program staff, regulated entities, and the general public as appropriate
- Provide database administration
- Provide infrastructure support
- Provide platform administrator support
- The CPUC IT staff will manage all infrastructure hardware maintenance, backup and restoration activities

5.1.13 Information Security

Information Security controls shall be compliant with Chapter 5300 of the State Administrative Manual. The detailed security requirements for eFAST will be developed during requirements definition by reviewing the complete set of information system assets that require protection from unauthorized access. These information system assets include physical assets such as servers and network equipment, software assets such as application software and database system software, and data assets such as documents and application data.

The eFAST project will implement a solution that incorporates system security and data integrity as part of its overall solution and technical architecture. To protect the confidentiality, and privacy of sensitive CPUC data, security is enforced at the application, system and network layer. The following provide a sample of high level security requirements:

- Security safeguards that include firewalls, data encryption, secure authentication, and all necessary hardware and software and industry best practices will be put



in place. This is to ensure that the security and integrity of the data and information contained in each statement of economic interest is not jeopardized or compromised.

- All internal and external users must be authenticated before granting access to secured areas of the eFAST application resources and functions.
- The CPUC defines sensitive data as personally identifiable information (PII) which, when disclosed, could result in harm to an individual whose privacy has been breached.
- All sensitive data must be encrypted and stored in Content Server, IMLS, or ASF.
- Passwords must be encrypted within the security system.
- Passwords must meet minimum length and complexity requirements.
- Users must be required to change passwords after a specified period.
- All unsuccessful attempts to log in to the application will be logged. The system administrator can set the maximum number of unsuccessful attempts that are allowed.
- Sensitive or classified data sent over the public internet and to external systems must be encrypted using Transport Layer Security (TLS).
- As sensitive, confidential, and personally identifiable information will be stored in the IMLS and ASF databases, this information must be encrypted. All encrypted data must also be encrypted on back-up media.

5.1.14 Confidentiality

The techniques employed to ensure system security and integrity, as well as to control access to data, are discussed in Section 5.1.13 *Information Security*. These techniques also ensure the required confidentiality of the eFAST solution. The solution will adhere to the confidentiality requirements as stated in the State Administrative Manual 5300. The solution will also comply with the confidentiality requirements of the CPUC and include the signing of a Non-Disclosure Agreement by contracted and vendor employees. The confidentiality requirements for the CPUC pertain to confidential data that is defined as information, the disclosure of which is restricted or prohibited by law.

Examples of confidential information include, but are not limited to personal information about individuals as defined in California Civil Code Section 1798.3 of the Information Practices Act and manufacturer trade secret information.

5.1.15 Impact on End Users

A central time-related impact on staff will be learning to use the new system and changing existing business processes to take advantage of the efficiencies gained



through the new eFAST capabilities. External users of the system will be similarly impacted, although the majority of this impact will occur with subsequent projects to configure business process specific applications. Providing training for external users is problematic because of the number and geographic diversity of users. The eFAST platform project intends to deploy one existing business process specific application as a proof of concept: the e-filing of and internal workflow for applications for funding. Since external users in this case are telecommunication carriers and the general public, training will be limited to online self-help and tutorials. The user interface (web screen) will be designed to enable simple and intuitive use of the system, without the need for specialized training.

With the deployment of the eFAST platform, the CPUC staff most impacted will be the IT branch. The eFAST platform will provide additional tools and capabilities that must be learned, maintained, and supported. The CPUC staff processing funding applications will be impacted through the use of the new workflow and task list capabilities. Other CPUC staff will not be impacted by eFAST.

To ensure stakeholder acceptance of the new system, the CPUC will:

- Establish executive ownership of the eFAST solution and support its use throughout the organization
- Gather end user input during the implementation process to ensure the solution meets specific user needs and users feel a sense of ownership
- Provide training for end users and IT staff
- Support re-design of business processes to leverage efficiencies provided by eFAST

The CPUC project team will develop an organizational change management (OCM) plan using OCM best practices to help minimize the impact on internal and external end-users. Organizational change management refers to the activities necessary for introducing change into an organization and managing the effect of change on individual and organizational work activities within an organization. This is accomplished by setting expectations, communicating the change and effects of the change to management and staff and seeking to gain acceptance of the change by the organization. The CPUC will have responsibility for OCM activities and the acceptance of the system by internal and external stakeholders.

5.1.16 Impact on Existing System

Currently, there is no existing eFAST system. eFAST is a new platform that will be built.



5.1.17 Consistency with Overall Strategies

The proposed eFAST solution will be compatible and consistent with the overall technology standards and direction of the California Department of Technology. eFAST is in alignment with the following California IT Strategic Plan goals and objectives:

Strategic Goal 1 – Responsive, Accessible and Mobile Government

Objective 1.3 - Enhance transparency, accessibility, and openness through online and mobile solutions that promote participation by the public.

Strategic Goal 4 – Secured Information

Objective 4.1 - Protect sensitive data through robust security and privacy programs.

Strategic Goal 5 – Capable IT Workforce

Objective 5.1 – Ensure California’s IT workforce has the knowledge and skills to support the State’s technology infrastructure and implement its technology vision.

CPUC Goal: The proposed eFAST solution is also consistent with the CPUC mission to ensure that Californians receive safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy.

AB2408: The eFAST Solution aligns with AB2408, Sec. 17 which amends Section 11545 of the Government Code. Specifically, Section 11545 (b) (3) states “Minimizing overlap, redundancy, and cost in state operations by promoting the efficient and effective use of information technology.”

Goal: Minimize overlap, redundancy, and cost by implementing common tools, systems and processes for all e-servicing needs.

Solution: The eFAST Solution will provide a standard and structured set of tools, methods and services to ensure that e-servicing applications are constructed and deployed in a consistent and value-add manner.

Value Statement: The project will provide a commission-wide solution that will:

- Reduce the redundancy of key services utilized by all e-servicing applications
- Reduce the time to develop and deploy e-servicing solutions unique to each department
- Reduce the technical workload to support separate and disparate mechanisms providing the same basic service



- Provide a consolidated set of functions, tools and services to develop, deploy and manage e-servicing applications

5.1.18 Impact on Current Infrastructure

As discussed in Section 5.1.1 *Hardware*, and Section 5.1.3 *Technical Platform*, eFAST will require the addition of certain hardware and software. With the exception of the installation of the new hardware and software, there are no other anticipated impacts to the current infrastructure.

5.1.19 Impact on Data Center

With the exception of the installation of the new hardware and software, there are no other anticipated impacts to the CPUC or Department of Technology data centers.

5.1.20 System Hosting/ Data Center Consolidation

OTech Managed Services OTech Federated Data Center Agency/Department
Outsourced/Other _____

5.1.21 Backup and Operational Recovery

The CPUC will provide backup and operational recovery services to protect the data stored for eFAST. It is anticipated that the eFAST solution will be part of CPUC's organization wide Operational Recovery Plan (ORP). The hardware/software for the ORP are already purchased and in production. eFAST will leverage this ORP. These formal disaster recovery and business continuity processes are documented in the CPUC 2015 Technology Recovery Plan, dated January 2015.

5.1.22 Public Access

eFAST will not provide direct access by any user to internal State databases. Conceptually, eFAST and any future applications will intake data and documents, pass them through the CPUC DMZ where they are reviewed before being accepted into internal systems or databases

This existing level of security will be used for eFAST transactions. Conversely, any data that may need to be displayed via eFAST is done through batch or near real-time displays of data. Users cannot directly change the data through eFAST.

The eFAST platform itself will not directly be used by regulated entities; rather the business specific e-filing applications developed on the eFAST platform will be used by the general public and regulated entities.

However, the eFAST platform will provide the identity management capabilities needed for future e-filing applications. eFAST will be designed to allow appropriate levels of



application and data access based on user roles. This allows access by regulated entities and other authenticated external (public) users to be controlled through user authentication and authorization. eFAST will integrate with the existing CPUC IMLS system for authentication.

IMLS requires the establishment of authorized users through the creation of user identifications, passwords, and roles. The user identifications and passwords will authenticate the user and the roles will define the authorized functions/data the user can access.

eFAST will allow unauthenticated public access to non-secure areas of eFAST and future e-filing applications. These non-secure areas will contain information allowed and/or required to be made available to the general public, such as instructions on how to become a known user (i.e., obtain a user identification and password), and instruction on how to submit certain types of filings.

5.2 Rationale for Selection

The proposed solution is the most complete solution that meets the requirements for the eFAST platform and is consistent with the long-term vision and goals of the CPUC. The proposed solution satisfies all of the solution objectives and the high level technical and functional requirements described in this feasibility study report.

The evaluation criteria used in assessing this and other solution alternatives are:

Supports Business Strategy And Functionality - The proposed solution meets all of the objectives identified in the S1BA in Appendix A and the business requirements identified in Section 9 *Business Functional Requirements*.

Supports Technical Strategy - The proposed solution supports the CPUC enterprise IT strategy and integrates with the CPUC IT environment – both the current environment and the future environment (see 4.2 *Technical Environment*.)

Product Viability Over Time – The CPUC considered the extent to which the platform solution supports ease of development of future applications through configuration, and the extent to which the solution could reasonably be expected to be supported by the manufacturer/vendor. The proposed solution provides a high degree of flexibility and configurability, and is the product of a well-known and respected company, Oracle.

Timeliness – The CPUC considered the length of time it would take to implement the proposed solution and the other alternatives considered. Under this criterion, the proposed solution would require the shortest duration in comparison to the other alternatives.



Cost Effectiveness – The CPUC considered the cost to implement, operate and enhance the system compared to other alternatives. The proposed solution has the lowest overall cost when including both the eFAST platform and future applications costs.

Impact to IT Organization – The CPUC considered the impact to the IT organization in terms of the extent of re-skilling and/or training required to maintain and support the system. The proposed solution poses the lowest level of risk in that the CPUC infrastructure is predominantly Oracle-based and the toolset would also be Oracle-based; making the learning curve shorter.

The advantages and disadvantages of the proposed solution are shown in Table 6 below.

Table 6: Advantages and Disadvantages of Proposed Solution

Advantages	Disadvantages
<ul style="list-style-type: none">• Meets or exceeds business needs• There are many vendors who are experienced in implementing the toolset• Shortest duration to implement eFAST platform• Highly configurable; enables faster time to market for future applications• Provides more flexibility for future applications• New tools do not require programming skills to configure• New tools will attract high quality employees• Newly trained IT staff will be better prepared to meet State's strategic IT goals• CPUC already owns some tools required, reducing hardware and software costs	<ul style="list-style-type: none">• IT staff will require some training to learn new tools• While the new toolset does not require programming skills to configure, configuration can be complex and not suitable for average end users

5.3 Other Alternatives Considered

During the comparative analysis, the CPUC examined a number of approaches to satisfy eFAST requirements. The CPUC analyzed the following options to select the best solution to meet the requirements and objectives identified in Section 3:



- Continue with the existing manual processes. This alternative was rejected without further analysis because the current manual processes require costly human resources to keep pace with upcoming legislation, increased volumes, and customer service expectations.
- Purchase and implement a COTS/MOTS solution. This alternative was analyzed using the evaluation criteria described in Section 5.2 *Rationale for Selection*. After evaluation, this alternative was rejected because it does not represent the best value for CPUC. While it could meet the business needs, it would be more costly, take more time to implement, and have a greater impact to the CPUC IT infrastructure and staff.
- Custom build a solution. After evaluation, this alternative was rejected because it does not represent the best value for CPUC. It presumably could have met the business needs, but would not align with Department of Technology Strategic Goal 5, CPUC IT strategies, or AB2408. Additionally, it would be more costly and take more time to implement.

A full economic analysis was undertaken on only one additional alternative (Alternative 1) other than the proposed solution. This alternative is described in the following section.

5.3.1 Alternative 1– Commercial/Modifiable Off-the-Shelf (COTS/MOTS) Application

Alternative Description: This alternative is to configure the eFAST Platform application using a base COTS/MOTS product with some additional tools to meet functionality needs. 80% or more of the effort would be configuration, with 20% or less being customization/modification using the existing CPUC development environment and infrastructure for custom Application Programming Interfaces (APIs) or other integration needs.

The advantages and disadvantages of the Alternative 1 are shown in Table 7 below.

Table 7: Advantages and Disadvantages of Alternative 1

Advantages	Disadvantages
<ul style="list-style-type: none"> • Meets business needs • Contains more ‘out of the box’ features • Product tools already integrated within the application • Configurable; enables faster time to market for future applications 	<ul style="list-style-type: none"> • More restrictive in being able to configure for CPUC use; not as much flexibility for future applications • May or may not be compatible with CPUC technical infrastructure and environment • Most expensive to purchase • Most expensive to build future applications



Advantages	Disadvantages
<ul style="list-style-type: none"> • Many vendors are experienced in implementing the likely COTS/MOTS that would be used • Some functionality does not require programming skills to configure • New tools will attract high quality employees • Newly trained IT staff will be better prepared to meet State’s strategic IT goals 	<ul style="list-style-type: none"> • Re-skilling will be required for IT staff • Not the shortest duration to implement eFAST platform

Recommendation

This alternative is not recommended based on the how the disadvantages outweigh the advantages (see Table 7).

5.3.2 Alternative 2– Custom Build

Alternative Description: This alternative is to construct the eFAST Platform using the existing CPUC development environment and infrastructure (software, middleware, hardware, etc.), for which the effort would be fully (100%) custom development. Configuration capabilities for future use would also have to be custom built during this effort.

The advantages and disadvantages of Alternative 2 are shown in Table 8 below.

Table 8: Advantages and Disadvantages of Alternative 2

Advantages	Disadvantages
<ul style="list-style-type: none"> • Presumably meets business needs • Presumably does not require new software or hardware • Many vendors perform custom development work • CPUC IT staff would require no re-skilling and minimal training 	<ul style="list-style-type: none"> • Configuration capability would have to be constructed • Does not enable faster time to market for future applications • Programming skills would be required to maintain the system • Loss of opportunity to attract high quality employees with new tools • Loss of opportunity for IT staff to be better prepared to meet State’s strategic IT goals with additional skills and training • Does not align with AB2408



Advantages	Disadvantages
	<ul style="list-style-type: none">• More costly than proposed solution• Longest time to implement

Recommendation

This alternative is not recommended based on the how the disadvantages outweigh the advantages (see Table 8).



6.0 Project Management Plan

The CPUC recognizes the importance of using industry best practices for managing the eFAST Project. This section describes how this project will be managed at a high level. This project will follow the project management processes described in the California Project Management Methodology (CA-PMM) and the best practices identified in the Project Management Institute's Project Management Body of Knowledge (PMBOK®.)

The following project planning information will be elaborated upon in the e-FAST Project Charter. The Project Charter will be the first project deliverable following approval of this FSR.

The CPUC will initiate a project to implement the eFAST platform that will follow existing CPUC development standards, including a structured methodology for the development life cycle from requirements elicitation and design through maintenance. A phased approach will be used to mitigate risk by providing incremental elaboration of the solution.

Contracted Resources Procurement

CPUC will conduct procurements for contracted resources by executing the following activities:

- Select the appropriate solicitation vehicle: RFO, CMAS, or ITMSA. Multiple solicitations are expected due to the need for independence among certain types of contracted resources, such as IV&V, development staff augmentation, business analysis and testing resources, project management analyst, payment solution vendor and for the primary solution vendor.
- Develop the solicitation documentation using recently completed procurements for contracted resources as a template or example.
- Conduct vendor solicitations and proposal evaluations.
- Award and execute the contracts.
- Develop a contract management plan.

Requirements and Design

The combined CPUC, contracted resources, and primary solution vendor project team will be responsible for the following planning and design activities:

- Develop an understanding of the current business operations and objectives.
- Using the business functional requirements in Section 9, *Business Functional Requirements*; conduct requirements definition sessions with program staff to develop the detailed software development and configuration requirements to support the eFAST platform.
- Obtain approval of requirements and design specifications.
- Conduct business and technical joint application design (JAD) sessions to develop the functional and technical eFAST solution. .



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- Develop application, data, and implementation strategies.
 - Design organizational and business process change management strategies, and develop contingency plans to ensure business processes are not adversely impacted.
 - Develop and maintain requirement traceability matrices.
 - Develop and confirm the functional rollout strategy.
 - Develop and confirm organizational change management strategies.
 - Develop and confirm business process change management strategies.
 - Develop and confirm training strategies.
 - Develop and confirm platform architecture.
 - Design and develop testing strategies and test scenarios.

Design and Development

The project team will perform the following development activities:

- Configure the best of breed toolset to develop the eFAST platform.
- Develop the custom application interfaces needed to integrate with Content Server, IMLS, and ASF.
- Design and develop end-user training modules and manuals.
- Design and develop organizational and business process change management activities necessary to successfully deploy the final solution.
- Ensure Information Security and SAM 5300 policy compliance.

Implementation

The project team will perform the following implementation activities:

- Conduct system integration testing.
- Work with CPUC staff to define the user acceptance criteria and testing process.
- Conduct training for CPUC staff.
- Support organizational change management activities for internal and external stakeholders.
- Provide technical knowledge transfer to CPUC IT staff.
- Conduct the beta test or pilot.
- Deploy the eFAST platform into the production environment.

6.1 Project Organization

The project is organized and conducted in conformance with the California Project Management Methodology (CA-PMM) and the PMBOK®. The state Project Manager



will oversee and coordinate all areas of the project. Regularly scheduled meetings will be held for the purposes of tracking project progress, providing direction and support, and resolving issues/risks that have been identified and elevated to this level. The primary solution vendor will be required to assign a Technical Project Manager responsible for the design, development, and implementation of technical components, in addition to coordinating the daily activities of the primary solution vendor technical team.

The figures below depict the California Public Utilities Commission organizational structure and the eFAST project organizational structure.

California Public Utilities Commission

January 1, 2015

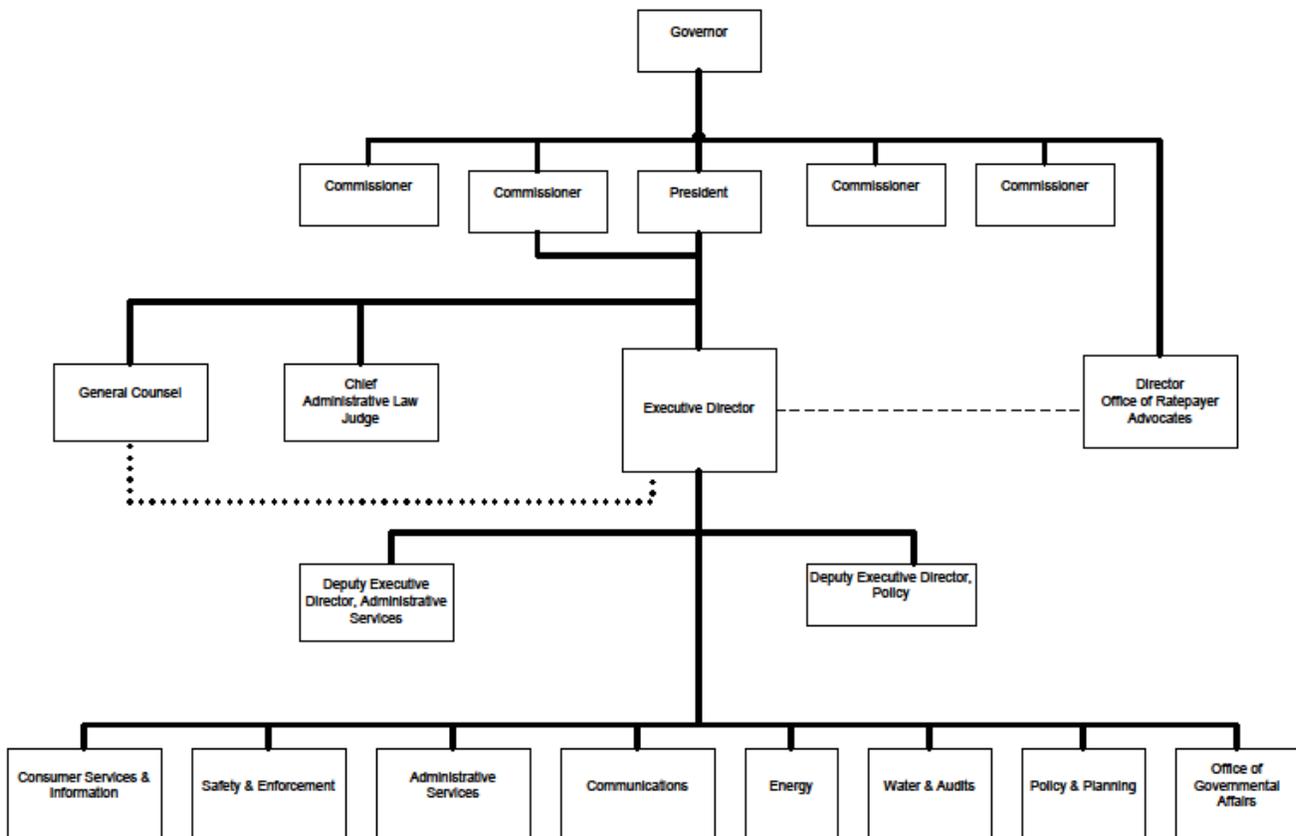


Figure 3: CPUC Organization Chart

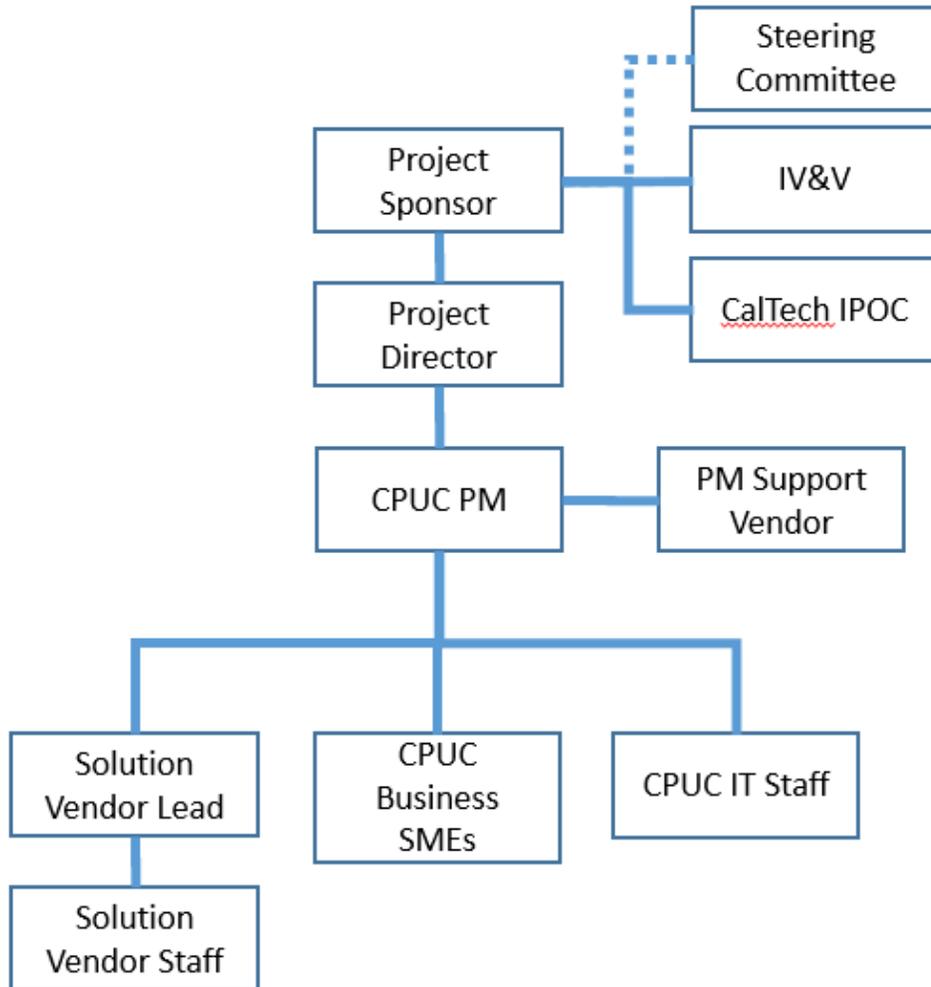


Figure 4: eFAST Project Organization



Project Manager Qualifications

The Project Manager must have the skills and knowledge to lead the project through implementation. The Project Manager will be a PMI certified Project Management Professional and have experiences in applying PMI standard processes and procedures in projects of similar size, scope, and complexity. The CPUC Project Manager and project team prepare, review, finalize and approve documents affecting project operations. The Project Manager must have the appropriate technical experience, as well as possess a minimum of three years as a Project Manager or key team member on an information technology (IT) project.

Project Roles and Responsibilities

Executive Steering Committee

- Develop and maintains a set of project “Vision and Goals”
- Develops the high-level project scope
- Reviews and approves project costs associated with the project
- Arranges funding
- Manages project operational and political issues and risks
- Champions the efforts of the project team
- Coordinates with related projects and program
- Develops policy
- Obtains support/agreement from stakeholders
- Resolves obstacles
- Communicates to the stakeholders

Project Sponsor

- Owns, and is accountable for, the overall success of the project
- Champions the project, Project Manager, and project team
- Sets and prioritizes project objectives
- Ensures the project is adequately funded
- Ensures timely availability of needed resources
- Ensures sustained buy-in at all levels
- Approves the Project Charter, PMP, and significant changes in scope, cost or schedule
- Empowers the Project Manager with the appropriate authority
- Ensures an appropriately skilled Project Manager is selected for the project



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- Provides final approval of project deliverables
 - Receives reports of all high severity risks and may be called upon to assist in risk mitigation
 - Resolves issues and disputes regarding scope, cost, schedule, and quality of the project
 - Serves as highest level of escalation for issues/decisions

Project Manager

- Responsible for the success of the project by managing scope, cost, schedule, quality
- Ensures deliverables and functionality are achieved as defined in the Project Charter and project plans
- Ensures effective management of all resources assigned to the project
- Serves as the primary liaison between the project and the Project Sponsor
- Manages and communicates project issues, risks, changes, and decisions and escalates, as needed, to the Project Sponsor
- Ensures that promised benefits are realized
- Communicates project status to Project Sponsor, CPUC Management and other stakeholders
- Plans the project, including the creation and maintenance of the Project Management Plan
- Ensures deliverables and functionality are achieved as defined in the Project Charter and subsequent Project Management Plan
- Accountable to the Project Sponsor for all project office management related activities
- Plans, directs, and oversees the day-to-day activities of the project team
- Develops and/or oversees the master project schedule and all other project work plans.
- Principal point of contact for control agencies, project contractors, and stakeholders
- Ensures that the project is implemented within the budget constraints
- Directs and manages project work in conformance with project scope, schedule, cost and quality and all other subsidiary plans incorporated into the overall Project Management Plan, as well as the Staffing Plan
- Accountable for the development, maintenance, and adherence to the Project Office infrastructure and support methodologies



-
- Responsible for the overall management of the contracted resources
 - Facilitates Executive Steering Committee meetings

Project Management Analyst

- Leads the effort to identify, document, manage and track risks, risk mitigations and contingencies, lead risk identification sessions, and ensuring regular review as described in the Risk Plan
- Monitors risk management efforts to ensure they do not adversely impact the project
- Maintains the project Risk Register
- Produces Risk Management Metrics per the Risk Management Plan
- Modifies the risk management plan to include agreed actions to avoid or reduce the impact of risks
- Manages change control by coordinating the change request process as described in the Change Management Plan
- Develops and maintains the change request log
- Produces regular change management reports
- Acts as the Project Librarian to managing documentation, and assists with administrative support activities
- Reviews project activities for compliance with procedures and standards
- Assists in tracking and reporting the overall project progress

Technical Project Team Members

- Completes assigned tasks and deliverables as requested
- Provides estimates, status reports and project updates to the Project Manager
- Communicates with the Project Manager and Program Manager to ensure they are informed of all issues and decisions that may affect the project implementation
- Participates in the design
- Completes design, development, and implementation activities of the solution in accordance with the stated functional, security and technical requirements
- Conducts unit, system, integration, and end-to-end testing
- Conducts stress, volume, security, and performance testing
- Develops and implements the interfaces listed in Section 5.1.7
- Responsible for validating the database design



-
- Responsible for the installation and implementation of the application

Business Analysts / System Testers

- Completes assigned tasks and deliverables as requested
- Provides estimates, status reports and project updates to the Project Manager
- Communicates with the Project Manager and Program Manager to ensure they are informed of all issues and decisions that may affect the project implementation
- Participates in and/or leads requirements elicitation and definition
- Participates in the design
- Conducts system, integration, and end-to-end testing
- Assists in development of user training materials
- Delivers or assists with delivering end user training

Procurement and Contract Analyst

- Oversees and manages the procurement process as described in the Procurement Management Plan
- Ensures consistency and continuity throughout the entire procurement process and conformity to procurement standards, rules and regulations
- Prepares and maintains the procurement schedule
- Manages evaluation of proposals or offers and the selection of vendors
- Coordinates contract negotiations
- Manages and tracks contract and vendor relations
- Negotiates amendments, reviews work authorizations and invoices, and ensures that all contractual terms and deliverables are met

Organizational Change Management Analyst

- Identifies resistance and works to develop and implement corrective actions
- Ensures knowledge transfers occurs continuously through all the implementation phases

Program Manager

- Responsible for representing the business program in the project
- Makes business process decisions
- Manages subject matter experts (SMEs)

***Subject Matter Experts***

- Participates in business process re-engineering
- Identifies business rules and policies that must be enforced by the proposed solution
- Identifies required data for system tables
- Answers key business questions
- Acts as primary knowledge source for establishing business requirements
- Participates in the UAT activities to ensure the proposed system meets all business requirements
- Participates in business processing reengineering and business requirements workshops as they pertain to the system interfaces within scope for this project
- Participates in the UAT of the system interfaces to ensure that they meet the business requirements and successfully support business needs

Department of Technology Project Oversight

- Evaluates the project to ensure that it is following a structured and defined approach
- Prepares periodic project assessments and progress reports
- Collaborates with the project manager regarding project risks and risk mitigation strategies as well as issue monitoring and resolution
- Provides feedback and direction as needed
- Ensures processes for quality assurance are present and executed
- Reviews the project system development documents and deliverables to ensure accuracy and completeness
- Develops metrics to monitor project quality
- Oversees user acceptance testing activities
- Collaborates with the Project Sponsor to ensure project success.

Independent Verification and Validation (IV&V)

- Evaluates the project to ensure that it is following a structured and defined approach
- Prepares periodic project assessments and progress reports
- Collaborates with the project manager regarding project risks and risk mitigation strategies as well as issue monitoring and resolution
- Provides feedback and direction as needed



- Ensures processes for quality assurance are present and executed
- Reviews the project system development documents and deliverables to ensure accuracy and completeness
- Develops metrics to monitor project quality
- Oversees user acceptance testing activities



6.2 Project Plan

6.2.1 Project Phasing

The eFAST project will consist of four (4) main phases. Phase 1 will be the installation and setup of the hardware and software from the best of breed toolset. Phase 2 is configuration of the base platform using the toolset, closely followed by Phase 3 which is the integration of the base platform with Content Server, IMLS, and ASF. Phase 2 and 3 will, out of necessity, overlap to some degree, but are expected to use different development resources. Phase 4 is the Pilot using the CPUC's ASF applications for funding business process. The phases are described further below.

Phase 1 – Installation and Setup:

The best of breed toolset is installed in the CPUC and OTech data centers, and the software is setup to accommodate configuration and development.

Phase 2 – Platform Configuration

The best of breed toolset is configured to provide much of enterprise-wide set of base functionality and capabilities that comprise the eFAST platform offering, including:

- Business process management (workflow)
- Reporting
- Customer service management
- Information sharing
- Portal transactions
- Solution administration

Phase 3 – Platform Integration

The product of Phase 2 (the configured platform) is integrated with the CPUC' existing document management system, Content Server; the existing identity management system, IMLS; and the payment vendor to be procured to facilitate online payment capability. Phase 2 completes the enterprise-wide set of base capabilities for eFAST by providing the following:

- Document management (integration with Content Server)
- Identity management (integration with IMLS)
- Payment of fees and fines (integration with payment vendor)

Phase 4 – Pilot

The fully configured and integrated base platform is used to develop a pilot business application. The relatively straight-forward business process of receiving applications for



funding is envisioned to be used for this purpose. The ASF application will require configuration of the base platform to:

- Create screens to accept applications for funding
- Integrate with the ASF application system
- Store complaint data in ASF
- Store any files attached to the application in Content Server
- Configure simple workflow routing of applications
- Provide basic reporting (new receipts, inventory, aging, etc.)
- Allow posting of responses to the utility.

The pilot will be used as the proof of concept and to gather lessons learned for use in future applications.

6.2.2 Project Schedule

The team will develop a Project Management Plan (PMP) document to provide the project stakeholders with an approved working guide for how the e-FAST project will be managed. The PMP will describe how to manage the activities of the project, the prime contractor, and other supporting organizations throughout the project lifecycle stages to ensure project objectives are met in a timely, efficient, and effective manner. The PMP will contain the following sub-plans:

- Change Management Plan
- Communications Plan
- Configuration Management Plan
- Contract Management Plan
- Cost Management Plan
- Governance Management Plan
- Issue Management Plan
- Procurement Management Plan
- Quality Management Plan
- Requirements Management Plan
- Resource Management Plan
- Risk Management Plan
- Schedule Management Plan
- Scope Management Plan
- Organizational Change Plan
- Maintenance and Operations Plan



The eFAST Project will be managed with the following scheduled milestones. A detailed project schedule will be developed during project implementation. The schedule and dates in the attached project schedule are for planning purposes only.

Table 9: Key Activities and Milestones

Task Name	Duration	Start	Finish
CPUC eFAST Consolidated Schedule	673 days	11/2/2015	5/30/2018
eFAST Project Schedule	673 days	11/2/2015	5/30/2018
Project Pre-Work Start	0 days	11/2/2015	11/2/2015
Project Start	0 days	7/1/2016	7/1/2016
Contracted Resources Procurement	175 days	11/2/2015	7/1/2016
Hardware and Software Procurement	75 days	11/2/2015	2/12/2016
Project Management	341 days	2/16/2016	6/6/2017
Requirements Validation	61 days	7/4/2016	9/27/2016
System Planning	133 days	8/1/2016	2/1/2017
Phase 1 - Installation and Setup	35 days	4/1/2016	5/19/2016
Phase 2 - Core Configuration	165 days	8/2/2016	3/20/2017
Phase 3 - External Systems Integration	107 days	10/27/2016	3/24/2017
Phase 4 - Pilot	66 days	3/27/2017	6/26/2017
Project End	0 days	6/26/2017	6/26/2017
Project Close-Out	242 days	6/27/2017	5/30/2018

6.3 Authorization Required

The project must be approved by the California Department of Technology. Funding for CPUC resources must be approved by the Department of Finance and the Legislature.



7.0 Risk Register

The Risk Management Plan (RMP) is primarily based upon the standard risk management approach recommended in the PMBOK and defined by the California Technology Agency CA-PMM risk management process. Where appropriate, elements of the California Technology Agency's Information Technology Project Oversight Framework are also used. This plan will be updated as necessary and executed for the eFAST Project. The Risk Management Methodology:

- Identifies project risks
- Analyzes identified risks
- Quantifies the risks impact on the project
- Quantifies the likelihood the risk will occur
- Prioritizes identified risks
- Develops appropriate and applicable preventive measures
- Develops mitigation strategies to limit the risks impact on the project
- Assigns team members to track, review and report on specific risks
- Develops risk contingency plans as needed to limit risk effects
- Allocates resources to mitigate the effects of risk events
- Develops a risk closure process

7.1 Risk Identification

A risk is an event or condition that, if it occurs, has a positive or a negative effect on at least one project objective, such as scope, schedule, or budget. A risk may have one or more causes and, if it occurs, one or more impacts. A risk may be within or beyond the control or influence of the project team. The value of risk management is to identify, assess, plan for, and monitor risks before they occur, and if necessary, manage responses after they occur.

When work on the project begins, CPUC and the solution vendor will agree upon common standards and tools to identify, mitigate, and manage risks. The resulting data will form the risk baseline. Prior to the start of the Design and Development Phase, a risk identification and planning session with the solution vendor will be conducted to re-baseline risks to reflect the current project conditions and the specifics of the eFAST Project solution.

As new risks are identified during the life of the project, risks will be analyzed. The CPUC Project Manager will convene a Risk Management Team meeting at least



monthly to discuss newly identified risks and ongoing risk management efforts. This meeting may be held jointly with the solution vendor's Project Manager and key staff when appropriate to the identified risk.

Any project team member or stakeholder can identify a risk at any time and should use the Risk Intake Form to do so.

If a potential risk is identified orally, the Project Manager (or his/her designee) will complete the Risk Intake Form. Additional information may be added to the form during the Risk Management Team meeting as the potential risk is evaluated.

Information will be captured on the Risk Intake Form by anyone identifying a risk. The CPUC PMO Analyst will develop the project's Risk Register to ensure that all identified risks are captured in a single place. Risks are only entered into the Risk Register once the Risk Management Team has agreed that the identified risk is truly a risk to the project.

Written analyses, recommendations, senior management directives, and policy papers related to risks will be archived in the project library.

7.2 Risk Escalation

Throughout the risk identification, tracking, and control process, there will be times when the risk must be escalated, either because the mitigation approach requires the approval of those above the Project Manager or the risk itself cannot be addressed with an approach that all parties agree upon.

The Project Manager has the authority and responsibility to identify and develop mitigation strategies for all risks. When a risk mitigation strategy involves increasing scope, schedule or budget beyond the Project Manager's authority, the Project Manager must escalate the risk to the Project Director. Similarly, if the mitigation strategy is beyond the authority of the Project Director, the Project Director must escalate the risk to the Project Sponsor. The Project Sponsor will escalate the risk to the Executive Steering Committee depending upon impact to policy; impact to scope, schedule, or budget; or sensitivity with stakeholders. High probability, high impact risks are to be identified as such to the Project Sponsor regardless of mitigation strategies. These are also to be forwarded to CTA.

Within five business days of acceptance, risks that are not high probability, high impact risks must be escalated to the Project Director for resolution. If the Project Director does not have the authority to approve the mitigation plan, the risk is to be escalated by the Project Director within three business days of receipt to the Project Sponsor. Similarly, if the Project Sponsor does not have the authority to approve a mitigation plan, the Project Sponsor will identify the risk to the Executive Steering Committee at its next meeting, or will request an ad hoc meeting of the Executive Steering Committee to address the risk.



If the risk is a high probability, high impact risk, the Project Manager must raise it to the Project Director within one business day of acceptance as a risk by the Risk Management Team. The Project Director will address the risk if it is within the authority of the Project Director, but will also identify it as a high probability, high impact risk to the Project Sponsor. If the Project Director does not have the authority to resolve it or if it is of a sensitive nature, the Project Director will escalate it within two business days to the Project Sponsor to be addressed. Even if the Project Sponsor has the authority to resolve it, the Project Sponsor must identify it as a high probability, high impact risk to the Executive Steering Committee at its next regularly scheduled meeting. If the Project Sponsor does not have authority to resolve it or chooses to escalate it for resolution, the Project Sponsor must convene a meeting of the Executive Steering Committee and present it within five business days.

If the solution vendor, at any time in the process, believes a risk is not being properly addressed, the solution vendor can request escalation through the Project Manager. The process identified above will be followed until the risk is addressed in a manner acceptable to both the CPUC and integration vendor. The Executive Steering Committee is the final decision-making body for addressing the risk whether or not the integration vendor agrees with how the risk is being addressed.

7.3 Risk Monitoring

During the life of the project, risks and associated actions need to be monitored. During the Risk Management Team meetings, the assigned risk owner will provide the status of risk-related activities and the Risk Register will be updated as appropriate.

As a robust tracking and control tool, the Risk Register can capture more than the information identified above. In addition to the risk, probability, potential impact, timing, and the risk level calculation, the Risk Register can include the following:

- Cause – Trigger(s) that create the conditions for the risk occurring
- Consequence – the results of the realization of the risk
- Avoidance Plan - Attempts that are made to overcome the risk by trying to stay away from it or eliminate it
- Mitigation Plan - The way in which the probability of the risk and impact to the project is reduced, but not fully avoided
- Trigger Events - Occurrences or activities that indicate that a given risk will occur, or is already occurring
- Event Horizon – the date when the risk, if left unresolved, will cause the greatest impact to the project (i.e. the point of no return)



-
- Owner - The individual on the team who has been assigned the responsibility for monitoring the risk and letting the team know if the risk management plan needs to be activated
 - Response Plan Effectiveness - An assessment of the degree to which the risk management activities were effective in dealing with the risk
 - Residual Risks - Risks that remain even though risk management activities took place as planned
 - Secondary Risks - Risks that are actually created through the implementation of the planned risk management activities
 - Risk Status - Statement of the current condition of the risk
 - Closure Date - The date the risk was determined to be longer possible or a threat to the project

In addition to ensuring the Risk Register is current, the Project Manager will ensure risks are being addressed by the assigned owner. To make this determination, the database must be able to provide information on:

- Top ten risk items (based on priority ranking)
- Number of risk items resolved to date
- Number of new risk items since the last report
- Number of risk items unresolved

In addition to the database providing the above named information, the Project Manager collects metrics to track unresolved risk items on the critical path.

The Risk Register will be the principal repository of risk history. The Project Manager also is responsible for obtaining the update/status information from risk management meetings and recording it in the Risk Register.

The Project Manager reports risk description, rating, and status for high priority risks via the Monthly Periodic Project Status Report, which is used to brief the Independent Project Oversight Consultant (IPOC) and is shared with the Project Director, Sponsor, and CTA. High priority risks are reported to CTA within 15 calendar days of identification. Risk-related information may also be used by the Project Director to brief the Executive Steering Committee. Customized reports may be developed for this purpose.

Any risk activities (monitoring, analysis, plan development, mitigation actions, and status reporting) that consume significant staff resources or require coordination will be placed on the project schedule. The Project Manager, in consultation with the Project



Management Team and the solution vendor's Project Manager, will determine what constitutes significant resources or coordination effort.

Status monitoring and reporting activities that are inclusive to Risk Management meetings and do not result in significant redirection of staff resources will be absorbed by project staff.

At the Project Manager's discretion critical due dates and risk-related milestones may be added to the project schedule.

7.4 Measuring the Effectiveness of the Risk Response Plans

At each Risk Management Team meeting, the risk owner will summarize the status of the risk and the team will determine whether the risk has been eliminated or whether additional monitoring or follow-up actions are required. If the risk has been eliminated, the Project Manager will mark the risk closed in the Risk Register. The risk owner will ensure all materials related to the risk response have been provided to the Project Manager for archiving in the project library.

At the Project Manager's discretion, a risk that has been closed may be reopened, rather than entering a new but similar risk into the database. In the case of reemerging risks, analysis will include why the item was not fully resolved the first time and the likelihood interventions exist that permanently resolve the risk at that time. Risks of a cyclical nature (such as those dependent on legislative or budget cycles) may be closed and reopened on a cyclical basis if the nature of the risk is well understood. Otherwise, if a previously closed item has remained closed for six months, the recurring risk will be opened as a new risk.

The Independent Project Oversight Consultant will provide independent reviews of the eFAST Project Team's risk analysis process and decisions as part of its responsibilities for independent project oversight as directed in the Chief Information Officer's Independent Project Oversight Framework. Independent Project Oversight review focuses on consistency with recognized best practices and industry standards for risk management, from which the eFAST Project's approach has been developed. Findings and recommendations are communicated to the eFAST Project Sponsor.

After the risk action plan has been executed, the Risk Management Team will evaluate the success of the risk action plan for the following:

- Was the risk mitigated and/or contained?
- Did the mitigation create other risks?
- Were there any negative impacts caused by the mitigation, such as to schedule or scope?

The following is the initial Risk Register for the eFAST project as of the publication of the FSR. It is a subset of the CA-PMM Workbook Risk Register, where only the



currently known risk parameters have been specified. The factor calculations were done according to the CA-PMM instructions.



7.5 eFAST Sample Risk Register

The CPUC understands that risk management planning is a vital component of ensuring project success. A disciplined approach to risk management includes developing a Risk Management Plan that identifies and documents potential risks (risk identification), identifies ways in which they can be minimized (risk mitigation planning), and includes policies and procedures to monitor and resolve risks that arise (risk tracking and control).



Table 10: Sample Risk Register

ID	Risks	Probability (1 - 5)	Potential Impact (1 - 5)	Risk Management Action Must Begin...	Risk Level	Cause	Consequences	Mitigation Plan
1	The vendor RFO may not be ready for release by end of November 2015.	4.00	5.00	Within the next 6 months	20.00	Delays in FSR approval	The project will be delayed	Provide drafts of FSR to CTA to obtain early feedback and streamline the approval process. Coordinate approval of FSR with CTA.
2	Incomplete functional requirements may create the risk that the vendor solution lacks some required functionality	2.00	5.00	Over a year from now	10.00	Insufficient stakeholder involvement in the development and validation of the functional requirements	A system that does not adequately meet the needs of the business or the public.	Conduct extensive outreach to internal and external stakeholders in order to develop a set of functional requirements that will meet the needs of the users - thoroughly involve SMEs. Thoroughly document functional requirements in the procurement document.
3	CPUC staff with the required project management, business, and technical expertise may not have sufficient time available to develop/test the eFAST solution	3.00	5.00	Over a year from now	15.00	Other projects (or operational support) competing for limited resources	Lack of appropriate staff will impact the schedule and could impact the quality of the end product	Develop a comprehensive resource management plan that includes roles / responsibilities as well as "succession" plans should the primary resources become unavailable Obtain additional project management services resources (state or contracted resources) Include the use of staff augmentation contractors as well as DDI contractors
4	Scope creep, changes, or new requirements may delay project implementation	3.00	4.00	Over a year from now	12.00	New legislation is passed, business processes are refined, priorities are changed Insufficient requirements validation or change-control procedures	Change in schedule and/or cost	Clearly define business objectives and functional requirements. Maintain involvement of stakeholders in requirements development early and often throughout the life of the project. Use the same SMEs for the entire project starting with development of the FSR through implementation to assure continuity and consistent requirements. Establish system functionality governance to identify final arbiter of requirements to help assure consistent requirements. Implement Organizational Change Management at the beginning of the project. Establish and follow strong change-control procedures which take a holistic approach to managing the requirements and associated costs of any deviations from the agreed design



PUBLIC UTILITIES COMMISSION
Feasibility Study Report
 eFiling Administration Support (eFAST)

ID	Risks	Probability (1 - 5)	Potential Impact (1 - 5)	Risk Management Action Must Begin...	Risk Level	Cause	Consequences	Mitigation Plan
5	Insufficient budget allocation could require changes to the project	2.00	5.00	Six months to a year from now	10.00	Budget shortfall and or statewide cuts. Missing requirements, unclear requirements, scope considered overreaching or unachievable	Worst case: the new system cannot be implemented. Lesser budget issues could lead to a reduction in scope, functionality, and/or application quality	Use appropriate project management techniques to closely monitor the quality and scope of the project as well as the vendor's performance under the contract. Work closely with CTA to provide sufficient information to obtain approval of requested funds
6	Vendor system costs (or Bids) may exceed estimates	2.00	5.00	Six months to a year from now	10.00	Insufficient requirements management or monitoring of vendor performance	Possible reduction in scope, functionality, and/or application quality	Ensure that the project procurement is a fixed price, deliverables-based contract with adequate quality metrics.
7	Departure or reassignment of CPUC eFAST project staff, management, and/or SMEs could delay project implementation.	4.00	5.00	Over a year from now	20.00	Other projects (or operational support) competing for limited resources	Lack of appropriate staff will impact the schedule and could impact the quality of the end product	Develop a comprehensive resource management plan that includes roles / responsibilities as well as "succession" plans should the primary resources become unavailable
8	If there is a change in executive management team with different priorities then project timeframe may incur a deadline slippage	3.00	4.00	Over a year from now	12.00	Changes in Executive Management and elected officials could impact the project schedule	Delay in implementation or increased cost due to scope modification. The worst case would be project cancellation if it is not a priority.	Require that the new system design employ a flexible architecture (e.g. rules-based) that will allow for significant changes to be incorporated without significant re-design of major components
9	External system owners are unable to permit integration with eFAST	4.00	2.00	Over a year from now	8.00	External System owners may not have the staff, time, or budget to integrate with CPUC; external system policies may disallow integration with other agencies; external systems may be	May result in reduction or delay of anticipated efficiencies and/or savings	Begin communication with external system owners at Project Initiation; develop alternate solutions to meet business needs Indicate external integration requirements as 'Nice to Have' rather than 'Must Have'



8.0 Economic Analysis Worksheets (EAWs)

The worksheets included in this section provide the costs associated with the proposed solution for developing and implementing the eFAST platform.

An explanation of the contents of each worksheet can be found in the instructions for Economic Analysis Worksheets (EAWs). The cost and resource assumptions made while creating the EAWs are provided below.

1. There is no eFAST system in place currently. Consequently, there are no existing IT or Program costs for the eFAST *platform*; all existing IT and Program costs are accounted for in the business program application FSRs that will utilize the eFAST platform to achieve their goals.
2. The eFAST platform will require additional positions within the IT branch. These positions are identified in the EAWs, and in Section 5.1.10 *Resource Requirements*.
3. The FSR will be approved in October 2015.
4. The procurement of contracted services will begin in November 2015 and end in June 2016.
5. The project will begin in July 2016 and end in June 2017.
6. On-going maintenance and operations will be in FY 2017/18. The EAWs reflects vendor support after implementation for one year.
7. Independent Project Oversight (IPO) services are based on contracting with California Department of Technology, IT Project Oversight and Consulting Division at an estimated cost of \$215,740.
8. Independent Verification and Validation (IV&V) services are based on a quarter of a full time position and have been estimated at \$174,240.
9. Project Management contract services are based on a full time position and have been estimated at a cost of \$369,600.

Return on Investment

The return on investment (ROI) for eFAST is the savings to be achieved through the implementation of future business program applications in the areas of cost avoidance in program staff, cost reduction/avoidance in future IT projects that would have created custom siloed portals, and redirection of staff to focus on enforcement activities for the benefit of public safety; and through increased revenue as a result of increased carrier and entity compliance through process simplification.

CPUC is requesting CTA approval of this FSR for the procurement, development, and implementation costs of the CPUC eFAST Platform Project. A breakdown of the total estimated project cost, by state fiscal year, is presented in the tables in Section 8.2 *Proposed Alternative Worksheet – Best of Breed Toolset* and 8.3 *Alternative System Worksheet – Commercial/Modifiable Off-the-Shelf (COTS/MOTS) Application*, and discussed on the following pages.



8.1 Existing System Cost Worksheet

The eFAST Project is to develop and implement a standard, enterprise-wide platform for electronic filing (e-filing) of documents and data. There is no eFAST system in place currently. Consequently, there are no existing baseline costs for the eFAST platform.

		EXISTING SYSTEM/BASELINE COST WORKSHEET													
SIMM 20C, Rev. 06/2014		Agency/state entity: Public Utility Commission										Date Prepared: 06/01/2015			
Project: eFiling Administration Support (eFAST)		All costs to be shown in whole (unrounded) dollars.													
		FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
		PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information															
Technology Costs															
Staff (salaries & benefits)	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Hardware Lease/Maintenance		0		0		0		0		0		0		0	0
Software Maintenance/Licenses		0		0		0		0		0		0		0	0
Contract Services		0		0		0		0		0		0		0	0
Data Center Services		0		0		0		0		0		0		0	0
Agency Facilities		0		0		0		0		0		0		0	0
Other		0		0		0		0		0		0		0	0
Total IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Continuing Program Costs:															
Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Other		0		0		0		0		0		0		0	0
Total Program Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL EXISTING SYSTEM COSTS	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

8.2 Proposed Alternative Worksheet – Best of Breed Toolset

Estimated Project Cost

The total estimated project cost is \$5,684,942. The one-time cost is \$4,392,771 and ongoing cost is \$1,292,171. A breakdown of the total estimated project cost, by state fiscal year (FY), is discussed on the following pages.

One-Time Cost

The one-time project cost for the eFAST Project is comprised of the following areas and discussed below:

- State Personnel
- Hardware
- Software
- Contract Services
- Data Center
- Agency Facilities
- Staffing Training and Travel



State Personnel

The total estimated one time state personnel cost is \$1,171,104. Newly hired and redirected staff will support the eFAST Project. State personnel will support contract services procurement in FY 15/16 and development and implementation in FY 16/17. The CPUC will use the Budget Change Proposal process to hire IT staff positions beginning July 1, 2016 to support development and implementation of the eFAST solution. A breakdown of this cost is provided in the table below.

Table 11: Summary of One-Time Project State Personnel Cost (Proposed)

CLASSIFICATION	PY	FY 2015/16	PY	FY 2016/17
IT Staff				
Re-directed IT Staff				
Data Processing Manager I	0.67	\$85,200	1.00	\$127,801
Senior Information Systems Analyst (Supervisor)	0.03	\$4,628	0.00	\$0
Senior Programmer Analyst (Specialist)	0.17	\$22,173	0.25	\$33,259
Data Processing Manager III	0.03	\$5,247	0.05	\$7,871
Staff Information Systems Analyst (Specialist)	0.17	\$20,422	0.25	\$30,631
Staff Information Systems Analyst (Specialist)	0.07	\$8,169	0.10	\$12,253
Staff Information Systems Analyst (Specialist)	0.07	\$8,169	0.10	\$12,253
Senior Information Systems Analyst (Specialist)	0.08	\$9,978	0.10	\$13,304
Associate Information Systems Analyst (Specialist)	0.08	\$8,494	0.10	\$11,325
Total Re-directed IT Staff Cost by FY	1.35	\$172,479	2.0	\$248,697
New IT Staff				
Staff Information Systems Analyst (Specialist)	0.0	\$0	1.00	\$122,530
Systems Software Specialist I (Technical)	0.0	\$0	1.00	\$124,617
Systems Software Specialist I (Technical)	0.0	\$0	1.00	\$124,617



CLASSIFICATION	PY	FY 2015/16	PY	FY 2016/17
Associate Information Systems Analyst (Specialist)	0.0	\$0	1.00	\$113,249
Total New IT Staff Cost by FY	0.0	\$0	4.0	\$485,012
Program Staff				
Redirected CPUC Program Staff				
Program and Project Supervisor - PUC	0.13	\$23,126	0.20	\$34,689
C.E.A. Level C	0.03	\$6,253	0.05	\$9,379
Public Utilities Regulatory Analyst III	0.67	\$76,588	1.00	\$114,882
Redirected CPUC Program Staff Cost by FY	0.83	\$105,966	1.3	\$158,949
Total One-Time State Personnel Cost by FY	2.2	\$278,445	7.2	\$892,659
Total One-Time State Personnel Cost				\$1,171,104

Hardware

The total estimated hardware cost for the eFAST Project is \$60,000. The four servers or their equivalent are to be acquired for eFAST to support a hardware replacement for the Test platform only. The CPUC is building internal cloud delivery of virtual servers to deploy the entire Oracle stack of servers, thus removing the hardware refresh cycle for individual servers from the complexity of our environment. The CPUC has developed separate dev/test, production, and DR hardware clusters on which to deliver the virtual deployments. The 4 servers (or their equivalent) represent one of the 3 environments. The CPUC estimated future load capacity and scoped the hardware clouds to be able to extend to the load or to be able to add servers to the cluster as necessary. The Modernization effort shows how current platforms will support the Production and Development environments. Details for these costs are provided in the table below.

Table 12: Summary of One-Time Hardware Cost (Proposed)

DESCRIPTION	Count	Unit Cost	FY 2016/17
Servers for OVM – CPUC	4	\$15,000	\$60,000
Total One-Time Hardware Cost			\$60,000



Software

The total cost of the software is \$577,000. Details for these costs are provided in the table below.

Table 13: Summary of One-Time Software Costs (Proposed)

DESCRIPTION	Count	Unit Cost	FY 2016/17
Oracle BPM Suite Processor Perpetual – CPUC	4	\$28,750	\$115,000
SOA Suite for Oracle Middleware Processor Perpetual – CPUC	4	\$28,750	\$15,000
Oracle Web Tier - Processor Perpetual - CPUC	4	\$62,500	\$250,000
Oracle BPM Suite Processor Perpetual – CPUC	4	\$575	\$ 23,000
Oracle Webcenter Processor Perpetual - CPUC	4	\$600	\$ 24,000
Oracle BPM Suite Per User Perpetual Dev/Test/DR - CPUC	40	\$1,250	\$ 50,000
SOA Suite for Oracle Middleware Per User Perpetual Dev/Test/DR - CPUC	40	\$2,500	\$ 10,000
Oracle Webcenter Portal Per User Perpetual Dev/Test/DR - CPUC	40	\$28,750	\$ 115,000
Total One-Time Software Cost			\$577,000

Contract Services

The estimated cost for contract services totals \$2,193,508. Details for this cost are provided in the table below.

Table 14: Summary of One-Time Contract Services Costs (Proposed)

SERVICE	FY 2015/16	FY 2016/17	Total
Primary Solution Vendor Resources	\$0	\$983,928	\$983,928
State Project Manager Support	\$0	\$369,600	\$369,600
IV&V	\$0	\$174,240	\$174,240
Department of Technology IPOR	\$103,180	\$112,560	\$215,740
Other Contract Services:			
Procurement Support	\$200,000		\$200,000
Vendor Online Banking		\$250,000	\$250,000
FY Totals	\$303,180	\$1,890,328	
Total One-Time Contract Services Cost			\$2,193,508



Data Center

The estimated one-time cost for data center services totals \$145,000. Details for this cost are provided in the table below.

Table 15: Summary of One-Time Data Center Services Costs (Proposed)

SERVICE	Count	Unit Cost	FY 2016/17
Hardware			
Load Balancers - A10 - Gold Camp	2	\$25,000	\$50,000
Servers for OVM – Gold Camp	4	\$15,000	\$60,000
Software			
Oracle Web Tier - Processor Perpetual - Gold Camp	4	\$2,500	\$ 10,000
Storage			
SAN Storage 5 TB	1	\$25,000	\$25,000
Total One-Time Data Center Services Cost			\$145,000

Agency Facilities

The CPUC does not have the required workspace and facilities needed to house the new employees for the eFAST project and continuing project maintenance. These costs represent the locating of these employees in a separate facility including rent, telecom, furniture, utilities, storage areas, etc. Vendor contractors will be housed partially off-site at their own facilities and partially in an existing “hotel” space within the CPUC’s IT division. Please reference the bottom of the Resource Costs worksheet in the EAW for more information on how Agency Facility costs were calculated.

Table 16: Summary of One-Time Agency Facilities Costs (Proposed)

SERVICE	FY 2016/17	Total
Agency Facilities	\$201,159	\$201,159
Total One-Time Agency Facilities Cost		\$201,159

Other

Other costs include training for fifteen (15) IT staff for BPM, SOA, LINUX, and WebCenter in FY 2016/17 totaling \$45,000.

Table 17: Summary of One-Time Other Costs (Proposed)



SERVICE	FY 2016/17	Total
Training	\$45,000	\$45,000
Total One-Time Other Cost		\$45,000

Continuing Project Cost

The continuing cost for the eFAST Project has been estimated at \$1,274,171 and is comprised of costs in the following areas:

- State Personnel
- Software Maintenance and Licensing
- Telecommunications
- Contract Services
- Data Center
- Agency Facilities

State Personnel

The new IT staff will support the eFAST platform beginning in July 2017 for a total of \$485,012. The cost of these positions is detailed in the table below.

Table 18: Summary of Continuing State Personnel Cost (Proposed)

CLASSIFICATION	PY	FY 2017/18
Staff Information Systems Analyst (Specialist)	1.0	\$122,530
Systems Software Specialist I (Technical)	1.0	\$124,617
Systems Software Specialist I (Technical)	1.0	\$124,617
Associate Information Systems Analyst (Specialist)	1.0	\$113,249
Total Continuing Staffing Cost	4.0	\$485,012

Software Maintenance and Licensing

The continuing software maintenance and licensing cost begins in FY 2017/18. The total cost of the software maintenance and licensing is \$131,000. Details for these costs are provided in the table below.

Table 19: Summary of Continuing Software Maintenance and Licensing Costs (Proposed)

SOFTWARE	Count	Annual Unit Licensing Cost	FY 2017/18
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SOFTWARE	Count	Annual Unit Licensing Cost	FY 2017/18
Oracle BPM Suite Processor Perpetual – CPUC	4	\$6,500	\$26,000
SOA Suite for Oracle Middleware Processor Perpetual – CPUC	4	\$6,500	\$26,000
Oracle Webcenter Processor Perpetual - CPUC	4	\$13,750	\$55,000
Oracle BPM Suite Per User Perpetual Dev/Test/DR - CPUC	40	\$150	\$6,000
SOA Suite for Oracle Middleware Per User Perpetual Dev/Test/DR - CPUC	40	\$150	\$6,000
Oracle Webcenter Portal Per User Perpetual Dev/Test/DR - CPUC	40	\$300	\$12,000
Total Continuing Software Maintenance and Licensing Cost			\$131,000

Telecommunications

Implementation of the eFAST platform will require upgrading the system bandwidth between CPUC and the State data center. The estimated continuing cost for telecommunications is \$72,000. Details for these costs are provided in the table below.

Table 20: Summary of Continuing Telecommunications Costs (Proposed)

SERVICE	FY 2017/18
Upgrade of Bandwidth - CPUC	\$36,000
Upgrade of Bandwidth - Gold Camp	\$36,000
Total Continuing Telecommunications Cost	\$72,000

Contract Services

The estimated continuing cost for contract services is \$486,000. The Solution Development Vendor will provide application support and CPUC IT staff mentoring for transition of software support to CPUC. Details for these costs are provided in the table below.

Table 21: Summary of Continuing Contract Services Costs (Proposed)

SERVICE	FY 2017/18
Primary Solution Vendor Application Support and Mentoring	\$186,000



SERVICE	FY 2017/18
Online Payment Services Vendor	\$300,000
Total Continuing Contract Services Cost	\$486,000

Data Center

The Data Center continuing cost is estimated to be \$36,000 for this project. Details for these costs are provided in the table below.

Table 22: Summary of Continuing Data Center Costs (Proposed)

SERVICE	Count	Annual Unit Cost	FY 2016/17	FY 2017/18	Total
Load Balancers - A10 - Gold Camp	2	\$4,000	\$8,000	\$8,000	\$16,000
Oracle Web Tier - Processor Perpetual - Gold Camp	4	\$ 550	\$2,200	\$2,200	\$4,400
OVM Support 500 ea - Gold Camp	4	\$ 500	\$2,000	\$2,000	\$4,000
Linux Support (webtier) - Gold Camp	2	\$ 500	\$1,000	\$1,000	\$2,000
Rack Costs			\$4,800	\$4,800	\$ 9,600
Continuing Data Center Costs by FY			\$18,000	\$18,000	
Total Continuing Data Center Cost					\$36,000

Agency Facilities

The CPUC does not have the required workspace and facilities needed to house the new employees for the eFAST project continuing maintenance. These costs represent the locating of these employees in a separate facility including rent, telecom, utilities, storage areas, etc. Vendor contractors will be housed partially off-site at their own facilities and partially in an existing “hotel” space within the CPUC’s IT division. The continuing cost for Agency Facilities is below. Please reference the bottom of the Resource Costs worksheet in the EAW for more information on how Agency Facility costs were calculated.

Table 23: Summary of Continuing Agency Facilities Costs (Proposed)

SERVICE	FY 2017/18	Total
Agency Facilities	\$82,159	\$82,159
Total One-Time Agency Facilities Cost		\$82,159



Continuing Existing Costs

There are no continuing existing costs.

Proposed Alternative EAW

The EAW for the Proposed Alternative is shown below.

SIMM 20C, Rev. 06/2014

PROPOSED ALTERNATIVE: Best of Breed Toolset

Date Prepared: 06/01/2015

Agency/state entity: Public Utility Commission
Project: eFiling Administration Support (eFAST)

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

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	2.2	278,445	7.2	892,659	0.0	0	0.0	0	9.4	1,171,104
Hardware Purchase	0	0	0	0	0	0	0	60,000	0	0	0	0	0	60,000
Software Purchase/License	0	0	0	0	0	0	0	577,000	0	0	0	0	0	577,000
Telecommunications	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Contract Services														
Software Customization	0	0	0	0	0	0	0	983,928	0	0	0	0	0	983,928
Project Management	0	0	0	0	0	0	0	369,600	0	0	0	0	0	369,600
Project Oversight	0	0	0	0	0	103,180	0	112,560	0	0	0	0	0	215,740
IV&V Services	0	0	0	0	0	0	0	174,240	0	0	0	0	0	174,240
Other Contract Services	0	0	0	0	0	200,000	0	250,000	0	0	0	0	0	450,000
TOTAL Contract Services	0	0	0	0	0	303,180	0	1,890,328	0	0	0	0	0	2,193,508
Data Center Services	0	0	0	0	0	0	0	145,000	0	0	0	0	0	145,000
Agency Facilities	0	0	0	0	0	0	0	201,159	0	0	0	0	0	201,159
Other	0	0	0	0	0	0	0	45,000	0	0	0	0	0	45,000
Total One-time IT Costs	0.0	0	0.0	0	2.2	581,625	7.2	3,811,146	0.0	0	0.0	0	9.4	4,392,771
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	4.0	485,012	0.0	0	4.0	485,012
Hardware Lease/Maintenance	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Software Maintenance/Licenses	0	0	0	0	0	0	0	0	0	131,000	0	0	0	131,000
Telecommunications	0	0	0	0	0	0	0	0	0	72,000	0	0	0	72,000
Contract Services	0	0	0	0	0	0	0	0	0	486,000	0	0	0	486,000
Data Center Services	0	0	0	0	0	0	0	18,000	0	0	0	0	0	36,000
Agency Facilities	0	0	0	0	0	0	0	0	0	82,159	0	0	0	82,159
Other	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	18,000	4.0	1,274,171	0.0	0	4.0	1,292,171
Total Project Costs	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
Continuing Existing Costs														
Information Technology Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other IT Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing Existing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Continuing Existing Program Costs														
Program Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other Program Costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Continuing Existing Program Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Continuing Existing Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL ALTERNATIVE COSTS	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
INCREASED REVENUES		0		0		0		0		0		0		0

8.3 Alternative System Worksheet – Commercial/Modifiable Off-the-Shelf (COTS/MOTS) Application

Estimated Project Cost

The estimated project cost for Alternative 1 is \$7,449,214. The one-time cost is \$6,043,606 and the ongoing cost is \$1,405,607. A breakdown of the total estimated project cost, by state FY, is discussed on the following pages.

One-Time Cost

The one-time project cost for Alternative 1 is comprised of the following areas and discussed below:



- State Personnel
- Software
- Contract Services
- Agency Facilities
- Staffing Training and Travel

State Personnel

The total estimated state personnel cost is \$1,293,668 based on the assumption that CPUC will use a combination of new permanent positions and redirected staff throughout the project. A breakdown of state personnel cost is provided below.

Table 24: Summary of One-Time Project State Personnel Cost (Alternative 1)

CLASSIFICATION	PY	FY 2015/16	PY	FY 2016/17
IT Staff				
Re-directed IT Staff				
Data Processing Manager I	0.67	\$85,200	1.00	\$127,801
Senior Information Systems Analyst (Supervisor)	0.03	\$4,628	0.00	\$0
Data Processing Manager III	0.03	\$22,173	0.05	\$7,871
Senior Programmer Analyst (Specialist)	0.17	\$5,247	0.25	\$33,259
Staff Information Systems Analyst (Specialist)	0.17	\$20,422	0.25	\$30,633
Staff Information Systems Analyst (Specialist)	0.07	\$8,169	0.10	\$12,253
Staff Information Systems Analyst (Specialist)	0.07	\$8,169	0.10	\$12,253
Senior Information Systems Analyst (Specialist)	0.07	\$8,869	0.10	\$13,304
Associate Information Systems Analyst (Specialist)	0.07	\$7,550	0.10	\$11,325
Total Re-directed IT Staff Personnel Cost by FY	1.33	\$170,426	2.0	\$248,697
New IT Staff				
Staff Information Systems Analyst (Specialist)			1.00	\$122,530
Systems Software Specialist I (Technical)			3.00	\$373,850
Associate Information Systems Analyst (Specialist)			1.00	\$113,249
Total New IT Staff Personnel Cost by FY			5.0	\$609,629



CLASSIFICATION	PY	FY 2015/16	PY	FY 2016/17
Program Staff				
Re-directed CPUC Program Staff				
Program and Project Supervisor - PUC	0.13	\$23,126	0.20	\$34,689
C.E.A. Level C	0.03	\$6,253	0.05	\$9,379
Public Utilities Regulatory Analyst III	0.67	\$76,588	1.00	\$114,882
Redirected CPUC Program Staff Personnel Cost by FY	0.83	\$105,966	1.3	\$158,949
Total One-Time State Personnel Cost by FY	2.2	\$276,393	8.2	\$1,017,276
Total One-Time State Personnel Cost				\$1,293,668

Software

The estimated purchase cost of the software for Alternative 1 is \$2,000,000. Details for these costs are provided in the table below.

Table 25: Summary of One-Time Software Costs (Alternative 1)

DESCRIPTION	FY 2016/17
Enterprise Portal COTS/MOTS software	\$ 2,000,000
Total One-Time Software Cost	\$2,000,000

Contract Services

The estimated one-time cost for contract services totals \$2,475,960. Details for these costs are provided in the table below.

Table 26: Summary of One-Time Contract Services Costs (Alternative 1)

SERVICE	FY 2015/16	FY 2016/17
State Project Manager Support	\$0	\$369,600
IV&V	\$0	\$ 87,120
CTA IPO	\$103,180	\$112,560
Portal COTS/MOTS Vendor	\$0	\$1,301,000
Cloud Hosting Vendor	\$0	\$ 52,500
Online Payment Services Vendor	\$0	\$250,000
Other Contract Services- Procurement Support	\$200,000	\$0



SERVICE	FY 2015/16	FY 2016/17
Total by FY	\$303,180	\$2,172,780
Total One-Time Contract Services Cost		\$2,475,960

Agency Facilities

The CPUC does not have the required workspace and facilities needed to house the new employees for the eFAST project and continuing project maintenance. These costs represent the locating of these employees in a separate facility including rent, telecom, furniture, utilities, storage areas, etc. Vendor contractors will be housed partially off-site at their own facilities and partially in an existing “hotel” space within the CPUC’s IT division. Please reference the bottom of the Resource Costs worksheet in the EAW for more information on how Agency Facility costs were calculated.

Table 27: Summary of One-Time Agency Facilities Costs (Alternative 1)

SERVICE	FY 2016/17	Total
Agency Facilities	\$213,978	\$213,978
Total One-Time Agency Facilities Cost		\$213,978

Other

Other costs for Alternative 1 include COTS training and travel for IT staff in FY 2016/17 totaling \$60,000.

Table 28: Summary of One-Time Other Costs (Alternative 1)

SERVICE	FY 2016/17	Total
Training – 15 IT staff COTS/MOTS Application	\$60,000	\$60,000
Total One-Time Other Cost		\$60,000



Continuing Project Costs

The continuing costs for Alternative 1 have been estimated at \$1,405,607 and are comprised of costs in the following areas:

- State Personnel
- Software
- Contract Services
- Agency Facilities

State Personnel

Under Alternative 1, the new IT staff will support the system beginning in July 2017 for a total of \$609,629. The costs associated with these positions are detailed in the table below.

Table 29: Summary of Continuing State Personnel Cost (Alternative 1)

CLASSIFICATION	PY	FY 2017/18
Staff Information Systems Analyst (Specialist)	1.0	\$122,530
Systems Software Specialist I (Technical)	3.0	\$373,850
Associate Information Systems Analyst (Specialist)	1.0	\$113,249
Total Continuing Staffing Cost	5.0	\$609,629

Software Maintenance and Licensing

The continuing software maintenance and licensing cost begins in FY 2017/18. The total annual cost of the software maintenance and licensing is \$90,000. Details for these costs are provided in the table below.

Table 30: Summary of Continuing Software Maintenance and Licensing Costs (Alternative 1)

SOFTWARE	Annual Unit Licensing Cost	FY 2017/18
COTS/MOTS Software Licensing	\$90,000	\$90,000
Total Continuing Software Maintenance and Licensing Cost		\$90,000



Contract Services

The estimated continuing cost for Alternative 1 contract services totals \$617,000. The Details for these costs are provided in the table below.

Table 31: Summary of Continuing Contract Services Costs (Alternative 1)

SERVICE	FY 2017/18
Cloud Hosting Services	\$317,000
Online Payment Services Vendor	\$300,000
Total Continuing Contract Services Cost	\$617,000

Agency Facilities

The CPUC does not have the required workspace and facilities needed to house the new employees for the eFAST project continuing maintenance. These costs represent the locating of these employees in a separate facility including rent, telecom, utilities, storage areas, etc. Vendor contractors will be housed partially off-site at their own facilities and partially in an existing “hotel” space within the CPUC’s IT division. The continuing cost for Agency Facilities is below. Please reference the bottom of the Resource Costs worksheet in the EAW for more information on how Agency Facility costs were calculated.

Table 32: Summary of Continuing Agency Facilities Costs (Alternative 1)

SERVICE	FY 2017/18	Total
Agency Facilities	\$88,978	\$88,978
Total One-Time Agency Facilities Cost		\$88,978

Continuing Existing Costs

There are no continuing existing costs.



Alternative 1 System EAW

The Alternative 1 System EAW is shown below.

SIMM 20C, Rev. 06/2014

ALTERNATIVE #1: COTS/MOTS Application

Agency/state entity: Public Utility Commission
Project: eFiling Administration Support (eFAST)

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

Date Prepared: 06/01/2015

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	2.2	276,393	8.2	1,017,276	0.0	0	0.0	0	10.4	1,293,668
Hardware Purchase		0		0		0		0		0		0		0
Software Purchase/License		0		0		0		2,000,000		0		0		2,000,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		0		0		0
Software Customization		0		0		0		1,301,000		0		0		1,301,000
Project Management		0		0		0		369,600		0		0		369,600
Project Oversight		0		0		103,180		112,560		0		0		215,740
IV&V Services		0		0		0		87,120		0		0		87,120
Other Contract Services		0		0		200,000		302,500		0		0		502,500
TOTAL Contract Services		0		0		303,180		2,172,780		0		0		2,475,960
Data Center Services		0		0		0		0		0		0		0
Agency Facilities		0		0		0		213,978		0		0		213,978
Other		0		0		0		60,000		0		0		60,000
Total One-time IT Costs	0.0	0	0.0	0	2.2	579,573	8.2	5,464,034	0.0	0	0.0	0	10.4	6,043,606
Continuing IT Project Costs														
Staff (Salaries & Benefits)	0.0	0	0.0	0	0.0	0	0.0	0	5.0	609,629	0.0	0	5.0	609,629
Hardware Lease/Maintenance		0		0		0		0		0		0		0
Software Maintenance/Licenses		0		0		0		0		90,000		0		90,000
Telecommunications		0		0		0		0		0		0		0
Contract Services		0		0		0		0		617,000		0		617,000
Data Center Services		0		0		0		0		0		0		0
Agency Facilities		0		0		0		0		88,978		0		88,978
Other		0		0		0		0		0		0		0
Total Continuing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	5.0	1,405,607	0.0	0	5.0	1,405,607
Total Project Costs	0.0	0	0.0	0	2.2	579,573	8.2	5,464,034	5.0	1,405,607	0.0	0	15.4	7,449,214
Continuing Existing Costs														
Information Technology Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other IT Costs		0		0		0		0		0		0		0
Total Continuing Existing IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Program Staff	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Other Program Costs		0		0		0		0		0		0		0
Total Continuing Existing Program Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Continuing Existing Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
TOTAL ALTERNATIVE COSTS	0.0	0	0.0	0	2.2	579,573	8.2	5,464,034	5.0	1,405,607	0.0	0	15.4	7,449,214
INCREASED REVENUES		0		0		0		0		0		0		0



8.4 Economic Analysis Summary

The Economic Analysis Summary is presented below.

SIMM 20C, Rev. 06/2014

Agency/state entity: Public Utility Commission
Project: eFiling Administration Support (eFAST)

ECONOMIC ANALYSIS SUMMARY

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

Date Prepared: 06/01/2015

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM														
Total IT Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Program Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Existing System Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
PROPOSED ALTERNATIVE														
Best of Breed Toolset														
Total Project Costs	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
COST SAVINGS/AVOIDANCES	0.0	0	0.0	0	(2.2)	(581,625)	(7.2)	(3,829,146)	(4.0)	(1,274,171)	0.0	0	(13.4)	(5,684,942)
Increased Revenues	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Net (Cost) or Benefit	0.0	0	0.0	0	(2.2)	(581,625)	(7.2)	(3,829,146)	(4.0)	(1,274,171)	0.0	0	(13.4)	(5,684,942)
Cum. Net (Cost) or Benefit	0.0	0	0.0	0	(2.2)	(581,625)	(9.4)	(4,410,771)	(13.4)	(5,684,942)	(13.4)	(5,684,942)	(13.4)	(5,684,942)
ALTERNATIVE #1														
COTS/MOTS Application														
Total Project Costs	0.0	0	0.0	0	2.2	579,573	8.2	5,464,034	5.0	1,405,607	0.0	0	15.4	7,449,214
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	2.2	579,573	8.2	5,464,034	5.0	1,405,607	0.0	0	15.4	7,449,214
COST SAVINGS/AVOIDANCES	0.0	0	0.0	0	(2.2)	(579,573)	(8.2)	(5,464,034)	(5.0)	(1,405,607)	0.0	0	(15.4)	(7,449,214)
Increased Revenues	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Net (Cost) or Benefit	0.0	0	0.0	0	(2.2)	(579,573)	(8.2)	(5,464,034)	(5.0)	(1,405,607)	0.0	0	(15.4)	(7,449,214)
Cum. Net (Cost) or Benefit	0.0	0	0.0	0	(2.2)	(579,573)	(10.4)	(6,043,606)	(15.4)	(7,449,214)	(15.4)	(7,449,214)	(15.4)	(7,449,214)
ALTERNATIVE #2														
Total Project Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Cont. Exist. Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Total Alternative Costs	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
COST SAVINGS/AVOIDANCES	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Increased Revenues	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Net (Cost) or Benefit	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Cum. Net (Cost) or Benefit	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0

8.5 Project Funding Plan

The Project Funding Plan is presented below and on the following page.



SIMM 20C, Rev. 06/2014

PROJECT FUNDING PLAN

Agency/state entity: Public Utility Commission

All Costs to be in whole (unrounded) dollars

Date Prepared: 10/29/2015

Project: eFiling Administration Support (eFAST)

	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
RESOURCES TO BE REDIRECTED														
Staff	0.0	0	0.0	0	2.2	278,445	3.2	407,647	0.0	0	0.0	0	5.4	686,091
Funds:														
Existing System		0		0		0		0		0		0		0
Other Fund Sources		0		0		303,180		0		0		0		303,180
TOTAL REDIRECTED RESOURCES	0.0	0	0.0	0	2.2	581,625	3.2	407,647	0.0	0	0.0	0	5.4	989,271
ADDITIONAL PROJECT FUNDING NEEDED														
One-Time Project Costs	0.0	0	0.0	0	0.0	0	4.0	3,403,499	0.0	0	0.0	0	4.0	3,403,499
Continuing Project Costs	0.0	0	0.0	0	0.0	0	0.0	18,000	4.0	1,274,171	0.0	0	4.0	1,292,171
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	0.0	0	0.0	0	4.0	3,421,499	4.0	1,274,171	0.0	0	8.0	4,695,671
TOTAL PROJECT FUNDING	0.0	0	0.0	0	2.2	581,625	7.2	3,829,146	4.0	1,274,171	0.0	0	13.4	5,684,942
Difference: Funding - Costs	0.0	0	0.0	0	0	0	(0.0)	0	0.0	0	0.0	0	(0)	0
Total Estimated Cost Savings	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
FUNDING SOURCE*														
General Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Federal Fund	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Special Fund (1)	0%	0	0%	0	100%	581,625	100%	3,829,146	100%	1,274,171	100%	0	100%	5,684,942
Reimbursement	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	0%	0	0%	0	100%	581,625	100%	3,829,146	100%	1,274,171	100%	0	100%	5,684,942

*Type: If applicable, for each funding source, beginning on row 29, describe what type of funding is included, such as local assistance or grant funding, the date the funding is to become available, and the duration of the funding.

(1) Administration Program (9900100). Split among 14 different CPUC Funds.

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ADJUSTMENTS, SAVINGS AND REVENUES WORKSHEET

Agency/state entity: Public Utility Commission

Date Prepared: 10/29/2015

Project: eFiling Administration Support (eFAST)

Annual Project Adjustments	FY 2013/14		FY 2014/15		FY 2015/16		FY 2016/17		FY 2017/18		FY 2018/19		Adjustments	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-time Costs														
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	0	4.0	3,421,499	0.0	0		
(A) Annual Augmentation /(Reduction)	0.0	0	0.0	0	0.0	0	4.0	3,421,499	(4.0)	(3,421,499)	0.0	\$ -		
(B) Total One-Time Budget Actions	0.0	0	0.0	0	0.0	0	4.0	3,421,499	0.0	0	0.0	0	4.0	3,421,499
Continuing Costs														
Previous Year's Baseline	0.0	0	0.0	0	0.0	0	0.0	18,000	4.0	1,274,171				
(C) Annual Augmentation /(Reduction)	0.0	0	0.0	0	0.0	0	0.0	18,000	4.0	1,256,171	(4.0)	(1,274,171)		
(D) Total Continuing Budget Actions	0.0	0	0.0	0	0.0	0	0.0	18,000	4.0	1,274,171	0.0	0	4.0	1,292,171
Total Annual Project Budget Augmentation /(Reduction) [A + C]	0.0	0	0.0	0	0.0	0	4.0	3,439,499	0.0	(2,165,328)	(4.0)	(1,274,171)		

[A, C] Excludes Redirected Resources

Total Additional Project Funds Needed [B + D]

8.0 4,713,671

Annual Savings/Revenue Adjustments

Cost Savings	0	0.0	0	(2.2)	(\$581,625)	(7.2)	(\$3,829,146)	(4.0)	(\$1,274,171)	0.0	0.0		
Increased Program Revenues	0	0	0	0	0	0	0	0	0	0	0		



9.0 Business Functional Requirements

For the eFAST Platform project, high level business, technical and non-technical requirements were developed. These requirements may be further elaborated and refined as part of the procurement, requirements definition, and design phases of the eFAST project. Such refinement would be managed using traditional scoping controls associated with systems development lifecycles.

9.1 Requirement Organization

The eFAST Platform requirements are organized following the guidance of Institute of Electrical and Electronics Engineers standard 1233-1998, which describes the use of a hierarchy of capabilities as the most often used scheme of organization.

The eFAST Platform project uses a hierarchy of requirements where requirements are grouped by category, and further grouped by subcategory. Within each subcategory, requirements are further decomposed into business or user requirements and labeled as functional/business, technical, or non-functional requirements.

The term 'eFAST Solution' noted in the requirements refers to the holistic solution of integrated tools and systems that will provide the desired spectrum of e-Filing, Customer Service, and Workflow capabilities for the enterprise. The categories, subcategories, and functional/business requirements are technology agnostic, i.e., the requirements are not intended to dictate the use of a specific system or tool. These decisions are more appropriately made during the design phase of the SDLC. Technical requirements may be specific to a tool or system as needed.

The requirement hierarchy and terminology for the eFAST Platform program is depicted in the figure on the following page.

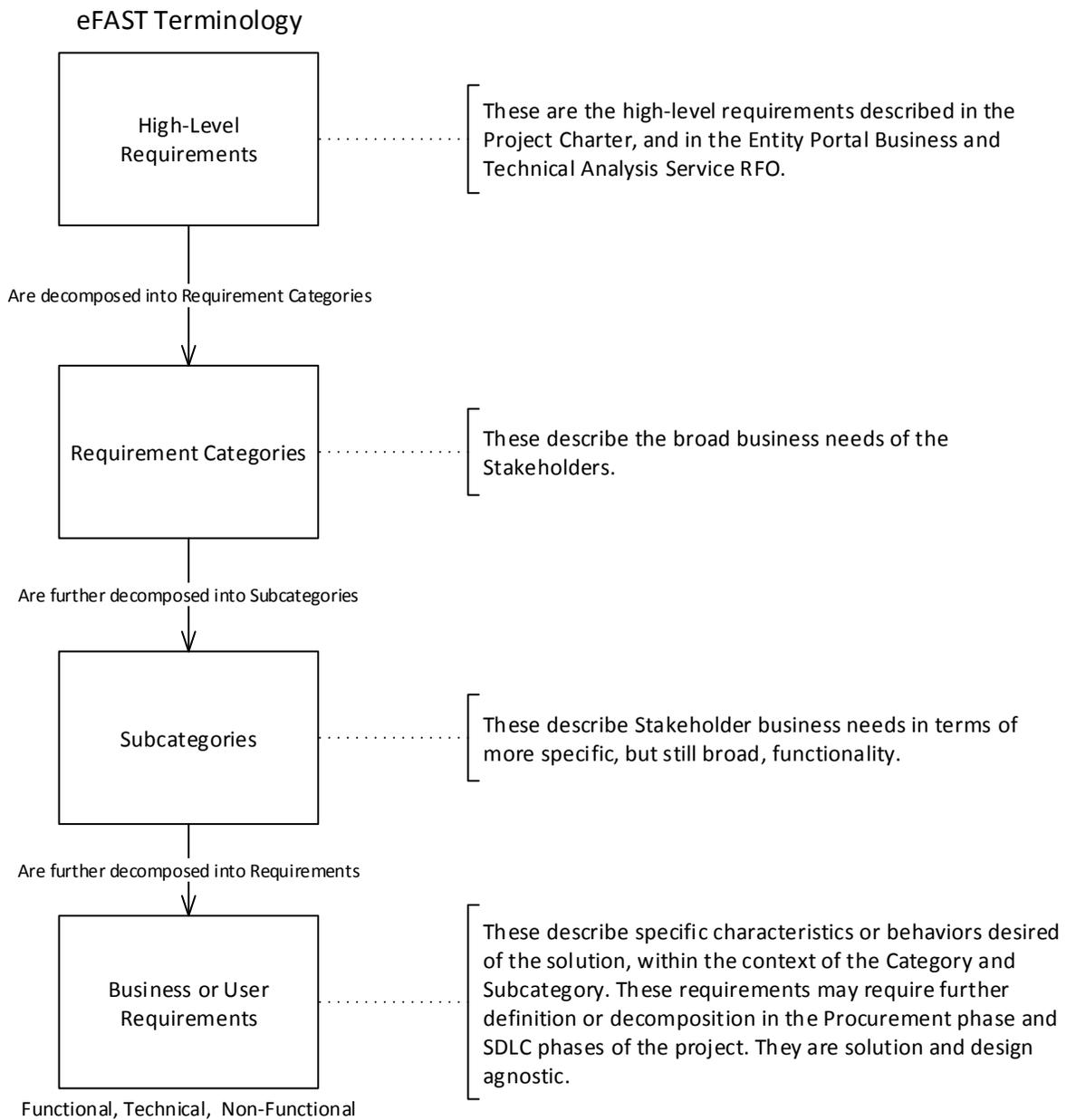
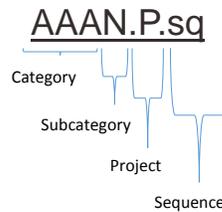


Figure 5: Hierarchy of Requirement Types and Terminology



Requirement Identification Schema

The eFAST Platform requirements have a unique requirement identifier based on the model depicted in the figure below:



AAA = the two or three character abbreviation that identifies the requirement category

N = the numerical designation of the subcategory

P = the numerical designation of the subordinate project

Sq = the two-digit sequence number within the subcategory and subordinate project

Figure 6: Requirement Identification Schema

The numerical designation for the eFAST Platform project is '1'. Thus a requirement in the Business Process Management category, Workflow Capability subcategory, and the eFAST Platform will be identified with an identifier beginning with BPM1.1 and followed by a sequential number, such as BPM1.1.01.

Requirement Categories

Requirement categories elaborate upon the high-level requirements described in the project charter and the eFAST Request for Offer (RFO) for requirements analysis and FSR services. The current eFAST Platform requirement categories are presented in the table below.

Table 33: Requirement Categories

Category Title	Category ID	Category Definition
Business Process Management	BPM	The eFAST Solution shall provide a workflow capability that includes automated routing, actions, notifications to internal and external



Category Title	Category ID	Category Definition
		users, and filing management.
Business Reporting	BR	The eFAST Solution shall provide functionality to allow for the display of business reporting.
Customer Service Management	CSM	The eFAST Solution shall provide the ability to view the history of interactions and communications with any given entity or customer. (For this purpose customers are defined as entities required by regulation to do business with the CPUC, citizen public, all other parties governed by the CPUC.)
Document Management	DM	The eFAST Solution shall provide the ability to integrate with an existing document management system. For this purpose, document management is defined as a system used to track and store documents. A document management system is usually also capable of keeping track of the different versions modified by different users (history tracking). The CPUC currently uses OpenText Content Server Version 10. There are also current web publishing standards in CPUC that should be leveraged.
Identity Management	ID	The eFAST Solution shall provide identity management functionality, and will integrate with existing CPUC identity management tools and systems. Identity management (IdM) is the task of controlling information about users on computers. Such information includes information that authenticates the identity of a user, and information that describes information and actions they are authorized to access and/or perform. It also includes the management of descriptive information about the user and how and by whom that information can be accessed and modified. Managed entities typically include users, hardware and network resources and even applications.
Information Sharing	IS	The eFAST Solution shall provide the capability to share information from the CPUC to the general public and to known users (e.g.,



Category Title	Category ID	Category Definition
		registered users with User IDs, regulated entities, etc.), and from the general public and known users to the CPUC.
Integration	INT	The eFAST Solution shall provide the ability to integrate with external data sources (interfaces), "web" based applications, and other CPUC systems and databases.
Payment of Fees and Fines	PFF	The eFAST Solution shall be capable of accepting online payments (e.g., credit card, debit card, e-check, PayPal, etc.) and posting the payments to the correct regulated entity account, as well as displaying a history of online and manual payments and payment balance(s) for the entity.
Portal Transactions	PT	The eFAST Solution requires online screens (e.g., web pages, forms) to provide data entry and validation functionality, and capture of entered data. This data is currently submitted to the CPUC via paper forms.
Solution Administration/ Capability	SA	The eFAST Solution shall provide system administration and other general configuration capabilities to enable non-programmer staff (e.g., system administrators, configuration analysts) to maintain the eFAST Solution without coding.
Standards	STN	The eFAST Solution shall comply with relevant standards.



Requirement Subcategories

Requirement subcategories further elaborate upon the requirement categories described above. The current eFAST Solution requirement subcategories are presented in the table below.

Table 34: Requirement Subcategories

Subcategory Title	Subcategory Identifier	Subcategory Definition
Business Process Management		
Workflow Capability	1	General automated workflow capability.
Filing Management	2	Enable the integrated tracking of every automated and manual action (i.e., a history of activity) related to a given submission. Each submission is considered a Filing. A Filing may have one or more workflows associated with it.
Workflow Routing	3	Determine which workflow routing process to perform based on submission transaction type. Separate workflows for each of the transaction types are required.
Workflow Actions	4	Allow for manual and automatic actions to be applied to the Filing as part of the workflow process.
Workflow Notifications	5	Alert submitters and users that action has been or needs to be taken, via the users stated preferred method of communication.
Business Reporting		
Reporting Capability	1	Allow for the display of business reporting.
Management Dashboard	2	Allow for management dashboard reporting through the configuration of custom fields that derive their values automatically from eFAST data.
Customer Service Management		
Customer Service Management Capability	1	General Customer Service Management capability.



Subcategory Title	Subcategory Identifier	Subcategory Definition
Account History	2	Self-service external user / regulated entity account management functionality that allows the account holder and delegates to view account transaction history, communication history, and payment history.
Account Management	3	Customer account management functionality that allows customer to view and manage their own account information (e.g., address, telephone, preferred method of communication, etc.) in a self-service mode, as well as allows authorized CPUC staff to view and manage customer accounts.
Communication Management	4	Functionality to track communications (emails, notices, letters, documented interactions such as phone calls and meetings, etc.) between the CPUC and external users; and for the CPUC to send communications to external user groups based on parameter-driven selection criteria.
Customer Notifications	5	Display and/or send notification to the account holder of various events (e.g., upcoming license expiration, password changes, etc.) via preferred method of communication.
Document Management		
Document Management	1	Integration with Content Server.
Identity Management		
Identity Management	1	Identity Management capabilities to support future CPUC portal applications.
Delegates	2	Allow the regulated entity's designated Portal Application Administrator to administer the access of their own users or delegates on behalf of the regulated entity.
CPUC Roles	3	Portal application specific authorization profiles (security and access roles) for CPUC users.



Subcategory Title	Subcategory Identifier	Subcategory Definition
Information Sharing		
Information Sharing	1	General Information Sharing capability.
Integration		
Integration Capability	1	General Integration capability.
Application Portal Integrations	2	Subcategory for subordinate project specific integrations.
Payment of Fees and Fines		
Application Portal Payments	1	General Payment of Fees and Fines capability.
Online Payments	2	Online Payment capability.
Manual Payments	3	Manual Payment support and reporting.
Payment Actions and Notifications	4	Actions and notifications to be taken based on payments due or received.
Portal Transactions		
Application Portal Transactions	1	Subcategory to identify subordinate project specific portal requirements not otherwise categorized.
Transaction Type	2	Identifies the types of transactions (online screens) required for subordinate projects.
Transaction Validation	3	Identifies the transaction validation requirements required for subordinate projects.
Transaction Submission	4	Identifies the transaction submission requirements for subordinate projects.
Online Help	5	Identifies the online help requirements for subordinate projects.



Subcategory Title	Subcategory Identifier	Subcategory Definition
Solution Administration/Capability		
Solution Administration	1	General, platform level solution administration capability.
Standards		
Standards	1	General, platform level solution standards requirements.



9.2 Business Functional and Technical Requirements

The business functional and technical requirements for the eFAST platform are listed in the table below.

Table 35: eFAST Requirements

Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM1.1.01	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution shall provide the capability to configure (map) a workflow of business process steps through an interface.	Functional/Business	Nice to Have	
BPM1.1.02	Business Process Management Capability (BPM)	Workflow Capability	The workflow functionality shall be able to 'route' work items (e.g., tasks, escalations/approvals), including attachments, to specific roles, specific work groups, and/or to specific systems or applications.	Functional/Business	Must Have	
BPM1.1.03	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution shall provide the ability to check the general status of a workflow step (e.g., for a single work item or task, or a group of items).	Functional/Business	Must Have	
BPM1.1.04	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution shall provide the ability for automated alerts and/or notification (internal and external) to users based on a workflow status change.	Functional/Business	Must Have	
BPM1.1.05	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution shall provide the ability to enter comments on the state of an item in a workflow.	Functional/Business	Must Have	
BPM1.1.06			Requirement intentionally deleted.			



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM1.1.07	Business Process Management Capability (BPM)	Workflow Capability	Workflow will allow the eFAST Solution to integrate with other CPUC applications.	Functional/Business	Must Have	
BPM1.1.08	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution workflow tool shall accommodate complex workflows containing multiple steps (in some cases, 30 or more) and/or multiple sub process workflows.	Functional/Business	Must Have	
BPM1.1.09	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution workflow tool shall be configurable to allow additional workflows as sub-processes within another workflow.	Functional/Business	Must Have	
BPM1.1.10	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution will provide the ability to specify additional parties to be notified when a specified workflow step is started, or exited.	Functional/Business	Must Have	
BPM1.1.11	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution shall allow configuration of a window of time or conditions during which a related workflow may be initiated (protest, supplement, withdrawal.)	Functional/Business	Must Have	
BPM1.1.12	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution shall allow files, such as Word templates or Excel spreadsheets, to be linked to any given workflow step so the analyst can easily access the template, pre-populate with data from the workflow instance, and produce the relevant artifact (letter or spreadsheet, etc.)	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM1.1.13	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution shall allow identification of a list of allowable alternate next steps for each workflow step, in addition to the next default step. Setting the next step to an earlier step in the current workflow must be an option.	Functional/Business	Must Have	
BPM1.1.14	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution shall allow specification of multiple steps; each of which must occur, but need not occur in a particular order; and will enforce that they are all complete before continuing the overall workflow.	Functional/Business	Must Have	
BPM1.1.15	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow solution shall permit definition of a workflow that consists of a list of tasks to be completed that need not be completed in a particular order.	Functional/Business	Must Have	
BPM1.1.16	Business Process Management Capability (BPM)	Workflow Capability	The eFAST Solution shall allow documents that have been flagged as requiring additional or exception processing to be assigned to one or more additional workflow steps or sub processes.	Functional/Business	Must Have	DM1.1.17
BPM1.1.17	Business Process Management Capability (BPM)	Workflow Capability	The eFAST workflow tool shall allow process steps to be specified that are to be taken by a regulated entity representative via the portal.	Functional/Business	Must Have	
BPM2.1.01	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall enable internal and external users to identify all data and attachments submitted with the Filing.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM2.1.02	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall display the type of attachment submitted, as indicated by the submitter prior to submission. For example, the submitter may indicate an attachment is a vehicle registration. The eFAST Solution shall display that the attachment is a vehicle registration.	Functional/Business	Must Have	
BPM2.1.03	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution workflow item shall include all attachments and data submitted via the online screen in the transaction submission through links, as attachments, displayed on an online screen, or other simple, easy to access method.	Functional/Business	Must Have	
BPM2.1.04	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall enable internal users to view internal decision notes entered by CPUC staff in relation to the Filing.	Functional/Business	Must Have	BPM1.1.05
BPM2.1.05	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall enable internal and external users to view decision notes entered by CPUC staff and not marked as internal only in relation to the Filing.	Functional/Business	Must Have	BPM1.1.05
BPM2.1.06	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall provide the ability for internal users to enter decision notes related to the Filing.	Functional/Business	Must Have	BPM1.1.05



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM2.1.07	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall classify Filing decision notes as internal to CPUC only (i.e., the default classification) unless an authorized CPUC staff designates the note to be viewable to the submitter (e.g., external.) Note: This can be accomplished through distinct internal and external note fields, or through an attribute of a note in a many-to-one (many notes to one Filing) relationship, or other method to be determined during design.	Functional/Business	Must Have	BPM1.1.05
BPM2.1.08	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall not allow Filing decision notes to be viewable by the general public or to regulated entities other than the submitter.	Functional/Business	Must Have	BPM1.1.05
BPM2.1.09	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution shall provide an online web screen for internal users to view Filing documents and data.	Functional/Business	Must Have	
BPM2.1.10	Business Process Management Capability (BPM)	Filing Management	The eFAST Solution provides a simple method for users to access account holder information while viewing a Filing and/or a workflow item, such as a link to the account.	Functional/Business	Must Have	
BPM2.1.11	Business Process Management Capability (BPM)		The eFAST solution shall provide CPUC staff with the ability to identify who is to be notified, both internally and externally, when a submission (Filing) has been successfully received. This notification shall be specific to Division, Branch, and Informal Submission type, and role.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BPM5.1.01	Business Process Management Capability (BPM)	Workflow Notifications	The eFAST Solution shall provide an initial reminder notification to the external user of their draft submissions (i.e., submissions which have been saved by the submitter but not yet completed and submitted) when the draft submission has been open for a period of days.	Functional/Business	Must Have	
BPM5.1.02	Business Process Management Capability (BPM)	Workflow Notifications	The eFAST Solution shall provide a second reminder notification to the external user of their open submissions (i.e., submissions which have been started by the submitter but not yet completed and submitted) when the open submission has been open for a period of days.	Functional/Business	Must Have	
BPM5.1.03	Business Process Management Capability (BPM)	Workflow Notifications	The eFAST Solution shall provide a final reminder notification to the external user of their open submissions (i.e., submissions which have been started by the submitter but not yet completed and submitted) when the open submission has been open for a period of days, and shall indicate that the submission will be expired if not completed within a period of days.	Functional/Business	Must Have	
BPM5.1.04	Business Process Management Capability (BPM)	Workflow Notifications	The eFAST Solution shall provide a text (e.g., SMS) message to external users alerting them that a new notification is available, when the user has requested this service and provided a text-enabled device number in their account contact information.	Functional/Business	Must Have	
BPM5.1.05	Business Process Management Capability (BPM)	Workflow Notifications	The eFAST solution shall allow the CPUC administrator to define what status change notifications will be posted on the web.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
BR1.1.01	Business Reporting Capability (BR)	Reporting Capability	The Solution shall provide a framework with the ability to integrate with existing and/or potential business intelligence, data warehousing and/or business analytic systems.	Technical	Must Have	
BR1.1.02	Business Reporting Capability (BR)	Reporting Capability	The eFAST Solution shall provide the ability to run reports that draw on data maintained and/or accessed by the eFAST Solution (e.g., user data, auditing, usage, et al).	Functional/Business	Must Have	
BR1.1.03			Requirement intentionally deleted.			
BR1.1.04	Business Reporting Capability (BR)	Reporting Capability	The eFAST Solution shall provide functionality for pre-defined reports, i.e., scheduled reports in a pre-determined format, time period, and data parameters.	Functional/Business	Must Have	
BR1.1.05	Business Reporting Capability (BR)	Reporting Capability	The eFAST Solution shall provide functionality for user-defined reports that are parameter driven based on user-entered selection values and requested on demand.	Functional/Business	Must Have	
CSM1.1.01	Customer Service Management (CSM)	Customer Service Management	The eFAST Solution shall have a common web interface for regulated entities to log in. All customers will access the same URL and landing page to access eFAST.	Functional/Business	Must Have	
CSM2.1.01	Customer Service Management (CSM)	Account History	The eFAST Solution shall display summary information of the account transaction, payment, and communication history.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
CSM2.1.02	Customer Service Management (CSM)	Account History	The eFAST Solution shall allow account holders (i.e., individual user / regulated entity delegates) to view their account transaction (applications, claims, other submissions, etc.) history, e.g., an online screen showing all transactions belonging to the account holder, date, status, et al.	Functional/Business	Must Have	
CSM2.1.03	Customer Service Management (CSM)	Account History	The eFAST Solution shall allow account holders (i.e., individual user / regulated entity delegates) to view their communication history, e.g., an online screen showing communications and interactions (e.g., emails, notices, alerts, documented phone calls, etc.) between the CPUC and the user / entity.	Functional/Business	Must Have	
CSM2.1.04	Customer Service Management (CSM)	Account History	The eFAST Solution shall allow account holders (i.e., individual user / regulated entity delegates) to view their payment history, e.g., an online screen showing payments sent and monies owed by or due to the account holder, account balances, etc.	Functional/Business	Must Have	
CSM2.1.05	Customer Service Management (CSM)	Account History	The eFAST Solution shall provide external user /regulated entity the ability to view information in their customer account, including monitoring and tracking the status of transactions, requests for missing documentation; payments, and correspondence.	Functional/Business	Must Have	
CSM2.1.06	Customer Service Management (CSM)	Account History	The eFAST Solution displays the current status of their submissions to the external user.	Functional/Business	Must Have	
CSM2.1.07	Customer Service Management (CSM)	Account History	The eFAST Solution displays transactions the user has saved, but not yet completed and submitted.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
CSM2.1.08	Customer Service Management (CSM)	Account History	The eFAST Solution shall allow external users to view their own and their delegated account history.	Functional/Business	Must Have	
CSM3.1.01	Customer Service Management (CSM)	Account Management	The eFAST Solution provides for individual external user accounts, i.e., accounts for an individual who is not connected to a regulated entity.	Functional/Business	Must Have	
CSM3.1.02	Customer Service Management (CSM)	Account Management	The eFAST Solution provides for user accounts to be associated to a regulated entity.	Functional/Business	Must Have	
CSM3.1.03	Customer Service Management (CSM)	Account Management	The eFAST Solution shall allow for many-to-many relationships between individual and regulated entity accounts, that is, an individual can also be connected to zero or more regulated entities and a regulated entity can be connected to one or more individuals.	Functional/Business	Must Have	
CSM3.1.04	Customer Service Management (CSM)	Account Management	The eFAST Solution shall permit authorized internal (CPUC) users to change the account status of external user / entity accounts (e.g. active, inactive, etc.) Internal users will be defined during Requirements Definition and Design phases of the project.	Functional/Business	Must Have	
CSM3.1.05	Customer Service Management (CSM)	Account Management	The eFAST Solution provides the ability for an external user (individual / entity delegate) to view and update contact information (e.g. address, phone number, preferred method of communication, etc.)	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
CSM3.1.06	Customer Service Management (CSM)	Account Management	The eFAST Solution displays designated user account information (e.g., name, company address, and other items to be defined during Requirements Definition and Design) to any user (e.g., general public, other Carriers, etc.)	Functional/Business	Must Have	
CSM3.1.07	Customer Service Management (CSM)	Account Management	The eFAST Solution displays account holder information (e.g., name, home address, email, and other items to be defined during Requirements Definition and Design) for the account holder logged on, only to the account holder and internal CPUC users.	Functional/Business	Must Have	
CSM3.1.08	Customer Service Management (CSM)	Account Management	The eFAST system will permit CPUC staff to enter and maintain customer (registered user) account information, which will include contact information, regulated entities to which the user may be associated, organization type, utility class (A, B, C, D), and specific role of customer.	Functional/Business	Must Have	
CSM4	Customer Service Management (CSM)	Communication Management	The eFAST Solution shall provide functionality to track communications (emails, notices, letters, documented interactions such as phone calls and meetings, etc.) between the CPUC and external users; and for the CPUC to send communications to external user groups based on parameter-driven selection criteria.	Functional/Business	Must Have	
CSM4.1.01	Customer Service Management (CSM)	Communication Management	The eFAST Solution shall provide the ability to process and route customer comments, inquiries, complaints, etc. through the web interface from registered user or anonymous users.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
CSM4.1.02	Customer Service Management (CSM)	Communication Management	The eFAST Solution shall provide the ability to prevent the publishing of information designated as confidential by the CPUC to the public. Confidential information may be viewed by authorized CPUC staff and the submitter only.	Functional/Business	Must Have	
CSM4.1.03	Customer Service Management (CSM)	Communication Management	The eFAST Solution provides the ability for all account communications to be accessed and viewed by the account holder, once logged in to their account and without having to navigate away from the online screen with their account information. For example, the account holder may be presented with a summary list of communications with links that allow the account holder to select and view specific communications.	Functional/Business	Must Have	
CSM4.1.04	Customer Service Management (CSM)	Communication Management	The eFAST Solution shall provide the ability for external users to view and respond to public notices and protests in a public forum monitored by CPUC staff.	Functional/Business	Nice to Have	
CSM4.1.05	Customer Service Management (CSM)	Communication Management	The eFAST Solution shall provide the ability for CPUC staff to select external group users based on customer type (e.g., Entity Type, Carrier Type, Individual User, etc.) and distribute mass emails through the eFAST Solution.	Functional/Business	Must Have	
CSM5.1.01	Customer Service Management (CSM)	Customer Notifications	The eFAST Solution shall provide functionality to support both the manual and automated (e.g., output from automated workflow) posting of responses and other notices from the CPUC to the customer(s).	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
CSM5.1.02	Customer Service Management (CSM)	Customer Notifications	The posting of responses and notices from the CPUC to customer(s) shall allow for the response or notice to be limited to the customer who submitted the document/data.	Functional/Business	Must Have	
CSM5.1.03	Customer Service Management (CSM)	Customer Notifications	The eFAST Solution shall generate and distribute automated confirmation of receipt, including a unique Filing or Submission identifier, and acceptance of filed material to the submitter.	Functional/Business	Must Have	
CSM5.1.04	Customer Service Management (CSM)	Customer Notifications	The eFAST Solution notifies the account holder of workflow alerts and notices related to their submissions.	Functional/Business	Must Have	
DM1.1.01	Document Management (DM)	Document Management	<p>The eFAST Solution shall allow for submission and storage of documents and data to the CPUC via an eFAST Solution designated user interface.</p> <p>Methods of intake (submission) include through a web portal as attachments, via FTP, or entered as a web form, among other acceptable methods to be agreed upon during design.</p>	Functional/Business	Must Have	
DM1.1.02	Document Management (DM)	Document Management	The eFAST Solution shall provide the capability for authorized CPUC staff to access, track, intake, and store documents and data submitted by customers.	Functional/Business	Must Have	
DM1.1.03	Document Management (DM)	Document Management	The eFAST Solution shall provide a secure method for delivering documents electronically (e.g., TLS) to and from the CPUC.	Technical	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
DM1.1.04	Document Management (DM)	Document Management	The eFAST Solution shall provide the capability of sending and retrieving documents in commonly accepted file formats (e.g., .pdf, .docx, .xlsx, .xml, .pptx, .vsd, .txt, .jpg, .gif, et al) and shall be prevented from receiving and sending high risk objects, such as executables.	Functional/Business	Must Have	
DM1.1.05	Document Management (DM)	Document Management	The eFAST Solution shall provide the ability for authorized submitters or staff to mark as confidential, retracted, replaced or obsolete, the submitted documents.	Functional/Business	Must Have	
DM1.1.06	Document Management (DM)	Document Management	The eFAST Solution shall provide the ability to view the life cycle of documents from initial creation time, publication and archive.	Functional/Business	Must Have	
DM1.1.07	Document Management (DM)	Document Management	The eFAST Solution integrates with Content Server to store documents in such a way that they can be easily organized and discovered by the submitter (e.g., submitter ID, name), such as through a Regulated Entity view.	Functional/Business	Must Have	
DM1.1.08	Document Management (DM)	Document Management	The eFAST Solution shall provide storage of submitted data and documents to meet privacy and security needs. Currently, confidential information is encrypted and stored in a secure area of Content Server.	Functional/Business	Must Have	
DM1.1.09	Document Management (DM)	Document Management	The eFAST Solution shall be capable of storing document and data retention times, by document type and Filing data type. Retention times may be different by future application (e.g., TCP, IS, PCMS, etc.)	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
DM1.1.10	Document Management (DM)	Document Management	The eFAST solution shall provide the ability to store all commonly accepted file formats that contain text in a format that can be searched by content.	Functional/Business	Must Have	
DM1.1.11	Document Management (DM)	Document Management	The eFAST solution shall provide the ability to list all confidential files within a specified time period of becoming publicly accessible.	Functional/Business	Must Have	
DM1.1.12	Document Management (DM)	Document Management	The eFAST solution shall permit the customer or CPUC analyst attaching files to a submission to override the default confidentiality term	Functional/Business	Must Have	
DM1.1.13	Document Management (DM)	Document Management	The eFAST system shall permit Applications and attached files to be identified as confidential and these files will be stored as encrypted files.	Functional/Business	Must Have	
DM1.1.14	Document Management (DM)	Document Management	The eFAST solution shall provide the ability for authorized customer or staff to retrieve any non-confidential file attached to any Filing or Submission they are authorized to read.	Functional/Business	Must Have	
DM1.1.15	Document Management (DM)	Document Management	The eFAST solution shall provide the ability for customers or staff to retrieve any confidential file attached to any Filing or Submission they are authorized to read, within the limits of the customer's or staff's security profile.	Functional/Business	Must Have	
DM1.1.16	Document Management (DM)	Document Management	The eFAST Solution shall permit a non-technical CPUC administrator to identify the types of documents that are required to be attached to each Filing type, permitted to be attached to each Filing type, and the default confidential indicator by document type and Filing type (i.e., whether the document defaults to confidential or not.)	Functional/Business	Must Have	DM1.1.05



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
DM1.1.17	Document Management (DM)	Document Management	The eFAST Solution shall allow CPUC staff to flag any documents associated with a Filing as requiring additional or exception processing.	Functional/Business	Must Have	BPM1.1.16
DM1.1.18	Document Management (DM)	Document Management	The eFAST Solution shall allow for entry and capture of document (filing attachments) attributes or metadata that will be stored in the CPUC document management system with which eFAST is integrated. Attributes will be defined during specific subordinate application projects, and can include items such as Effective Date, End Date, Name, Confidentiality Indicator, Keywords, et al. Attributes shall be configurable by document type as well as applicable to all document types. For example, Confidentiality Indicator may apply to all document types whereas Effective Date may apply only to selected document types.	Functional/Business	Must Have	
ID1.1.01	Identity Management (ID)	Identity Management	The eFAST Solution shall be capable of integrating with the CPUC identity management system.	Technical	Must Have	
ID1.1.02	Identity Management (ID)	Identity Management	The eFAST Solution shall provide for user authentication and authorization based on their login ID and password.	Functional/Business	Must Have	
ID1.1.03	Identity Management (ID)	Identity Management	Once a user has been authenticated, the eFAST Solution shall grant access to specific privileges, functions and applications based on the user's authorization profile (role).	Functional/Business	Must Have	
ID1.1.04	Identity Management (ID)	Identity Management	The eFAST Solution shall provide the ability to capture, validate and store authorizing identification (electronic signature) allowing the filing to be deemed "official". This would eliminate the need for a filed paper document with a wet signature.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
ID1.1.05	Identity Management (ID)	Identity Management	The eFAST Solution shall provide the ability for entity administrators to administer their own group of users.	Functional/Business	Must Have	
ID2.1.01	Identity Management (ID)	Delegates	The eFAST Solution Portal Delegate and Portal Application Administrator roles shall be limited to transactions for the specific regulated entity only.	Functional/Business	Must Have	
ID2.1.02	Identity Management (ID)	Delegates	The eFAST Solution shall include a Delegate Submitter role that allows, on behalf of the specific regulated entity, the submission, modification, and/or withdrawal of transactions.	Functional/Business	Must Have	
ID2.1.03	Identity Management (ID)	Delegates	The eFAST Solution shall include a Delegate Viewer role that allows, on behalf of the specific regulated entity, viewing only of transactions, payments and notices.	Functional/Business	Must Have	
ID2.1.04	Identity Management (ID)	Delegates	The eFAST Solution shall include a Portal Application Administrator role that allows, on behalf of the specific regulated entity <ul style="list-style-type: none"> - the addition and removal of authorized delegates - assignment of login IDs - password management/reset - assignment of Submitter, Viewer, and/or Application Administrator roles (authorization profiles) 	Functional/Business	Must Have	
INT1.1.01			Requirement intentionally deleted.			
INT1.1.02	Integration (INT)	Integration Capability	The eFAST Solution shall provide the ability to integrate with CPUC Oracle applications such as TMIS, PAL, UCS, UFS, and TUFFS, based on CPUC access methods and restrictions.	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
INT1.1.03	Integration (INT)	Integration Capability	The eFAST solution user interface and any legacy system interfaces should appear as a single, homogeneous application.	Technical	Must Have	
INT1.1.04	Integration (INT)	Integration Capability	The eFAST Solution shall provide the ability to load data entered by users via online screens (e.g., web pages/forms) into external target databases through web services, APIs, custom interfaces or other integration method.	Technical	Must Have	
INT1.1.05	Integration (INT)	Integration Capability	The eFAST Solution shall provide the ability to integrate with the CPUC's document management system. The CPUC currently uses OpenText Content Server version 10.	Technical	Must Have	
INT1.1.06	Integration (INT)	Integration Capability	The eFAST Solution shall be able to integrate with an external module(s) (e.g., a bank API) that supports payment functionality (e.g., credit card, debit card, e-check, PayPal, etc.)	Technical	Must Have	
IS1.1.01	Information Sharing (IS)	Information Sharing	The eFAST Solution shall allow an external user or group to review notices from the CPUC through the designated user interface.	Functional/Business	Must Have	
IS1.1.02	Information Sharing (IS)	Information Sharing	The eFAST Solution shall provide the ability for data access to be grouped by division, departments and by external entities.	Technical	Must Have	
IS1.1.03	Information Sharing (IS)	Information Sharing	The eFAST Solution shall provide the ability for multiple users to work on the same data sets using standard database locking rules.	Technical	Must Have	
IS1.1.04			Requirement intentionally deleted.			



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
PT1.1.01	Portal Transactions (PT)	Application Portal Transactions	Forms that may be completed on the eFAST Portal need also to be compatible with mechanisms customers can develop to automatically populate those forms and reports	Functional/Business	Must Have	
PT1.1.02	Portal Transactions (PT)	Application Portal Transactions	The eFAST Solution shall assign a date and time received by the system to each form and file submitted.	Functional/Business	Must Have	
PT1.1.03	Portal Transactions (PT)	Application Portal Transactions	The eFAST Solution shall allow portal transactions (Filings, Informal Submissions, etc.) other than online payments to be modified, withdrawn and/or resubmitted by the regulated entity, according to business rules.	Functional/Business	Must Have	
PT1.1.04	Portal Transactions (PT)	Application Portal Transactions	The eFAST Solution shall allow the submitter, including authorized delegates, and authorized CPUC staff to attach multiple documents to a transaction (e.g., Filing, Submission, etc.), both when the transaction is created and when it is being processed, until it is completed.	Functional/Business	Must Have	PT1.1.03, ID2.1.02
PT1.1.05	Portal Transactions (PT)	Application Portal Transactions	The eFAST Solution shall allow customers to search for and track their Filings and other Submissions online by the unique identifier the system assigned to it.	Functional/Business	Must Have	CSM5.1.03
PT2.1.01	Portal Transactions (PT)	Transaction Types	The eFAST Solution shall require the submitter to select the type of transaction (e.g., Filing, Submission, Complaint, etc.), from a list of transaction types permissible for the submitter role (e.g., type of regulated entity, general public customer, etc.)	Functional/Business	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
SA1.1.01	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability for an administrator to manage the application-level state of, and configure the eFAST Solution, when possible, via a user interface, without requiring programming or coding.	Technical	Must Have	
SA1.1.02	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall be flexible to accommodate business rule changes, when possible, without the use of programming or coding, by non-programmer system administrator or configuration analysts.	Technical	Must Have	
SA1.1.03	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall be scalable to accommodate increased usage without performance or security degradation, including the ability to be deployed across multiple servers either through clustering or by use of distributed load balancing.	Non-Functional	Must Have	
SA1.1.04	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to be maintained by a system administrator without the need for vendor input.	Non-Functional	Must Have	
SA1.1.05	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide contextual online help at the screen (web page) and field levels.	Technical	Must Have	
SA1.1.06	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the capacity to allow for concurrent access for all users without affecting system performance.	Non-Functional	Must Have	
SA1.1.07	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to provide audit trails of user events over a specified period of time.	Technical	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
SA1.1.08	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to track who is logged into which eFAST application within the eFAST Solution at any given time.	Technical	Must Have	
SA1.1.09	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability for a system administrator role to manage user access (i.e., ability to change other users' access) to be defined based on work role and system privileges.	Technical	Must Have	
SA1.1.10	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to encrypt passwords during transmission.	Technical	Must Have	
SA1.1.11	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide complete, up-to-date, and detailed instructions and documentation for system administrators and configuration analysts; including instructions on any custom developed functionality. The eFAST Solution shall provide the capability for system administrators and configuration analysts to annotate such documentation with internal notes.	Non-Functional	Must Have	
SA1.1.12			Requirement intentionally deleted.			
SA1.1.13	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide external-only (e.g., constituents and general public) access through the internet without requiring VPN connectivity.	Technical	Must Have	
SA1.1.14	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to centralize the creation of style sheets or output templates (usually HTML and XML) that are automatically applied to new and existing content for standardization purposes.	Technical	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
SA1.1.15	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall provide the ability to change text in designated areas on eFAST web pages without the need for programmer intervention.	Technical	Must Have	
SA1.1.16	Solution Administration/ Capability (SA)	Solution Administration	The eFAST solution will provide CPUC staff with the ability to maintain the list of transaction (Filing, Submission, etc.) types allowable by customer type.	Technical	Must Have	PT2.1.01, SA1.1.02, SA1.1.04
SA1.1.17	Solution Administration/ Capability (SA)	Solution Administration	The eFAST Solution shall allow the CPUC system administrator(s) to present allowable function choices on the portal GUI to eFAST portal users in such a way as to have a manageable number of choices. For example, a hierarchy of menu items in a given menu, or links to like functions.	Technical	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
STN1.1.01	Standards (STN)	Standards	The eFAST Solution shall comply with the Americans with Disabilities Act (ADA), Section 508 of the Federal Rehabilitation Act (http://www.section508.gov/Section-508-Of-The-Rehabilitation-Act) and with California Government Code Section 11135: "Accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Sec 794d), and regulations implementing that act as set forth in Part 1194 of Title 36 of the Federal Code of Regulations." The ADA ensures equal opportunity for persons with disabilities in State and local government services and public accommodations, among others. Section 508 requires the federal government to ensure that the electronic and information technology that it develops, procures, maintains, or uses is accessible to persons with disabilities. California Government Code Section 11135 adopts the provisions of Section 508 for the State of California.	Non-Functional	Must Have	STN001.006
STN1.1.02	Standards (STN)	Standards	The eFAST Solution shall meet the CPUC standards for external-facing compatible web browsers.	Non-Functional	Must Have	STN001.005
STN1.1.03			Requirement intentionally deleted.			
STN1.1.04	Standards (STN)	Standards	The eFAST Solution shall utilize the State of CA website user interface standards to provide a simple and intuitive user interface consistent with other State of CA websites and with the California Department of Rehabilitation's Web Content Accessibility Guidelines (http://www.rehab.cahwnet.gov/webaccessibility/default.htm).	Non-Functional	Must Have	



Req ID	Category	Sub-Category	Description	Requirement Type	Priority	Related Requirements
STN1.1.05	Standards (STN)	Standards	The eFAST Solution shall meet CPUC standards for internal (i.e., desktop, laptop) web browsers.	Non-Functional	Must Have	STN001.002
STN1.1.06	Standards (STN)	Standards	The eFAST Solution shall comply with appropriate state of CA and federal compliance statutes and requirements (e.g., State Identity, Credential, and Access Management (SICAM), Identity and Access Management (IdAM).)	Non-Functional	Must Have	STN001.001
STN1.1.07	Standards (STN)	Standards	The eFAST solution CPUC web site shall comply with CPUC browser and device support policies.	Non-Functional	Must Have	



9.3 Requirements Related to Training and Staffing

As noted in Section 5.1.11, comprehensive training will be provided to the following user groups:

- CPUC business staff who will use feature of the new platform, such as tasks lists or on-demand reporting and management dashboards.
- CPUC technical staff who will maintain and support the system.
- No training will be required for regulated entities.

Training shall be provided to CPUC business and technical staff by the primary solution vendor, and shall include:

- Usage of the platform to accomplish business tasks such as accessing task lists, completing eFAST tasks (workflow tasks), on demand reporting, usage of management dashboards, and others.
- Maintenance and enhancement of the platform using the best of breed toolset.
- Development of online help tools to provide 'just in time' training and process information to CPUC staff.



Appendix A – S1BA



Stage 1 Business Analysis

General Information

Agency or State Entity Name:

Public Utilities Commission

Organization Code:

8660

Name of Proposal:

eFiling Administration Support (eFAST)

Proposed Start Date:

July, 2015

Department of Technology Project Number:

8660-080

Submittal Information

Submission Date:

10/10/2014

Contact First Name:

James

Contact Last Name:

Tang

Contact email:

jgt@cpuc.ca.gov

Contact Phone:

(415) 703-2259

Business Sponsor and Key Stakeholders

Executive Sponsors

Title	First Name	Last Name	Business Program Area
Deputy Executive Director	Michelle	Cooke	Administrative Services
Chief Information Officer (CIO)	Jesse	Mann	Administrative Services, Information Technology Services

Business Owners

Title	First Name	Last Name	Business Program Area
Deputy Executive Director	Michelle	Cooke	Administrative Services
Program Analyst	Daniel	Song	Division of Water and Audits
Program Supervisor	Charles	Christiansen	Communications Division
Program Analyst	Nick	Castillo	Energy Division
Program Manager	Jonathan	Lakritz	Communications Division
Program Manager	Liza	Tano	Safety and Enforcement Division, Transportation Enforcement

Key Stakeholders



Title	First Name	Last Name	Business Program Area/Group	External
CIO	Jesse	Mann	Administrative Services, Information Technology Services	<input type="checkbox"/>

Business Analysis

1.1 Business Drivers

- Financial Benefit:
- Increased Revenues
 - Cost Savings
 - Cost Avoidance
- Mandate(s):
- State
 - Federal
- Improvement:
- Better services to citizens
 - Efficiencies to program operations
 - Technology refresh

1.2 Statutes or Legislation

- Statutes or Legislation:
- New statutes or potential legislation Not Applicable
 - Changes to existing legislation

Bill Number: AB 1182, AB 2408

Legal Code: AB 1182: Chapter 2, Section 322.5

Additional Information: AB 1182 requires in the interest of the state's economy that businesses be allowed to interact with the Commission (CPUC) in the most efficient manner, such as supplying information to the Commission via the internet, helping to decrease the costs of regulation by reducing the need to reproduce such information on paper. AB 1182 recommends the Commission propose a plan for the electronic submission of Advice Letters (AKA Informal Submissions) if deemed feasible. AB 2408 offers significant fiscal benefits by allowing the OCIO to consolidate contracts and services, and guide smarter administration of information technology (IT) resources across agencies. eFAST consolidates disparate business needs into a single architectural platform. This supports one of AB 2408's goals of consolidation of services for smarter administration of IT.

1.3 Program Background and Context

The CPUC's Administration Services Division (ASD), Information Technology (IT) Branch is responsible for providing technology support to all CPUC divisions and staff. The IT Branch has 47 staff reporting to the Chief Information Officer (CIO), performing these functions: Enterprise Architecture Section (administration of website, servers, network), Client Solutions Section (IT Service Desk), Enterprise Project management Office, Resource Management Section (operations, asset, GIS, AV/Communications), and Enterprise Applications (Oracle, application development).

The CPUC 's information technology (IT) environment is silo'd based on the differences between the multiple business programs' needs which over time have been dealt with separately. This approach has led to the business programs reliance on postal mail and manual data entry, and to requiring more specialized, vertical IT skills for support.

Additionally, the CPUC IT infrastructure has not kept pace with the state's IT Strategic Goals regarding enterprise architecture.



1.4 Business Problem or Opportunity Summary

The CPUC proposes a standard, enterprise-wide platform for electronic filing of documents and data. The California Department of Technology (CalTech) has instructed the CPUC to develop this standard platform before designing and building any new E-Filing applications. CalTech has also encouraged the CPUC to explore the feasibility of migrating its existing, production E-Filing applications onto this standard platform.

eFast is the portal that will be the foundation for allowing entities to commonly interact with the CPUC which in turn is the foundation for Informal Submissions (Advice Letters and other informal submissions), Transportation Carrier Portal, and Program Claims Management System and any other future need for interaction by entities with the CPUC.

Impact to Business - Currently, the business side of CPUC receives large volumes of postal mail that requires processing, data entry and routing. eFAST would establish a platform that eliminates most of this effort so the business analysts can spend more time on core skills such as regulatory oversight, safety and support.

Business participation - the eFAST project will follow a standard CPUC methodology of including business Subject Matter Experts (SMEs) in requirements, design and test script reviews. This helps establish ownership well before training and system test participation occurs later in the project. The CPUC has found that such a strong, inclusive approach dramatically reduces the effort needed for full-on organizational change initiatives and increases the probability of solution embracement.

Impact to IT - The CPUC has a tradition of deploying silo'd automation solutions that, in turn, require specialized skills and result in slow ticket turn-around times. eFAST will reduce the technical silo solutions, consolidate the skill sets needed and improve ticket response times.

In summary, there are five reasons why the eFAST program is needed at CPUC. eFAST will:

1. satisfy CTA's recommendation for a consolidated architecture
2. allow CPUC to comply with legislative mandates
3. establish a foundation for many CPUC business efficiency improvements (and cost savings)
4. allow IT to reduce needed skills sets (cost savings, improve ticket response times, centralize data security and provide single sign-on)
5. Improve user experiences through quicker turn-around times, easier interfaces (e.g. no more postal letters), automated workflow control and better transparency (e.g. through notifications of status).

Below are four conditional approval responses from CalTech regarding four FY 13/14 S1BA proposals. This S1BA is meant to satisfy the recommendations of CalTech.

A. IS - Advice Letters and Informal Submission eFiling Proposal

"Approved with conditions. The Department of Technology supports the proposal pending the CPUC leverage the existing E-Filing System and study the feasibility of consolidating Advice Letters and formal E-Filing applications into a single centralized solution."

Problem - Efficiencies to program operations. Staff spends a lot of time processing any informal submission type (not just Advice Letters). A consolidated system should be able to impact other non-Advice Letter submissions the same way, on average.

B. PC - Program Claims Management System (PCMS) proposal

"Approved with conditions. The Department of Technology recommends conditional approval subject to the CPUC studying the feasibility of a single centralized system for claims processing, program tracking, and reporting systems (TUFFS, PCMAS, etc.)."

Problem - A consolidated system should be able to achieve the same goals of the PCMS proposal. Namely, process



improvement and resource savings metrics should still be achieved.

Efficiencies to program operations:

1. The Communications Staff spends a large portion of their time performing clerical work in the claims process instead of analytical work.
2. The processing of each CHCF A and CHCF B claim requires approximately 45 to 75 minutes of Communications Division analyst time.
3. The processing of each CASF (Grants) claim requires approximately 1620 minutes of Communications Division analyst time.
4. The processing of each CASF (Consortia) claim requires approximately 450 minutes of Communications Division analyst time.
5. The processing of each CTF claim requires approximately 80 minutes of Communications Division analyst time.
6. The processing of each DDTP claim requires approximately 60 minutes of Communications Division analyst time.
7. The processing of each LifeLine claim requires approximately 90 minutes of Communications Division analyst time.

C. TC - Transportation Carrier Portal (TCP) proposal

"Approved with conditions. The Department of Technology supports the proposal pending the CPUC leverage the existing eFiling System and study the feasibility of consolidating Advice Letters and eFiling applications into a single centralized solution. Pursuant to SAM 4819.36, CPUC is subject to oversight requirements as determined by the complexity and reporting requirements of the project."

Problem - A consolidated system should be able to achieve the same goals of the TCP proposal. Namely, process improvement and resource savings metrics should still be achieved.

1. Efficiencies to program operations. Transportation Enforcement Branch (TEB) License Section receives a monthly average of 397 applications, but it can only process a monthly average of 273 applications with existing staff and existing manual processes.
2. Better service to citizens. TEB's License Section has a large backlog of unprocessed applications, which results in increasing elapsed processing time, from application filing to approval.

D. TU - Telecommunications and User Fees Filing System (TUFFS) Enhancements

"Approved with conditions. The Department of Technology recommends conditional approval subject to the CPUC studying the feasibility of a single centralized system for claims processing, program tracking, and reporting systems (TUFFS, PCMS, etc.)."

Problem - A consolidated system should be able to centralize administration of access and authentication of TUFFS.

1. Efficiencies to IT administration operations.

Also, this proposal will address appropriate security and privacy requirements in the next phase.

1.5 Business Problems or Opportunities and Objectives Table

ID Problems and Opportunities

- | | |
|---|---|
| 1 | Staff spends a lot of time to process any informal submission type (including Advice Letters). A consolidated system should be able to impact other non-Advice Letter submissions the same way, on average. |
|---|---|

The Communications Staff spends a large portion of their time performing clerical work in the claims process instead of analytical work.

ID Objective

--	--



1.1-IS Reduce the amount of staff time devoted to intake and processing of Informal Submissions by 60% within 6 months of project completion. Start with an Advice Letter metric, then apply to other informal submission types.

Metric	Baseline	Target	Measurement Method
Personnel Years (PY's) allocated to processing Advice Letter claims	7.5 PYs	3 PYs	Time Study

ID Objective

1.2-... Reduce the amount of staff time devoted to clerical work by 30% while increasing accuracy within 6 months of project completion.

Metric	Baseline	Target	Measurement Method
Personal Years (PY's) allocated to processing claims	5.49 PY's	3.95 PY's	Reduce staff by one third but still process the same amount of claims

ID Problems and Opportunities

2-PC Efficiencies to program operations: The processing of each CHCF A and CHCF B claim requires approximately 45 to 75 minutes of Communications Division analyst time.

ID Objective

2.1 Reduce manual and clerical workload of CHCF A and CHCF B claim and voucher by 30% while improving accuracy within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average time to process a CHCF A and CHCF B claim	45 to 75 minutes	30 to 45 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

3-PC Efficiencies to program operations: The processing of each CASF (Grants) claim requires approximately 1620 minutes of Communications Division analyst time.

ID Objective

3.1 Reduce manual and clerical workload of CASF (Grants) claim and voucher processing by 20% while increasing accuracy within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average time to process a CASF (Grants) claim	1620 minutes	1320 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

4-PC Efficiencies to program operations: The processing of each CASF (Consortia) claim requires approximately 450 minutes of Communications Division analyst time.

ID Objective

4.1 Reduce manual and clerical workload of CASF (Consortia) claim and voucher processing by 40% while increasing accuracy within 1 year of project completion.



Metric	Baseline	Target	Measurement Method
Average time to process a CASF (Grants) claim	450 minutes	270 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

5-PC Efficiencies to program operations: The processing of each CTF claim requires approximately 80 minutes of Communications Division analyst time.

ID Objective

5.1 Reduce manual and clerical workload of CTF claim and voucher processing by 50% while increasing accuracy within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average time to process a CTF claim	80 minutes	40 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

6-PC Efficiencies to program operations: The processing of each DDTP claim requires approximately 60 minutes of Communications Division analyst time.

ID Objective

6.1 Reduce manual and clerical workload of DDTP claim and voucher processing by 50% while increasing accuracy within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average time to process a DDTP claim	60 minutes	30 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

7-PC Efficiencies to program operations: The processing of each LifeLine claim requires approximately 90 minutes of Communications Division analyst time.

ID Objective

7.1 Reduce manual and clerical workload of LifeLine claim and voucher processing by 30% while increasing accuracy within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average time to process a LifeLine claim	90 minutes	30 minutes	Time trials for average time to process this type of claim

ID Problems and Opportunities

8-TC Efficiencies to program operations. TEB's License Section receives a monthly average of 397 applications, but it can only process a monthly average of 273 applications with existing staff and existing manual processes.

ID Objective

8.1 Reduce the average, per-application, intake workload for TEB staff by 25% within 1 year of project completion.



Note: Not all transportation carriers will file electronically, so some manual intake processing will still be required.

Metric	Baseline	Target	Measurement Method
Average application intake processing time	6 hours	4.5 hours	Time Study

ID Objective

8.2 Reduce the equipment update processing workload for TEB staff by 75% within 1 year of project completion.

Note: Not all transportation carriers will file electronically, so some manual intake processing will still be required.

Metric	Baseline	Target	Measurement Method
Equipment update processing workload in Full-Time Equivalents (FTEs)	0.94 FTEs	0.24 FTEs	Time Study

ID Problems and Opportunities

9-TC Better service to citizens. TEB's License Section has a large backlog of unprocessed applications, which results in increasing elapsed processing time, from application filing to approval.

ID Objective

9.1 Reduce the elapsed processing time, from application filing to approval, by 60% for passenger carriers with seating capacity of 10 or less within 1 year of project completion.

Metric	Baseline	Target	Measurement Method
Average number of days elapsed between receiving and completing the application	5 weeks	2 weeks	Calculate average number of elapsed days to process an application, using 3 months of actual application data

ID Objective

9.2 Reduce the elapsed processing time, from application filing to approval, by 42% for passenger carriers with seating capacity of more than 10 within 1 year of project completion.

Note: Processing time includes a 60-day lag for California Highway Patrol (CHP) vehicle safety inspection.

Metric	Baseline	Target	Measurement Method
Average number of days elapsed between receiving and completing the application	12 weeks	7 weeks	Calculate average number of elapsed days to process an application, using 3 months of actual application data

ID Problems and Opportunities

10 Efficiencies to IT program operations: multiple silo'd applications require multiple specialized skill sets with little cross-over between applications.

ID Objective



10.1 Reduce the number of silo'd applications in order to maximize specialized IT skills across multiple applications within 12 months of implementation?.

Metric	Baseline	Target	Measurement Method
Number of current silo'd applications.	13 silo'd applications	1 silo'd applications	Count.

ID Problems and Opportunities

11... Efficiencies to TUFFS Administration: Centralized and standardized administration of authentication and access to the application.

ID Objective

11.1 Eliminate password reset requests from regulated entities by providing self service resets and multiple profiles per entity.

Metric	Baseline	Target	Measurement Method
Number of password reset requests per year.	25 per year	5 per year	CPUC IT staff password reset counts based on audit trail.

ID Objective

11.2 Reduce the turnaround time for a password reset by enabling the regulated entity to reset their own passwords.

Metric	Baseline	Target	Measurement Method
Average number of hours elapsed between the request and the reset.	8 hours per request	30 minutes per request	CPUC IT staff password reset counts based on audit trail.

1.6 Strategic Business Alignment

Strategic Business Goals	Alignment
Promote reliable utility service at reasonable rates	Implementing eFAST will have a positive impact on promoting reliable utility services at reasonable rates. The project will reduce the elapsed filing processing time, from filing to approval, allowing new entities to bring their services to the public more quickly.
Protect the environment	Implementing eFAST will have a positive impact on protecting the environment, by reducing paper-based communication between external entities and the CPUC.
Promote innovation	Implementing eFAST will have a positive, direct impact on promoting innovation and healthy market competition. The project will reduce the elapsed application processing time, from filing to approval, allowing new external entities to bring their services to the public more quickly.
Provide transparency to the public	Implementing eFAST will have a positive impact on providing transparency to the public. The project will make application filing and equipment updating requirements more clear and transparent to external entities.



Gate 1 Business Analysis Criteria Scorecard

ITPOC Administrative Evaluation

Submittal Completeness

- General Information
- Business Sponsor and Key Stakeholders
- 1.1 Business Drivers
- 1.2 Statutes or Legislation
- 1.3 Program Background and Context
- 1.4 Business Problem or Opportunity Summary
- 1.5 Business Problem or Opportunity and Objectives Table
- 1.6 Strategic Business Alignment

Comments

Needs: clarify section 1.2; 1.3 need program focus; 1.4 needs description of problems; 1.5 needs SMART objectives/targets; link 1.6 to 1.4 problems and 1.2 biz drivers. Done.

ITPOC Content Evaluation

1.3 Program Background & Context

Assessment

Have all business programs impacted by this proposal been identified?

- Meets Requirements
- Deficiencies

Has an overview of each impacted business program area been provided?

- Meets Requirements
- Deficiencies

1.4 Business Problem or Opportunity Summary

Assessment

How well has the business need, issue or problem that this proposal will address been defined?

- Meets Requirements
- Deficiencies

How well has the importance of this project been described, including why the proposal is being considered at this time?

- Meets Requirements
- Deficiencies

Have the effects and/or impact of the statutes or mandates been identified? (if applicable)

- Meets Requirements
- Deficiencies

Has the business impact of not executing the proposal been described?

- Meets Requirements
- Deficiencies



Have information security and/or privacy considerations been described, such as confidentiality, integrity and availability? Meets Requirements Deficiencies

1.5 Business Problem or Opportunity and Objectives Table **Assessment**

Have the individual problems and opportunities that are expected to be met by this proposal been identified? Meets Requirements Deficiencies

Have expected short-term and long-term objectives been identified? Is there one objective for each business problem or opportunity? Are they specific, measurable and realistic? Meets Requirements Deficiencies

Have measurements for each objective been identified? Will the measurements adequately provide the data necessary to determine if the objectives have been met? Meets Requirements Deficiencies

1.6 Strategic Business Alignment **Assessment**

Has an adequate description of how the proposal will help to achieve the strategic goals been provided? Meets Requirements Deficiencies

Critical Partner Evaluation

Enterprise Architecture **Yes**

Can the Business Problem or Opportunity and Objectives be validated against the Business Strategy for alignment?

Is the proposal in accordance with the organization's target (future state) enterprise architecture and enterprise roadmap (if these artifacts are available)?

Not Applicable. The future state enterprise architecture and enterprise roadmap of the PUC are not available.

This S1BA is referred to as "E-FAST Enterprise Architecture", which is not the correct way to use the term "Enterprise Architecture". It may be more appropriate to refer to this S1BA as "E-FAST Enterprise e-Filing Platform".

If PUC analyzes all their business objectives (listed in many S1BAs) together and identifies the target business, information, applications, and technology architectures to achieve those business objectives, then that becomes the target enterprise architecture. Such effort typically should precede the various S1BAs. S1BAs are for individual projects that would ideally build a portion of the target enterprise architecture. This S1BA proposes to build a "platform" for e-filing which will be an enterprise IT capability to support current planned and future business improvements. This is a good idea, but this is only one component, possibly, at the PUC enterprise level.

Are there any reference architectures, reusable assets, and/or shared business services in existing state-wide standards and guidance that can be included in Stage 2 Alternatives Analysis?



All the Reference Architectures can be used as guidance to create PUC's target Enterprise Architecture. For this "e-filing" platform, PUC may determine the applicable components by reviewing the state's Service-Oriented Architecture, Enterprise Application Integration, Identity and Access Management, and eGov Reference Architectures.

IT Project Oversight and Consulting Division

Yes

Does the organization have capacity to take on more projects during the proposed time period of project initiation?

The CPUC PMO includes 4 staff: 1 has completed the CA-PMM course; 4 are PMP's. Over the last several years, CPUC's governance process is well established and successful PM experience has grown. The CPUC is staggering the start dates of all proposals and projects to fit within PM and business subject matter expert availability constraints and funding constraints. Reference IT Portfolio Report 2014 for all priority projects and proposals.

Does the organization and project management infrastructure have (or appear to have) experience with similar projects and a demonstrated capability of delivering the project successfully?

Does the proposal provide any opportunity for leveraging other existing initiatives or services in state?

Not clear at this phase.

What, if any, issues and/or risks do you see that would affect the Stage 2 Alternative Analysis?

Potential to underestimate resources necessary for a sane project schedule.

Identify which of the following goals of the California IT Strategic Plan align with this proposal. Select all that apply:

- | | |
|---|---|
| <input checked="" type="checkbox"/> Accessible and Mobile Government | <input checked="" type="checkbox"/> Information is an Asset |
| <input type="checkbox"/> Leadership and Collaboration Yield Results | <input type="checkbox"/> Capable Information Technology Workforce |
| <input checked="" type="checkbox"/> Efficient, Consolidated, and Reliable Infrastructure and Services | |

California Information Security Office

Yes

Are there any privacy or confidentiality laws or regulations which will require a Privacy Impact Assessment?

The CISO recommends CPUC consult with FTB, EDD, and/or BOE to discuss lessons learned in developing an e-filing capability. The CISO recommends the CPUC conduct a Privacy Impact Assessment (PIA) applicable to this project. The CISO also recommends the CPUC review, and update where necessary, the Commission's website Privacy Policy and Conditions of Use pages; one of which has not been updated in over four years, at these pages: <http://www.cpuc.ca.gov/PUC/aboutsite/privacy.htm> and <http://www.cpuc.ca.gov/PUC/aboutsite/use.htm>.

Have any information security and or privacy program requirements (SAM Section 5100, and SAM Chapter 5300) not been addressed, or require significant program remediation?

Undoubtedly, CPUC is sensitive to the security requirements needed in a project that seeks to move from paper filing to e-filing. The CISO reminds CPUC that state information security policy and standards were refreshed in late 2013 (See SAM Chapter 5300). >CPUC: The CPUC data center is certified to the following standards: Tier III, PCI-DCSS, FISMA, SAS 70 type II, NIST SP800-53, or ISO 27002. (FSR extract) Why "or"? Which one(s) is(are) followed?

Customer Delivery Division

Yes



Is there any opportunity to leverage Data Center Services?

Re: TUFFS - needs Problem statement to be consistent with others in 1.4; also in 1.5 needs Problem/Objective. Not clear re: opportunity to leverage at this time. CPUC mentions "eFAST will reduce the technical silo solutions". Is there a reason why all silo'd solutions cannot be consolidated / eliminate all existing silo'd systems with available solutions? If there are silo'd systems that cannot be consolidated, which systems are they and describe why consolidation would be a problem.

Office of Geospatial Information Systems **Yes**

Is there any opportunity to leverage Geospatial Information Systems?

No.

Is there an opportunity to leverage existing GIS infrastructure and services?

No.

Gate 1 Exit Criteria

Criteria	Comment
Enterprise Architecture has reviewed <input checked="" type="checkbox"/>	If PUC analyzes all their business objectives (listed in many S1BAs) together and identifies the target business, information, applications, and technology architectures to achieve those business objectives, then that becomes the target enterprise architecture. Such effort typically should precede the various S1BAs. S1BAs are for individual projects that would ideally build a portion of the target enterprise architecture. This S1BA proposes to build a "platform for e-filing" which will be an enterprise IT capability to support current planned and future business improvements. This is a good idea, but this is only one component, possibly, at the PUC enterprise level.
IT Project Oversight and Consulting Division has reviewed and approved <input checked="" type="checkbox"/>	The CPUC is staggering the start dates of all proposals and projects to fit within PM and business subject matter expert availability constraints and funding constraints. Reference IT Portfolio Report 2014 for all priority projects and proposals.
California Information Security Office has reviewed <input checked="" type="checkbox"/>	Consistent with the principles listed in Government Code 11019.9 and Civil Code Section 1798, the CPUC shall conduct a privacy impact assessment in regard to the proper handling of personally identifiable information.
Customer Delivery Division has reviewed <input checked="" type="checkbox"/>	Concern regarding silo'd applications/systems, therefore please include OTech in next phase.
Office of Geospatial Information Systems has reviewed <input checked="" type="checkbox"/>	



Business Analysis deliverable is acceptable	<input checked="" type="checkbox"/>	
Approval of the proposal(based on what is known at this stage) is highly probable	<input checked="" type="checkbox"/>	
California Department of Technology Decision		
Assessment		
<input type="radio"/> Approved	<input type="radio"/> Not Approved	
<input checked="" type="radio"/> Approved with conditions	<input type="radio"/> Withdrawn	
Explanation		
<p>The California Department of Technology has completed the review of the e-Filing Administration Support (e-FAST) proposal. The Department of Technology recommends approval of this proposal with the following conditions:</p> <ol style="list-style-type: none">1. the CPUC collaborate with the CalTech Enterprise Architecture unit to ensure a complete understanding of the entire EA scope and where e-filing fits in and what is not included,2. the CPUC collaborate with FTB, EDD and/or BOE to discuss lessons learned in developing an e-filing capability,3. the CPUC collaborate with OTech regarding potential expertise and solutions, including silo'd systems, and4. the CPUC conduct a Privacy Impact Assessment for this project.		



Appendix B – Security and Privacy Questionnaire

1.0 INTRODUCTION

The CPUC's responses to the following questionnaire describe the information security and privacy components associated with the eFAST Project.

2.0 INFORMATION SECURITY OFFICER (ISO) ROLE AND RESPONSIBILITIES

1. What is the role and responsibilities of the Agency ISO in relationship to this project?
 - The Information Technology Branch has an Information Security Officer who will review the requirements, design, test plan, implementation plan, and operations plan to ensure that adequate security considerations have been built into the system and operating processes.
2. Will the ISO be involved in developing and reviewing the security requirements?
 - Yes
3. Will the ISO be involved in developing and reviewing the security testing efforts?
 - Yes
4. Has the ISO participated in the response to these questions and signed off on the project-related document(s)?
 - Yes

3.0 PROPOSED SYSTEM

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

A steering committee made up of the following CPUC divisions:

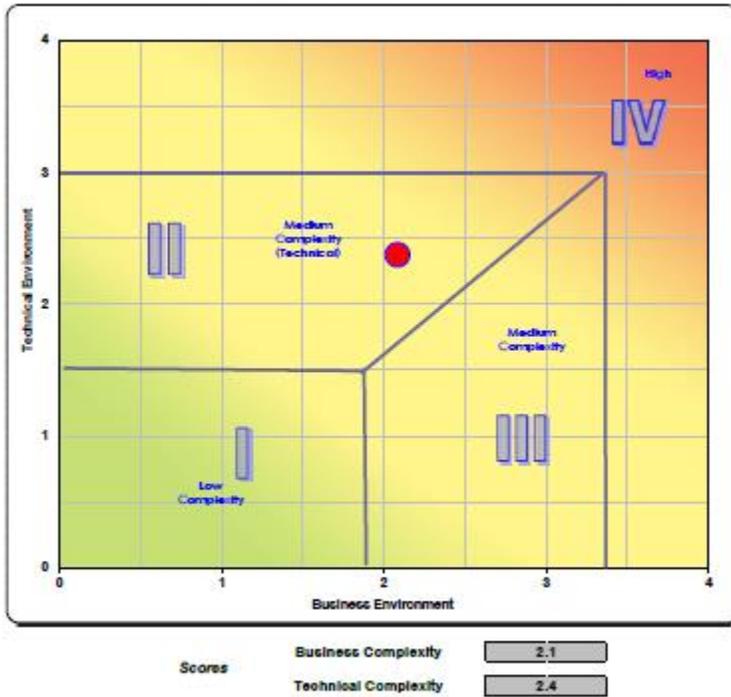
 - Safety and Enforcement Division
 - Communications Division
 - Water and Audits Division
 - Energy Division
 - Administrative Services Division
 2. Who will be the custodians and users of the system?
 - CPUC Information Technology Services Branch
 - Regulated Utilities
 - CPUC Program Staff
-



-
- General Public
3. Has the data for the system been classified by the owner? Explain.
 - Data elements in eFAST have been classified as public or private
 4. Does the project require development of new application code or modification of existing code? Explain.
 - eFAST will be implemented using configurable best of breed tools. New application code will be required only to develop interfaces between eFAST and CPUC internal systems of record.
 5. Will your Agency/state entity share the data for the system with other entities? If so, who?
 - No
 6. If data for the system is to be shared with other entities, will your Agency/state entity implement data exchange agreements with the entities? Explain.
 - N/A
 7. Are there checkpoints throughout the software development life cycle (SDLC) verifying and certifying that the security requirements are being met?
 - Yes, these will be specified in the project schedule during project initiation.
 8. At what points will risk assessments be performed throughout the SDLC?
 - Risk assessments will be performed at each SDLC phase start
 9. At what point will vulnerability assessments be performed once the system is put into production (e.g., ongoing risk management after implementation)?
 - Vulnerability assessments will be performed prior to and immediately following deployment of the system into the production environment.
 10. Will this system collect federal data? If so, have you yet determined the National Institute for Standards and Technology 800-53 rating (i.e., high / medium / low)?
 - No
 11. Does your Agency/state entity's IT Capital Plan address information security and privacy as related to this system?
 - No, this is not addressed on the IT Capital Plan.
-



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





Appendix D – Economic Analysis Worksheets

Reference attached file “CPUC eFAST EAW Worksheets_Rev1.xls”.
