

**Prepaid Mobile Telephony Service Surcharge Collection (MTS)
8660-079**

**Feasibility Study Report
January 20, 2015**

State of California
Public Utilities Commission





Prepaid Mobile Telephony Service Surcharge Collection (MTS)

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Information Technology Project Request
Feasibility Study Report

1.0 Executive Approval Transmittal



Department Name

Public Utilities Commission

Project Title

AB-1717: Prepaid Mobile Telephony Service Surcharge Collection

Project Acronym	Department Priority	Agency Priority
MTS	1	1

I am submitting the attached Feasibility Study Report (FSR) in support of the California Public Utilities Commission’s request for approval by the California Department of Technology approval for this project.

I certify that the FSR was prepared in accordance with State Administrative Manual Sections 4920-4930.1.

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

I also certify that the acquisition of the applicable information technology (IT) product(s) or service(s) required by my department 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 page).



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APPROVAL SIGNATURES		
Acting Chief Information Officer		Date Signed
Printed name:	Jesse Mann	
Budget Officer		Date Signed
Printed name:	Audrey Kitzes	
Department Director		Date Signed
Printed name:	Michelle Cooke	



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 IT project meets the definition of a national security system.
No	The 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 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	<p>Meeting the accessibility requirements would constitute an "undue burden" (i.e., a significant difficulty or expense considering all agency resources). 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> <p>The CPUC provides a format for the visually impaired on the CPUC website.</p>



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1.1 Executive Summary

The California Public Utilities Commission (CPUC or Commission) regulates privately owned public utilities operating in the state of California, including telephone corporations.

New legislation in AB1717: *Telecommunications: prepaid mobile telephony services: state surcharge and fees: local charges collection* requires that the CPUC user fee, California's six universal service surcharges, 911 surcharge, and applicable local Utilities User Tax (UUT) be aggregated into one Mobile Telephony Service (MTS) surcharge when assessed on intrastate prepaid wireless telephone services.

The recommendation of this feasibility study is to enhance the Commission's Telecommunications User Fees Filing System (TUFFS) to meet the new business requirements created by AB1717.

The proposed solution will be implemented in three phases:

- Phase 1) MTS Surcharge Reporting and Remittance
- Phase 2) Pre-defined MTS Surcharge Reports
- Phase 3) Ad hoc Reporting Capability.



2.0 Information Technology Project Summary Package

2.1 Section A: Executive Summary

1.	Submittal Date	December 19, 2014
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		FSR	SPR	PSP Only	Other:
2.	Type of Document	√			
	Project Number	8660-079			

			Estimated Project Dates	
3.	Project Title	Prepaid Mobile Telephony Service Surcharge Collection	Start	End
	Project Acronym	MTS	1/1/15	7/13/17

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



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6.	Project Objectives
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Objective (S1BA 1.1) – State Mandate: Support the newly mandated business requirement that requires the separate collection and tracking of surcharges and fees through the MTS from direct and indirect sales of prepaid wireless telephony services.

Objective (S1BA 1.2) – State Mandate: Collect, track and separate the MTS into the following groupings: 1) six Universal Service/PPP Surcharges and 2) CPUC User Fee - to be used to maintain the continued oversight of program funding.

Objective (S1BA 1.3) – State Mandate: Provide wireless telecommunication carriers the ability to report and remit the MTS due on direct sale revenues to the CPUC.



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Objective (S1BA 1.3) – State Mandate: Meet the requirement of determining the appropriate surcharge percentages to be assessed for the MTS that will cover the new costs associated with the MTS as well as meet ongoing program funding requirements.

7.	Proposed Solution
<p>The recommendation of this feasibility study is to enhance the Telecommunications User Fees Filing System (TUFFS) to meet the business requirements to support the AB1717 legislation by December 31, 2015.</p>	

8.	Major Milestones	Est. Complete Date
	Contracted Resources Procurement	2/20/2015
	Project Initiation	3/10/2015
	Requirements	4/3/2015
	System Planning and Design	7/3/2015
	Phase 1 - MTS Surcharge Reporting and Remittance	1/8/2016
	Phase 2 - Pre-Defined MTS Surcharge Reports	2/26/2016
	Phase 3 - TUFFS Ad-hoc Reporting Capability	4/29/2016
	Project End	5/27/2016
	Post Implementation Evaluation	7/13/2017
	Project Complete	7/13/2017
	Key Deliverables	
	Communication Management Plan	01/2015
	Project Management Plan	01/2015
	Project Master Schedule	02/2015
	Risk Management Plan	02/2015
	Vendor Onboard	03/2015
	Organizational Change Management Plan	04/2015
	Requirements	04/2015
	System Design	07/2015
	Maintenance & Operations Plan	08/2015



2.2 Section B: Project Contacts

Project #	8660-079
Date Rec'd	
Doc. Type	

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 AIO	Jesse	Mann	415	703-1509		415	703.1758	jesse.mann@cpuc.ca.gov
Acting CIO	Jesse	Mann	415	703-1509		415	703.1758	jesse.mann@cpuc.ca.gov
Project Sponsor	Michael	Amato	415	703-1863		415	703.1758	michael.amato@cpuc.ca.gov

Direct Contacts								
	First Name	Last Name	Area Code	Phone #	Ext.	Area Code	Fax #	E-mail
Doc. Prepared By/ Primary Contact	Eric	Olson	(925)	303-6480		310	792-6246	eric.olson@bluecranesolutions.com
Project Manager	Daniela	Dell'Aera	415	703-2909		415	703-1758	dcd@cpuc.ca.gov



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

1.	What is the date of your current Operational Recovery Plan (ORP)?	Date	2/2014
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 #	8660-079
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Doc. Type	

		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 departmental 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 Finance.		



2.4 Section D: Budget Information

	Project #	8660-079
Date Rec'd		
Doc. Type		

Budget Augmentation Required?

No									
Yes	√			If YES, indicate fiscal year(s) and associated amount:					
		FY	14/15	FY	15/16	FY	16/17		
			\$0		\$2,071,052		\$838,161		

PROJECT COSTS

1.	Fiscal Year	14/15	15/16	16/17	TOTAL
2.	One-Time Cost	\$938,480	\$2,323,766	\$0	\$3,262,246
3.	Continuing Costs	\$0	\$55,066	\$838,161	\$893,227
4.	TOTAL PROJECT BUDGET	\$938,480	\$2,378,832	\$838,161	\$4,155,473



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SOURCES OF FUNDING

5.	General Fund				
6.	Redirection	\$938,480	\$307,780	\$0	\$1,246,260
7.	Reimbursements				\$0
8.	Federal Funds				\$0
9.	Special Funds	\$0	\$2,071,052	\$838,161	\$2,909,213
10.	Grant Funds				\$0
11.	Other Funds				\$0
12.	PROJECT BUDGET	\$938,480	\$2,378,832	\$838,161	\$4,155,473

PROJECT FINANCIAL BENEFITS

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

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



2.5 Section E: Vendor Project Budget

Vendor Cost for FSR Development (if applicable)	\$66,600
Vendor Name	Bluecrane, Inc.

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VENDOR PROJECT BUDGET

1.	Fiscal Year	2014/15	2015/16	2016/17	TOTAL
2.	Primary Vendor Budget	\$512,160	\$689,040		\$1,201,200
3.	Oversight Budget	\$56,280	\$112,560		\$168,840
4.	IV&V Budget	\$36,300	\$79,860		\$116,160
5.	Other Budget – Project Manager	\$154,000	\$338,800		\$492,800
6.	Other Budget - Citibank	0	\$150,000		\$150,000
7.	TOTAL VENDOR BUDGET	\$758,740	\$1,370,260		\$2,129,000



2.6 Section F: Risk Assessment Information

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Doc. Type	

RISK ASSESSMENT

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

General Comment(s)
Risks for this project have been identified, captured, and discussed on an ongoing basis. The highest priority risks have been escalated as needed for resolution. Risks are listed in Section 7.0 <i>Risk Register</i>



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3.0 Business Analysis

Appendix A is the Prepaid Mobile Telephony Surcharge Collection Stage 1 Business Analysis. A summary of the S1BA follows.

There are a number of surcharges and taxes assessed on telecommunications services by the State of California, city and county governments, and federal agencies. These taxes and surcharges are collected by telecommunications carriers which then remit these funds as directed by the appropriate authorities.

On October 1, 2014, Governor Brown signed into law AB1717: *Telecommunications: prepaid mobile telephony services: state surcharge and fees: local charges collection*. This legislation changes how the surcharges associated with prepaid mobile telephony (i.e., wireless) services identified in Section 1.3 of the bill are collected and remitted, and becomes effective on January 1, 2015, with implementation to be completed by January 1, 2016.

The legislation requires that the following surcharges and fees be aggregated into one Mobile Telephony Service (MTS) surcharge:

- CPUC User Fee
- Universal Service Surcharges
- 911 Surcharge
- Utility User Taxes

Exhibit 1 displays the services and their market share for which the MTS surcharge is applicable.

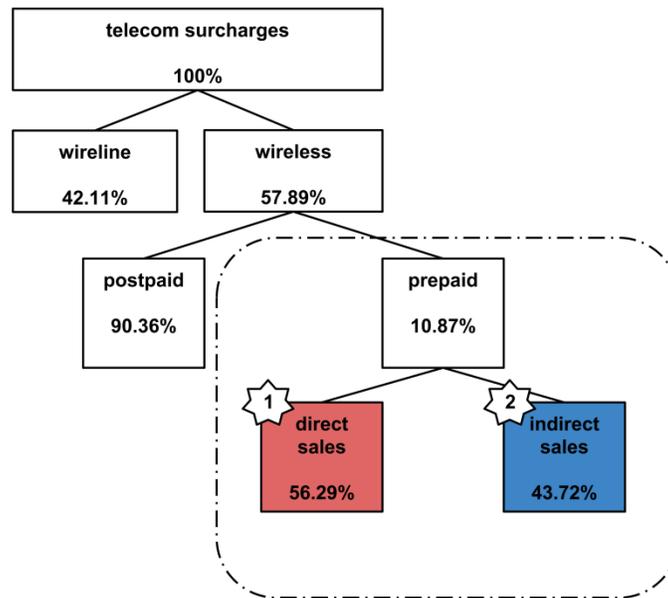


Exhibit 1. Telecommunications Services Revenue



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CPUC Surcharges and Fees

User Fee

A fee, annually established by the CPUC, is levied on all telecommunications carriers providing services directly to customers or subscribers within California. Revenues collected from this fee fund the annual budget of the Commission for regulating Telecommunications utilities. The amount of fees paid by each telecommunications carrier is determined by revenues subject to fees multiplied by a fee factor. Revenues that are subject to fees include all intrastate customer billings for telecommunications services.

The CPUC User Fee is collected from customers and those monies are then remitted by the carrier to the Commission using a manual process on a quarterly or annual basis, depending on the amount of revenue generated by the utility.

Public Purpose Program Surcharges

Currently, there are six CPUC mandated telecommunications all-end-user surcharges supporting various public programs in California. The all-end-user surcharge rates vary from program to program and are adjusted periodically based on the forecasted demand of the programs. These surcharges are assessed by the carrier as a percentage of a customer's bill and after collection by the utility are remitted to the CPUC using an automated process. These monies are due monthly or bi-annually depending on the amount of revenue being generated by the utility.

The six all-end-user surcharges are listed below:

- **Universal Service / Public Purpose Program (PPP) Surcharges**
 - **Universal Lifeline Telephone Service (ULTS):** provides discounted home phone and cell phone services to qualified households.
 - **Deaf and Disabled Telecommunications Program (DDTP):** provides telecommunications devices to deaf or hearing impaired consumers.
 - **California High Cost Fund-A (CHCF-A):** provides a source of supplemental revenues to 13 small local exchange carriers (LECs) for the purpose of minimizing any basic telephone service rate disparity between rural and metropolitan areas.
 - **California High Cost Fund-B (CHCF-B):** provides subsidies to carriers of last resort (COLRs) for providing basic local telephone service to residential customers in high-cost areas.
 - **California Teleconnect Fund (CTF):** provides a 50% discount on select communications services to schools, libraries, hospitals, and other non-profit organizations.
 - **California Advanced Services Fund (CASF):** promotes deployment of high-quality advanced communications services to all Californians.



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Other Surcharges and Fees

The following charges are collected as part of the MTS surcharge but not administered by the CPUC.

- **Emergency Telephone (911) Users Surcharge Tax:** Carriers collect and remit to the Board of Equalization (BOE) on a monthly basis a fee that provides funding for Emergency Telephone Service (911) in California.
- **Utility Users Tax (UUT):** Four counties and approximately 150 cities, representing about 50% of the population of California, have imposed utility taxes on their residents. These fees are collected from the end-user and remitted to the local jurisdiction as directed by the local authority.

In addition to the aggregation of surcharges the MTS also modifies the methods by which fees are collected and remitted on prepaid wireless telephone services. The following changes provide the most significant impact for the CPUC:

Surcharges from Third-Party Retail Sales

The MTS creates a point of sale mechanism for the collection of surcharges from prepaid wireless services when they are sold at a third party retailer. The MTS surcharge is required to be assessed on the sales price of prepaid mobile telephony services and must be collected by the retailer from the customer at the point of sale. The retailer is then required to remit the fees collected (less a 2% recovery) to the BOE on a quarterly basis. BOE is then required to transfer the funds to the "Prepaid MTS PUC Account" report the amount of the transfer to the commission, also on a quarterly basis. These funds are finally then transferred to the appropriate CPUC accounts for the individual public purpose programs and the user fee.

Surcharges from Direct Sales

Telecommunications corporations will continue to be required to separately assess, collect and remit surcharges on the direct sale of prepaid mobile telephone services. However for prepaid wireless services only these will now be in the form of the MTS surcharge which uses different rates and has a different remittance schedule than the other surcharges remitted to the Commission. Direct sales include those services sold directly by the carrier at company stores, through their on-line websites, through the mobile device, or over the telephone with the carrier.

The Telecommunications User Fees Filing System (TUFFS) currently provides carriers a web portal to remit surcharges on a monthly basis, automatically calculating the amount due based on intrastate revenue, and automatically charging late fees when appropriate. The TUFFS currently handles all surcharge tracking but due to the differing requirements of the MTS surcharge the system is unable to meet this new obligation of the Commission.

The Commission will therefore be required to develop new systems or to modify existing systems to meet the new requirements discussed above that are imposed by the bill.



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New processes and systems will be necessary that allow the Commission to continue to identify and track the remittance of surcharges and fees by prepaid wireless carriers that are derived from direct sales as well as those monies remitted to BOE from retailers through indirect sales.



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

A telecommunications corporation (carrier) who provides intrastate telecommunications services in California is required to assess and collect from their end-users surcharges, taxes and fees and remit those monies to the appropriate authority. Those monies are reported and remitted to the CPUC using two processes.

The User fee requirement to report and remit is satisfied by the by the carrier submitting a paper User Fee form along with a bank check to the CPUC's Fiscal Office. In order to report and remit surcharges, carriers use the Telecommunications User Fees Filing System (TUFFS). The TUFFS allows carriers to calculate, report, and remit surcharges on a monthly basis electronically via a web portal. Payments are remitted using an Automated Clearing House (ACH) debit process where funds are debited from the carrier's bank account and credited to California accounts at Citibank.

Exhibit 2 shows the interaction between parties involved in the reporting and remittance of telecommunications surcharges.

1. Surcharge rates are adopted by vote of the Commission.
2. Communications Division maintains surcharge rates in TUFFS.
3. Carriers assess and collect surcharges from customers at the Commission adopted rates.
4. Carriers use TUFFS to report their total intrastate revenue.
5. TUFFS calculates the program specific surcharges based on revenue reported by the carrier and late payment penalties if required.
6. Carriers may adjust the system calculated amounts to reflect their actual collected amounts on a per-program basis.
7. Carriers use the Citibank ACH portal to remit payments based on their reported surcharge amounts. Citibank provides electronic payment data in the form of data files to the CPUC via a "data drop" automated process* on their end. This data is then uploaded to the TUFFS database via an automated daily job, and is reconciled via the carrier ID and billing period fields.
8. When the Citibank files are loaded, the system compares what was reported by the carrier to the amount for the carrier remitted via Citibank. The system then calculates and maintains any due amounts or late payment penalties.
9. Carriers may request adjustments to their reported revenue amount, surcharge remittance, and payment via a request sent to the Fiscal Office.

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10. The Fiscal Office approves or denies requests based on information provided by the carrier.
11. The Fiscal Office also sends “payment required” letters at 30, 60, and 90 days to those carriers that have reported, but not remitted, monies due.
12. Carriers who are more than 90 days late in reporting or remitting may have their operating authority revoked by the Commission (CPUC).

* **“Data Drop” processing method for Citibank secure, sensitive files** (this process was set up at the time Citibank contract was established)

- Citibank/FIS produces a PGP encrypted daily file to a secured location for pickup by FTP from an IP address validated location using a login and password.
- The CPUC downloads the files via an automated FTP transfer from the above location.
- Then the files are decrypted, the data parsed, and then uploaded into the TUFFS external database tables. All files are removed from the server file systems.
- All of the data is then transferred across a database link into the TUFFS internal database tables, deleting all external files and data.
- The data remaining on the external database will consist of the metadata regarding the daily upload and transfer event.



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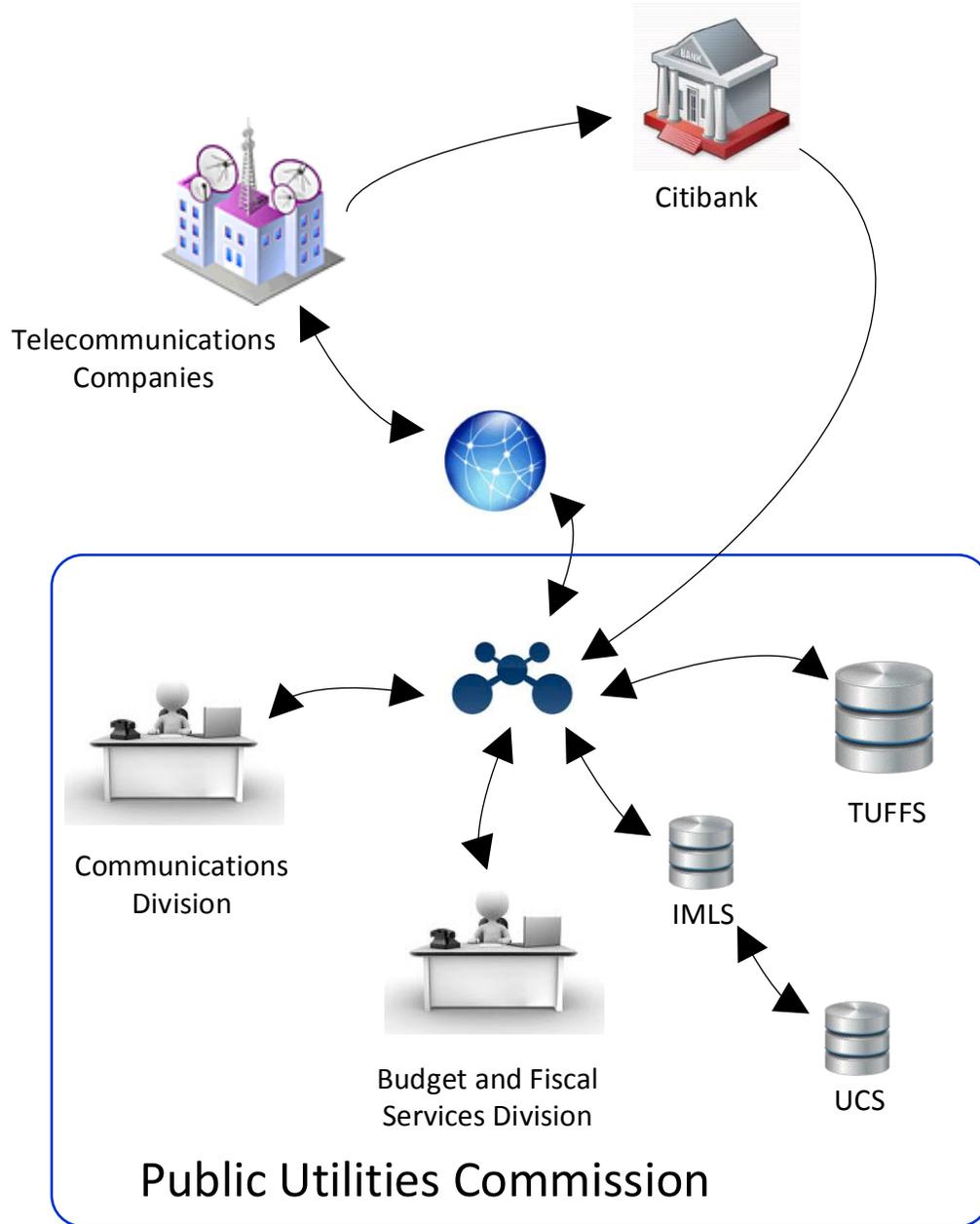


Exhibit 2. Current Telephony Surcharge Collection

Exhibit 3 identifies the functionality provided by TUFFS to support the reporting and collection of telecommunication surcharges. See sample TUFFS screen images in Appendix B.



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Carrier Profile

1. Provide the capability for carriers to create and maintain a login profile containing identification information such as name, contact information (such as email address, and phone number), and login credentials (log in ID and password)
2. Provide the capability for carriers to indicate qualification for the De Minimis Rule*

* De Minimis carriers are carriers whose average intrastate billings are equal to or less than \$60,000 in a six month period. De Minimis carriers are permitted to pay on a semi-annual basis for the periods of January to June and July to December.

Reporting Telephony Revenue to CPUC

1. Provide the capability for carriers to report revenue for the current monthly reporting period or a previous monthly reporting period
2. Provide the capability to calculate and display individual surcharges based on reported revenue
3. Provide the capability for carriers to identify an adjustment to one or more calculated surcharges
4. Provide the capability to calculate and display a penalty amount
5. Provide the capability to calculate and display the total remittance amount
6. Provide the capability to display a surcharge transmittal form containing a summary of the surcharges to be remitted by the carrier
7. Provide the capability for carriers to request an adjustment to previously reported surcharges
8. Provide the capability for the Fiscal Office to approve or deny requests for adjustments

Remitting Surcharges

1. Provide the capability for carriers to launch a payment service to remit payment for the identified surcharges
2. Provide the capability for carriers to pay the surcharges using a payment service

Reports

(The following internal reports are used by Communications Division and Fiscal Office)

1. Provide a Carrier Information Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name
 - b. Display identification and contact information for a selected carrier (extracted from the current Utility Contact System that is maintained by the Licensing Group, Communications Division)
2. Provide a Billing Surcharge Detail Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name
 - b. Display the list of surcharge reporting transactions submitted by the selected carrier
 - c. Display reported revenue, calculated surcharges, adjustments, and penalty interest for the selected carrier and reporting period
3. Provide a Manual Adjustment Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name
 - b. Display adjustment information for the selected carrier and reporting period
4. Provide an Outstanding Balance Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name



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- b. Display the list of surcharge reporting transactions submitted by the selected carrier
- c. Display reported revenue and calculated surcharges, adjustments, penalty interest, remittance variance, and days late for the selected carrier and reporting period
5. Provide a Carrier Payment Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name
 - b. Display total payments made for each individual surcharge for the time period selected
6. Provide a Reported vs. Payment Report
 - a. Allow selection of a carrier from a list of carriers or by searching on carrier name
 - b. Display total payments made for each individual surcharge for the time period selected

Administration

1. Provide the capability to create, modify, and remove user ids and passwords for carriers and internal CPUC users
2. Provide the capability to modify the rates for the individual surcharges for a specified timeframe

Exhibit 3. TUFFS Functionality***Adequacy of the Current System***

The current TUFFS system meets the requirements of the Commission (CPUC) with regards to providing a mechanism for carriers to report and remit surcharges. It has been used for four years (version 1.0 released July 2010 and version 1.1, containing fixes, released July 2011) and performs that function reliably. The area where the system lacks functionality is in its ability to provide reports. Currently the only reports available are several hard coded reports that are very similar in the information provided. There is no ad-hoc reporting capability and no data download capability. This lack of reporting makes analyzing the data available from the system by analysts in the Communications Division a resource intensive process.

Data Characteristics

Approximate volume estimates for 2013:

- Number of Carriers: ~400
- Amount of surcharges submitted annually: ~\$400M
- Number of surcharge reporting annually: ~4800
- Number of surcharge program payments ~28800

Security, Privacy, and Confidentiality Considerations

Security - The data generated by CPUC surcharge reporting and collection business processes require protection from unauthorized access. Sensitive and confidential data is protected through the implementation of strong security and privacy standards and practices to reduce the risk of exposing sensitive and confidential documents to the public and reduce the risk of losing data and documents.



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Users of the system are authenticated before being granted access to functions and data. The general public is not allowed access to the surcharge reporting and remittance components of the system. Only carriers are given secured access to the surcharge reporting and remittance of the system.

Software

CPUC supports three production Oracle database servers, one production Enterprise SQL Server database server and three dev/test/training database servers, one for each production environment except the data warehouse.

The approximate size of the production databases are as follows:

- Internal Production – 350GB
- External DMZ Production – 75GB
- Data Warehouse – 20GB
- Internal SQL Server Production – 25GB

User Interfaces

External Interfaces

With regards to user interfaces, the current TUFFS system has a module that is a “public-facing” web interface for the carriers to report surcharges and connect to Citibank to remit surcharges via the Citibank online payment system.

The Identity Management Layer System (IMLS) provides access security for companies accessing CPUC Web applications such as TUFFS. An LDAP server is used for the authentication of username and passwords. Authorization is provided by IMLS, and a company is given access to CPUC web applications only if it is determined as “Active” in IMLS. For TUFFS, the IMLS records are provided by the CPUC’s Utility Contact System (UCS).

Internal Interfaces

The TUFFS system also has an internal module, which is utilized by business program areas inside the CPUC Communications Division and Fiscal Office. This internal module is only available to users on the internal CPUC network.

Information is passed between the two systems using a database link with all externally entered information moved immediately to the internal database and only public data materialized for view to the external data source with carriers only able to view their own data. There is no direct access of internal information open to external users. All information available to users is passed through the single database link in an asynchronous manner.

Documentation

TUFFS documentation consists of a system design document and an online user guide http://delaps1.cpuc.ca.gov/OracleUserDocs/TUFFS_User_Guide.pdf .



4.2 Technical Environment

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

Expected Life of Proposed Solution – The proposed solution will be designed to be flexible and extensible so as to accommodate future business needs, including business process changes, program changes, the addition of new programs and/or technology environment changes.

The CPUC is evaluating the possibility of combining user fee payment functionality across business processes into one solution. An S1BA for Online Utility Fee Payment was submitted to CalTech in October 2014. There is a possibility that the requirements for AB1717 could at some point be supported by an enterprise payment solution.

However, considering the long implementation timeframes for state systems, this solution may be in place for an extended period of time even if an enterprise payment solution strategy is executed.

State-Level Information Processing Policies - The solution must comply with state policy governing information systems including equipment standards, security measures, and policies.

The project will follow guidelines and policy set forth in the Statewide Information Management Manual (SIMM), Technology Letters (TL), and State Administrative Manual (SAM) specifically sections:

- 1600 et seq. – Records Management
- 4800-5180 – General IT
- 5200 et seq. – IT Procurement
- 5300 et seq. – Information Security
- 6700 et seq. – IT Fiscal

Financial Constraints – The CPUC does not have funding authorized in its current budget to implement the requirements of AB1717. A budget action is therefore necessary to appropriate additional funding to support this project development and MTS administration.

Legal and Public Policy Constraints – The solution will contain confidential business data which requires restricted access and a greater level of system security to meet regulatory and legal requirements. Legal, regulatory, and public policy constraints to be considered during this project include the following:

- California Public Records Act
- Freedom of Information Act
- Information Practices Act



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- Confidentiality requirements for Personally Identifiable Information (PII)
- Security and Privacy requirements for PII

The new solution must adhere to the CPUC and California Information Security Office (CISO) privacy policies. It must also meet administrative requirements contained in the State Administrative Manual: <http://sam.dgs.ca.gov/> . The applicability of specific policies to this solution will be identified and then documented as detailed requirements during implementation of the system.

Agency Information Management Policies and Procedures - This project is in compliance with CPUC information management strategies. Policies and procedures that specifically impact the proposed system will be identified during the development of detailed requirements.

Anticipated Changes in Equipment, Software, or the Operating Environment – All application infrastructure currently resides in the CPUC’s data center. However, the CPUC has begun development of an Infrastructure Modernization Plan that will identify a strategy to deliver a more robust and fault tolerant delivery of information and will involve relocation of the production deployments to an offsite data center.

Availability of Personnel – CPUC program and IT staff will be available as subject matter experts (SMEs). The appropriate staff will be assigned to the project roles identified in Section 6.1 *Project Organization*.

4.2.1 Existing Infrastructure

The CPUC operates two distinct application delivery platforms.

- Oracle Database with Oracle Development Tools for the Primary enterprise development and deployment platform.
- Microsoft SQL Server with Microsoft .NET for vendor developed application components that are maintained and deployed by the CPUC.

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

- The Oracle database is the primary database 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.
- The CPUC has an installation of the Oracle Enterprise Business Intelligence Tool, including BI Publisher, which is not fully used due to a lack of the required staff necessary for deployment of a BI environment.
- Oracle Application Express (APEX) is the development tool used by the CPUC Applications Development Team to externally 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.

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- Oracle Enterprise Manager Grid Control is used as the primary 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.

- A number of applications include 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 limited expertise in maintaining deliveries to this platform.
- No custom programming is done by the Applications Programming Group on this platform.

Current Architecture

The production architecture is a web-based implementation consisting of an application server and a database server. CPUC applications generally consist of two parts: one part, accessed by internal CPUC staff and another other part accessed by external stakeholders or public users who would be for example, utility employees and consumers. Data is transferred between the public environment and the internal environment periodically during the day based on the requirements of each application. 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 are accessed using the existing CPUC network. CPUC staff utilizes web browsers to access Applications on the CPUC's internal network (Intranet). Data is also passed between various internal applications and other existing applications running internally at the CPUC's 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.

This infrastructure provides the following capabilities:

- Firewall separation between Internet and trusted zone segments.
- 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 connectivity between CPUC offices.
- Backup and recovery, monitoring tools and virus protection.
- 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)

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CPUC staff will:

- Deploy Applications to internal and DMZ Production environments.
- Be responsible for any server setup and configuration in consultation with vendor staff (where necessary).
- 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 is similar to the production architecture, with the servers scaled down in the number of processors and memory size. At this time all functions, development, testing, and training will be performed on the same server stacks.

- The Development/Test/Training Servers can be remotely accessible to a vendor's development staff through a remote login connection for troubleshooting or development where applicable.
- CPUC 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 staff will be responsible for any server setup and configuration in consultation with vendor staff
- CPUC staff will be responsible for maintaining server, software, backup and recovery, and the monitoring of servers, software, and Application performance.

Exhibit 4 provides a depiction of the current network infrastructure.

Project Management Methodology – The CPUC strives to align its project methodologies to be consistent with CA-PMM and PMI Project Management Methodologies as stated in the Project Management Body of Knowledge (PMBOK). Section 6.0 of this FSR provides a more detailed description of the CPUC methodology.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

Application Group's Production Server Architecture

INTERNAL
Last Updated Nov . 4. 2014

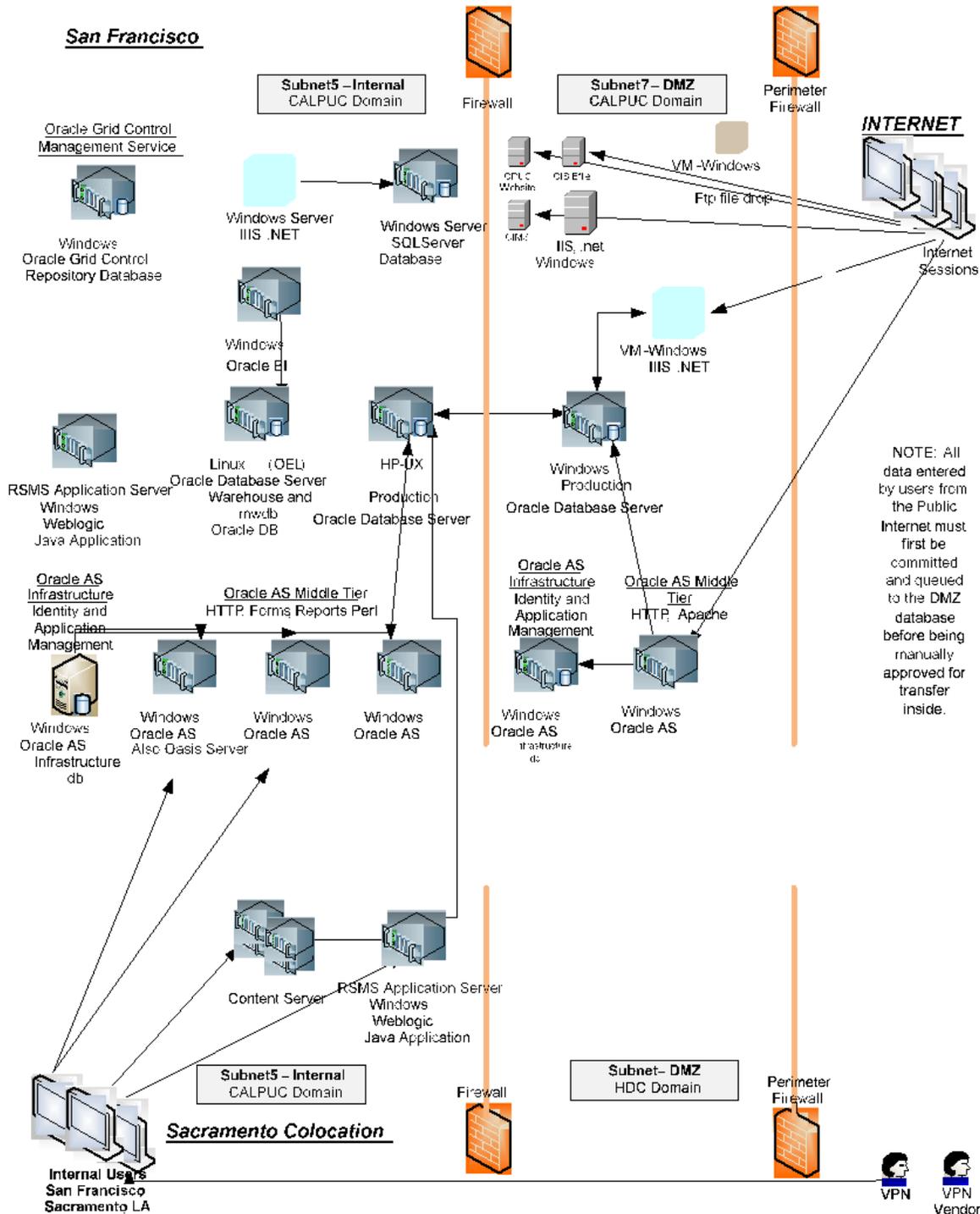


Exhibit 4. Current Network Infrastructure



5.0 Proposed Solution

This section describes the recommended solution including the justification for the selected approach and a description of alternatives considered during the solution analysis. Also identified are the resources required for the one proposed alternative, technical impacts and interfaces, approaches to development and integration, and a recommended procurement approach. The rejected alternatives are described at the end of the section.

As noted in the Stage 1 Business Analysis in Appendix A, AB1717:

Telecommunications: prepaid mobile telephony services: state surcharge and fees: local charges collection was signed into law in October, 2014. This legislation changes how the surcharges associated with prepaid mobile telephony (i.e., wireless) services are collected and remitted. The law becomes effective on January 1, 2015, with implementation to be completed by January 1, 2016.

The legislation requires that the CPUC user fee, California's six universal service surcharges, 911 surcharge, and applicable local Utilities User Tax (UUT) be aggregated into one Mobile Telephony Service (MTS) surcharge that is to be assessed on prepaid wireless telephone service. The MTS is to be collected from customers and remitted by carriers to the CPUC for direct sales and by retailers to the Board of Equalization for indirect sales.

The recommendation of this feasibility study is to enhance the TUFFS system described in Section 4 *Baseline Analysis* to meet the business requirements identified in Section 5.1.2 *Software* of this report by December 31, 2015 as legislatively mandated in AB1717. This recommendation best meets the needs of the Communications Division business program and the strategies of the Commission as a whole.

This recommendation is the result of an analysis of the proposed solution as well as the alternatives as discussed in Section 5.3: *Other Alternatives Considered*. The analysis was based on cost effectiveness, timeliness, and the ability to meet the requirements of AB1717 and of the Communications Division business program.

The new solution will be implemented initially using a combination of in-house and contracted resources (see 5.1.10 *Resource Requirements* and 6.1 *Project Organization*). The CPUC will provide project management, software development, and business analysis resources as well as program subject matter experts (SMEs). The CPUC will also procure contracted software development and business analysis resources to assist with the implementation. Because the CPUC does not have existing resources available for this implementation, an RFO to procure the necessary contracted resources will be released as soon as possible, in order to increase the probability of meeting the January 2016 implementation deadline.

The CPUC conducted a feasibility study to assess potential solutions that would address the business problems, objectives, and requirements for automation to support the program implementation of the MTS surcharges. An analysis of current systems and potential commercial products was conducted to identify viable system solutions.



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Interviews were conducted with CPUC staff and management to evaluate alternatives. The following types of information technology solutions were considered during the feasibility study:

Existing solutions – These are solutions that already exist in the agency that can be enhanced or used as a basis for a new solution.

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

Commercial off-the-shelf (COTS) 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.

Modified off-the-shelf (MOTS) solutions – These are solutions where one or more components of the solution are existing software products that have been implemented for other organizations. Similarly to COTS solutions, these 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.

Transfer solutions – These are solutions that have been implemented by other government agencies that can be obtained and implemented.

Software as a Service (SaaS) solutions – These are subscription-based solutions where access to the solution is provided remotely via the internet or a private network for a monthly fee. Customers of SaaS solutions do not license or own the software nor do they install the software at their location. When the subscription period expires, the application is no longer available to the customer.

Manual solution – This is a solution where manual processes are used to manage information typically using Excel spreadsheets and Access databases.

The proposed solution is described in the following section. Rejected alternative solutions are discussed in Section 5.3.

5.1 Solution Description

The CPUC proposes to implement enhancements to the TUFFS to support the new business needs created by the MTS surcharge. The proposed solution will leverage a proven system to meet the needs of the CPUC. The enhancements to TUFFS will be implemented by a combination of state personnel and contracted 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 requirements. The system will be hosted at the CPUC data center.



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The diagram in Exhibit 5 illustrates the conceptual architecture of the proposed solution showing the components of the solution.

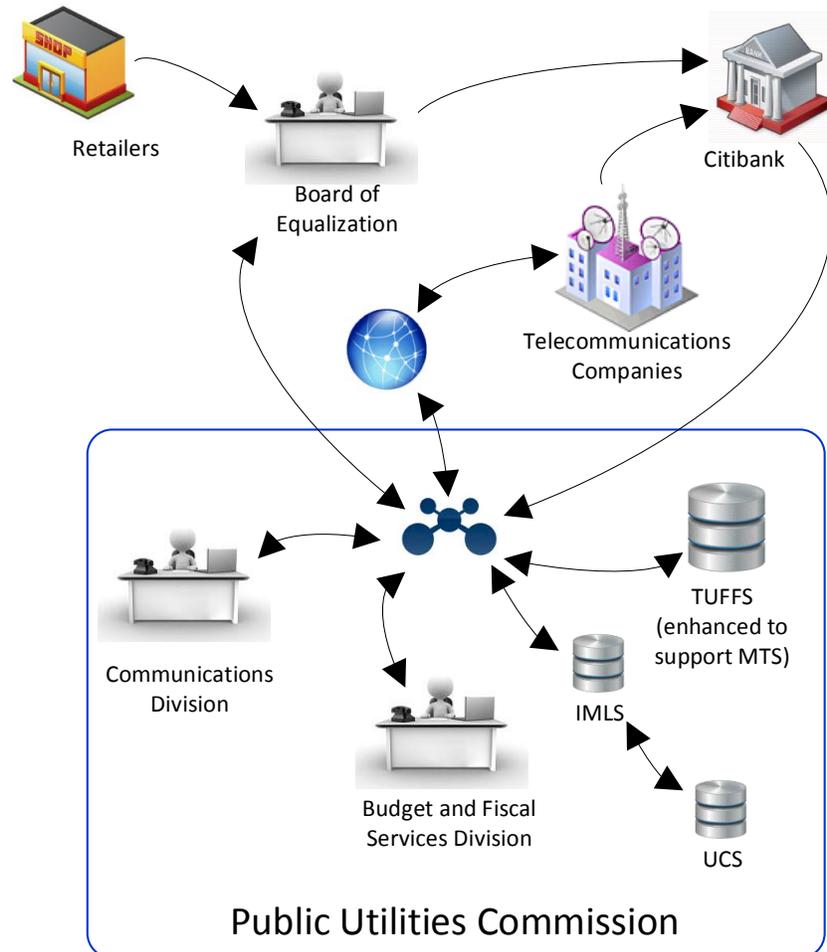


Exhibit 5. Conceptual Diagram of Proposed Solution

As depicted in Exhibit 6 below, the components above will be made available on the TUFFS infrastructure.

1. The primary TUFFS internet and intranet applications will reside on an application server connected to a database server.
2. Carriers will use the TUFFS public web portal to log in and report MTS surcharges and fees. Carriers will use the Citibank ACH web portal to remit MTS surcharges and fees.
3. CPUC staff will use the TUFFS internal module to manage carrier surcharge and fee reporting. Carriers using the public web portal and CPUC staff using the internal module will be required to authenticate using user names and passwords to access the system.



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- The Board of Equalization will report the MTS amounts collected for indirect retails sales to the CPUC on a quarterly basis. The network connectivity and method for this transfer will be determined during implementation. Potential methods include secure File Transfer Protocol (FTP) and web services using a Virtual Private Network (VPN) connection.

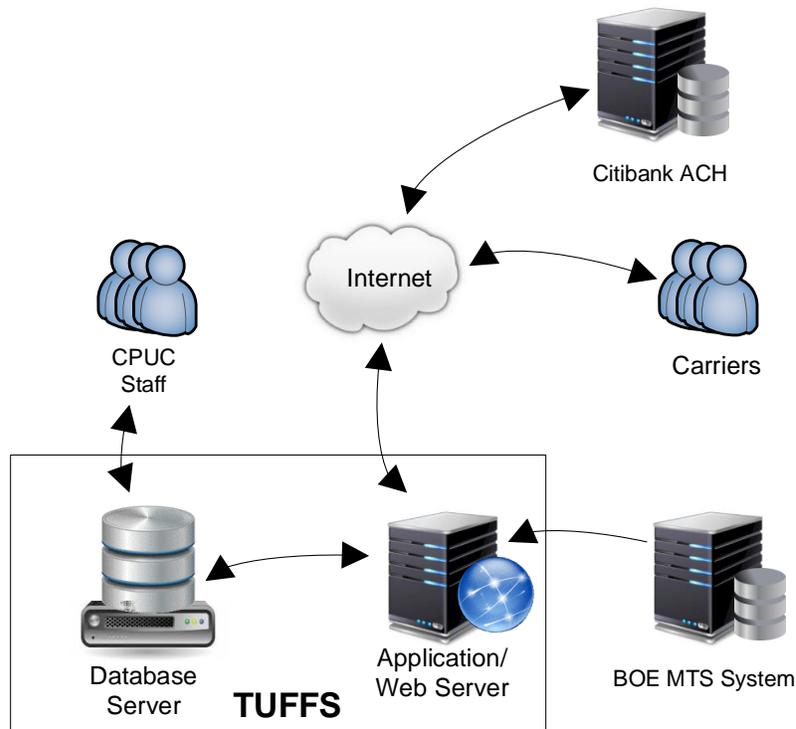


Exhibit 6. Infrastructure Diagram of Proposed Solution

The proposed software architecture is an application with three tiers: user interface (presentation), business logic (application), and data. The user interface tier contains all the logic necessary to interact with the user. The business logic tier encapsulates the business rules and workflow necessary to implement the application. The data access tier encapsulates access to the TUFFS database.

The following sections have been completed in accordance with the SIMM FSR Guidelines.

5.1.1 Hardware

The enhanced TUFFS will continue to be housed at the CPUC’s data center with no change to the infrastructure as described in Section 4.2.1 *Existing Infrastructure* with the possible exception of a connection to the BOE. CPUC is responsible for the procurement, installation, provisioning, and maintenance of server hardware. The maintenance of the server hardware; operating system software upgrades and



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

maintenance; operating system security administration; and backup and recovery will be performed by CPUC IT staff.

5.1.2 Software

Exhibit 7 lists the business functional requirements required to meet the objectives and problems identified by the S1BA in Appendix A for the Prepaid Mobile Telephony Service Surcharge Collection Project. Note that the MTS surcharge includes all prepaid wireless taxes and fees as identified in the legislation.

Solution Requirements
Carrier Profile
<ol style="list-style-type: none"> 1. Provide the capability for prepaid wireless carriers to create and maintain a profile containing identification information such as name, address and contact information
Reporting Telephony Revenue to CPUC
<p>All Revenue Types</p> <ol style="list-style-type: none"> 1. Provide the capability for carriers to select the type intrastate telecommunications revenue being reported <ol style="list-style-type: none"> a. All revenue except for Prepaid Wireless Telephony Revenue b. Direct Prepaid Wireless Telephony Revenue c. Indirect Prepaid Wireless Telephony Revenue <p>Telephony Revenue</p> <ol style="list-style-type: none"> 1. Use existing functionality in TUFFS <p>Direct Prepaid Wireless Telephony Revenue</p> <ol style="list-style-type: none"> 1. Provide the capability for carriers to separately report direct prepaid wireless telephony revenue for the current quarterly reporting period or a previous quarterly reporting period 2. Provide the capability to calculate and display the MTS surcharge based on reported revenue 3. Provide the capability for carriers to identify an adjustment to the calculated MTS surcharge 4. Provide the capability to calculate and display a penalty amount based on the late payment policy 5. Provide the capability to calculate and display the total remittance amount including penalties and unpaid MTS surcharge amounts 6. Provide the capability to calculate and display individual surcharges and the User Fee based on the MTS surcharge amount 7. Provide the capability to display a surcharge transmittal form containing the MTS surcharge to be remitted by the carrier 8. Provide the capability for carriers to request an adjustment to the previously reported MTS surcharge



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

9. Provide the capability for the Fiscal Office to approve or deny requests for adjustments

Indirect Prepaid Telephony Revenue

1. Provide the capability to receive a file from the BOE with CPUC fees collected as part of the MTS surcharge and remitted by retailers for the current reporting period
2. Provide the capability to calculate and display individual surcharges and the User Fee based on the MTS surcharge amount
3. Provide the capability for carriers to report wholesale prepaid telephony revenue for the current reporting period or a previous reporting period

Remitting Surcharges

1. Provide the capability for carriers to launch a payment service to remit monies for the MTS surcharge
2. Provide the capability to transmit the carrier surcharge amounts to the ACH payment service

Reports

The following reports are required by the CPUC to assist with administration of the MTS surcharge

1. Provide an Indirect MTS Revenue Comparison Report
 - a. For the reporting period specified, display a list of all indirect prepaid carriers showing the retail amount reported by BOE, the wholesale amount reported by the carrier, and the difference between the two.
2. Provide the capability to create an Excel compatible file of information selected from the database.
3. Provide the capability to create ad-hoc reports from information selected from the database.
4. Provide a Carrier Information Report
 - a. Allow selection of a carrier from a list of carriers or by searching for a carrier by name
 - b. Display identification and contact information for a selected carrier
5. Provide a Billing Surcharge Detail Report
 - a. Allow selection of a carrier from a list of carriers or by searching for a carrier by name
 - b. Display a list of the surcharge reporting and transactions submitted by a selected carrier
 - c. Display reported revenue, calculated surcharges, adjustments, and penalty interest for a selected carrier and reporting period
6. Provide a Manual Adjustment Report
 - a. Allow selection of a carrier from a list of carriers or by searching for a carrier by name
 - b. Display adjustment information for the selected carrier by reporting period



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<ol style="list-style-type: none">7. Provide an Outstanding Balance Report<ol style="list-style-type: none">a. Allow selection of a carrier from a list of carriers or by searching on carrier nameb. Display a list of surcharge reporting and payments submitted by the selected carrierc. Display reported revenue and calculated surcharges, adjustments, penalty interest, remittance variance, and days late for the selected carrier and reporting period8. Provide a Carrier Payment Report<ol style="list-style-type: none">a. Allow selection of a carrier from a list of carriers or by searching for a carrier by nameb. Display the total payments made for each individual surcharge for the time period selected.9. Provide a Reported vs. Payment Report<ol style="list-style-type: none">a. Allow selection of a carrier from a list of carriers or by searching for a carrier by nameb. Display total payments made for each individual surcharge for the time period selected
Administration
<ol style="list-style-type: none">1. Provide the capability to create, modify, and remove user ids and passwords for carriers and internal CPUC users2. Provide the capability to modify the rates for the MTS surcharge and for individual surcharges for a specified timeframe3. Provide a web-based help and training feature that will provide step-by-step assistance through the use of guides and recorded webinars

Exhibit 7. MTS Business Requirements

The system software platform for the MTS will continue to be based on Oracle components as described in section 4.2.1 *Existing Infrastructure*.

5.1.3 Technical Platform

MTS will continue to utilize the technical platform architecture described in Section 4.2.1 *Existing Infrastructure*.

5.1.4 Development Approach

MOTS COTS Custom Development 100% Others

TUFFS will be leveraged to meet the requirements described in section 5.1.2 *Software*. As described in Section 6.2.1 *Project Phasing*, MTS will be implemented in three phases to mitigate risk by providing incremental elaboration of the solution: Phase 1) MTS surcharges and fees Reporting and Remittance, Phase 2) Pre-defined MTS surcharges and fees Reports, and Phase 3) Ad hoc Reporting Capability.



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As identified in Section 6 *Project Plan*, the CPUC Project Manager will be responsible for approving and directing all phases of the project and will be responsible for leading the following implementation activities.

Plan and Design

- Develop detailed requirements
- Design the solution based on the detailed requirements
- Develop and maintain requirements traceability matrix
- Conduct functional business and technical walkthroughs
- Confirm the deployment strategy
- Finalize business process change management strategies

Software Development

- Develop custom software components to meet requirements and implement business rules
- Design and develop testing strategies and test scenarios
- Design and develop business process change management activities necessary to successfully deploy the phased and final solution

Implementation

- Define the user acceptance criteria and testing process
- Train CPUC staff
- Support organizational change management activities for internal and external stakeholders
- Provide technical knowledge transfer to CPUC technical staff from contracted resources
- Deploy the new business application into the CPUC's production environment

5.1.5 Integration Issues

The MTS surcharge collection system will be integrated with the existing TUFFS functionalities (e.g., the authorization and security portal) and will share and/or update the TUFFS existing database. Additionally, the MTS surcharge collection system may interface with the BOE MTS system as described in Section 5.1.7 - *Technical Interfaces*.

5.1.6 Procurement Approach

Proposed Vendor Procurement Vehicles:

IFB RFI CMAS MSA IFB RFO RFP Others None

Proposed Vendor Contract Type:

Fixed Price Time and Materials Percentage of Benefit Other



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There will be four contracts required for the implementation of MTS as identified below in Exhibit 8 *Contracting Table* and Exhibit 9 *Resource Requirements Table*:

1. ITMSA for the resources to perform the modification to TUFFS to accommodate MTS
2. CMAS for the IVV contract
3. CMAS for a contract for an independent Project Manager who will manage the entire MTS system implementation
4. Amendment to an existing Citibank contract with the State Treasurer's Office for modification to electronic payment services (EPS) to accommodate MTS.

The CPUC will adhere to all Department of General Services (DGS) procurement guidelines including compliance with State of California contracting preferences and goals including the certified Small Business preference and certified Disabled Veteran Business Enterprise (DVBE) contracting goal.

Justification for Professional Services Contract

Professional services with highly specialized skills, specific knowledge, and experience in Oracle and APEX web development 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. 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).

Contract Term

The CPUC estimates that the contracted resources will be required for a term of 14 months to develop, test, and deploy MTS. The CPUC will after provide support and maintenance of the system.

Procurement Types

CONTRACT TABLE										
Contract Number	Type of Contract	Awarded?	Award Date	Start Date	End Date	Value	Interagency Acquisition?	Performance based	Competitively awarded?	Alternative financing?
N/A	Software Customization	N	2/9/15	2/9/15	5/27/16	\$ 1,201,200	N	N	ITMSA	N
N/A	IVV	N	2/9/15	2/9/15	5/27/16	\$ 116,160	N	N	CMAS	N
N/A	Project Manager	N	2/9/15	2/9/15	5/27/16	\$ 492,800	N	N	CMAS	N
N/A	Citibank EPS	Y	N/A	4/30/15	2/1/16	\$ 150,000	N	N	Amendment	N

Exhibit 8. Contracting Table

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5.1.7 Technical Interfaces

Internal Interfaces

The Identity Management Layer System (IMLS) provides access security for companies accessing CPUC Web applications such as TUFFS. A company is given access to CPUC web applications only if it is “Active” in IMLS. For TUFFS, the IMLS records are provided by the Utility Contact System (UCS).

External Interfaces

A new interface between TUFFS and the BOE MTS system will be required for the transfer of MTS surcharge reporting and payment data from the BOE to the CPUC. The CPUC will collaborate with the BOE on the design, development, and implementation of the interface. The data will be transmitted quarterly from the BOE to the CPUC.

CPUC will engage with BOE at all stages of the implementation of the BOE MTS system starting with requirements elicitation and continuing through design, development, testing, and deployment.

5.1.8 Accessibility

The new system will be developed in accordance with the State Administrative Manual Section 4833. In addition, the new system 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. The new system will meet accessibility requirements pursuant to Section 508 of the Rehabilitation Act and California Government Code Section 11135.

During the development of project requirements, accessibility specific requirements will also be developed. 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 MTS 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 TUFFS 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

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conducted. The various levels of testing related to the MTS 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 BOE, Carriers, 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 CPUC and contracted resources.

Integration Testing – Integration testing confirms that the MTS solution is built to meet the system requirements and to ensure that separate modules function correctly when used together. This testing will be performed by CPUC 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

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 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:

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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 MTS. 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 MTS 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, CalTech personnel, contracted resources, and additional positions in the Spring Finance letter. The MTS 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 MTS project are identified in Exhibit 9 – *Resource Requirements Table*.

The new positions, required to meet the AB1717 mandate, as shown in the following Resource Requirements Table, will be detailed in the Budget Change Proposal to be submitted by the end of January 2014. These positions are necessary to develop, design and implement the MTS as well as to provide ongoing support. Tasks will include establishing business processes, requirements, procedures, user testing, rule-making, help desk, etc., to ensure compliance with AB1717 and all related laws and regulations.



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Role	14/15		15/16	
	PY	Cost	PY	Cost
Redirected IT Resources				
Project Manager	0.6	\$61,600	0.9	\$96,800
Business Analyst	0.1	\$12,320	0.2	\$19,360
Application Developer	0.1	\$15,400	0.2	\$24,200
Database Administrator	0.1	\$15,400	0.2	\$24,200
Information Security Officer	0.0	\$1,100	0.0	\$2,420
Total Redirected IT Resources	1.0	\$105,820	1.6	\$166,980
New IT Resources				
Business Analyst	0.0	\$0	0.9	\$77,440
Application Developer	0.0	\$0	0.9	\$96,800
Database Administrator	0.0	\$0	0.9	\$96,800
Total New IT Resources	0.0	\$0	2.8	\$271,040
Redirected Program Resources				
Program Manager	0.6	\$49,280	0.9	\$77,440
Subject Matter Experts	0.3	\$24,640	0.8	\$63,360
Total Redirected IT Resources	0.9	\$73,920	1.7	\$140,800
New AB1717 Program Resources				
Regulatory Analyst V	0.0	\$0	0.9	\$63,987
Regulatory Analyst III	0.0	\$0	0.9	\$72,204
Financial Examiner	0.0	\$0	0.9	\$36,256
Accountant	0.0	\$0	0.9	\$96,470
Public Utilities Counsel	0.0	\$0	0.9	\$65,769
Total New AB1717 Program Resources	0.0	\$0	4.6	\$334,686
Contracted Resources				
Business Analyst	0.4	\$154,000	0.3	\$92,400
Application Developer	0.8	\$325,600	0.8	\$293,040
Database Administrator	0.1	\$32,560	0.0	\$0
Technical Writer	0.0	\$0	0.3	\$79,200
Test Manager	0.0	\$0	0.7	\$224,400
Project Manager	0.4	\$154,000	0.9	\$338,800
IVV	0.1	\$36,300	0.2	\$79,860
CalTech Project Oversight	0.5	\$56,280	1.0	\$112,560
Total Contracted Resources	2.4	\$758,740	4.1	\$1,220,260
Several of the above PY totals do not total correctly due to rounding				

Exhibit 9. Resource Requirements Table

5.1.11 Training Plan

The contracted Technical Writer will be responsible for developing the training plan, developing training materials, and user guides. The contracted Business Analyst will be responsible for conducting in-house training. The implementation of the MTS will require training of the CPUC business staff who will use the new system, CPUC technical staff who will support the system, and carrier staff who will be using the system to report and remit the MTS surcharge.



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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, webinars, and hands-on-observation/participation. CPUC staff will continue training following closure of the project.

The web-based front-end of the TUFFS application used by carriers will include a help and training feature that will provide external users of TUFFS with step-by-step assistance through the use of guides and recorded webinars. This feature will facilitate the use of the application without the need for in-depth training sessions. All necessary documentation for external end-users to be able to effectively utilize the application will be available online through links provided by the application.

5.1.12 On-going Support and Maintenance

CPUC IT staff will be responsible for supporting and maintaining the new system. Three 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 to the system from staff, carriers, and the BOE
 - Develop requirements for the proposed changes
 - Design and develop the proposed changes
 - Test changes
 - Provide information and training on new functionality to program staff
- Provide database administration
- Provide infrastructure support

The CPUC IT staff will manage all production infrastructure hardware maintenance, backup and restoration activities.

5.1.13 Information Security

The approach for information security will be consistent with the State Administrative Manual 5300. The detailed security requirements for MTS will be developed during requirements elicitation 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 TUFFS application software and database system software, and data assets such as documents and application data.

The MTS 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 TUFFS data, security is enforced at the



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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 TUFFS application resources and functions.
- All sensitive data must be encrypted and stored in the TUFFS.
- 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 Secure Sockets Layer.
- As sensitive, confidential, and personally identifiable information will be stored in the database, 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 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 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

The most significant time-related impacts on staff will be learning to use the new system and changing existing business processes to accommodate the new requirements Of AB 1717. External users of the system will be similarly impacted. Carriers will use the system to report and remit MTS surcharges and fees, which will be different than the currently used methods (proper communication will be necessary to minimize impact).

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Providing training for external users is problematic because of the number and geographic diversity of users. Self-help, webinar-based training and tutorials, and telephone assistance will be provided to external users.

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

- Establish executive ownership of the 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
- Support implementation of business processes

The MTS 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

The current Oracle based TUFFS will be enhanced to meet the requirements described in Section 5.1.2 *Software*. A separate module with functionality similar to that described in 4.1 *Current Method* will be developed to implement the MTS surcharge reporting and remittance capability.

5.1.17 Consistency with Overall Strategies

The proposed MTS solution will be compatible and consistent with the overall technology standards and direction of the California Department of Technology. The MTS 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 solutions.

Strategic Goal 4 - Information as an Asset

Objective 4.1 - Protect sensitive and confidential data through implementation of strong security and privacy standards and practices.

CPUC Goal: The proposed MTS solution is also consistent with the CPUC mission to ensure that Californians receive safe, reliable utility service and infrastructure at



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reasonable rates, with a commitment to environmental enhancement and a healthy California economy.

5.1.18 Impact on Current Infrastructure

No modifications to the CPUC infrastructure is expected to be necessary to support the MTS surcharge enhancements to TUFFS.

5.1.19 Impact on Data Center

There are no anticipated impacts to the CPUC data center.

5.1.20 System Hosting/ Data Center Consolidation

OTech Managed Services OTech Federated Data Center Agency/Department

Outsourced/Other _____

The MTS system will be housed by the CPUC data center and will be operated and maintained by the CPUC data center personnel. Planning is underway to utilize the Tenant Managed Services offered by the Department of Technology. However, the infrastructure will not be deployed at the Department of Technology data center in time for the implementation of this project.

A cloud hosting solution was rejected due to the time constraints imposed by the mandated legislation to have an operational system in place by 1/1/16. The most expedient hosting solution is to deploy the TUFFS modifications utilizing the current TUFFS infrastructure.

5.1.21 Backup and Operational Recovery

The CPUC data center will provide backup and operational recovery services to protect the data and documents stored in TUFFS.

5.1.22 Public Access

TUFFS will be used by carriers to report and remit the MTS surcharge as it is used today by carriers to report and remit surcharges. TUFFS has been designed to allow appropriate levels of application and data access based on user roles. This allows access by carriers to be controlled through user authentication and authorization. The same authentication functionality currently used in TUFFS will continue to be used by carriers.

TUFFS 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.

There will be no unauthenticated public access to TUFFS.



5.2 Rationale for Selection

The proposed solution is the most complete solution that meets AB1717 requirements 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:

Ability to meet business requirements and objectives - The proposed solution meets all of the objectives identified in the S1BA in Appendix A and the business requirements identified in Section 5.1.2 *Software*.

Resource Utilization - The proposed solution is the most consistent with the availability of program and information technology staffing resources at the CPUC.

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 is deemed most likely to be successfully developed and implemented in the mandated timeframe.

Level of Risk - The proposed solution poses the lowest level of risk in that it leverages the existing TUFFS system that has been deployed and operational for several years.

Advantages	Disadvantages
<ul style="list-style-type: none"> • Utilizes in-house resources having experience with TUFFS • Shortest duration using contracted resources • Less expensive to modify TUFFS than to construct a new application 	<ul style="list-style-type: none"> • More expensive than use of only in-house resources due to costs of contracted resources

Exhibit 10. Advantages and Disadvantages of Proposed Solution

5.3 Other Alternatives Considered

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

- Implement manual processes to administer the new surcharges. This alternative was rejected without further analysis because extensive staff resources that would be required to facilitate a manual process.
- Purchase and implement a payment system COTS solution. This alternative was rejected without further analysis because of insufficient timeframe to identify requirements, conduct an RFI, and procure and implement a COTS product that sufficiently meets all the requirements. However, CPUC submitted an S1BA in



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October 2014 for an online payment solution. A COTS product is likely to be a consideration as a solution for the long term online payment solution.

- Enhance TUFFS using in-house resources only. This alternative was rejected without further analysis because CPUC does not possess sufficient technical resources to implement AB1717.

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

5.3.1 Alternative 1 (rejected) – New Payment System Using Contracted and In-house Resources

Alternative Description: This alternative is similar to the proposed MTS solution but rather than modifying TUFFS it proposes to meet the requirements of AB1717, with a new free standing solution custom developed to meet the requirements as specified by the CPUC.

Advantages	Disadvantages
<ul style="list-style-type: none">• Requires limited integration with TUFFS	<ul style="list-style-type: none">• Longest duration due to increased effort• Higher cost• Requires authentication separate from TUFFS

Exhibit 11. Advantages and Disadvantages of Alternative 1

Recommendation

This alternative is not recommended.



6.0 Project Management Plan

The CPUC recognizes the importance of using industry best practices for managing the MTS 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 and the best practices identified in the Project Management Institute's *Project Management Body of Knowledge*.

The following project planning information will be elaborated in the MTS 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 MTS 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. Note that although there is overlap of the three phases, the development effort for the three phases does not overlap. For example, development of phase 2 will begin when phase 1 UAT is being conducted.

Contracted Resources Procurement

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

- Develop Request for Offer (RFO) documentation using an RFO from a recently completed procurement for contracted resources.
- Conduct vendor solicitation and proposal evaluation.
- Award and execute the contract.
- Develop a contract management plan.

Requirements and Design

The combined CPUC and vendor project team will be responsible for the following planning and design activities:

- Develop an understanding of the current business operations and the impact on operations from the implementation of AB1717.
- Conduct requirements elicitation sessions with program staff to develop the detailed software development requirements to support the business processes necessary to implement AB1717.
- Obtain approval of requirements and design specifications.
- Conduct business and technical joint application design (JAD) sessions to develop the functional and technical MTS solution. .
- Develop application, data, and implementation strategies to minimize the impact on business operations.
- Design business process change management strategies, and develop contingency plans to ensure business processes are not adversely impacted.

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- Develop and maintain requirement traceability matrices.
- Develop and confirm the functional rollout strategy.
- Develop and confirm business process change management strategies.
- Develop and confirm database architecture.
- Design and develop testing strategies and test scenarios.

Design and Development

The project team will perform the following development activities:

- Develop the MTS custom application components and interfaces based on the TUFFS requirements and design previously developed.
- Design and develop training modules and manuals.
- Design and develop 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:

- Work with CPUC staff to define the user acceptance criteria and testing process.
- Conduct training for CPUC staff and carriers
- Support organizational change management activities for internal and external stakeholders.
- Provide technical knowledge transfer to CPUC IT staff and the new CPUC M&O team (Spring Finance Letter positions).
- Deploy the new business application into the production environment.

6.1 Project Organization

The MTS Project Organization Chart as depicted in Exhibit 12 identifies the project roles for the MTS Project. Each role does not correspond to a full-time equivalent position in the CPUC. See Section 5.1.10 *Resource Requirements* for a listing of project resources required for the project.



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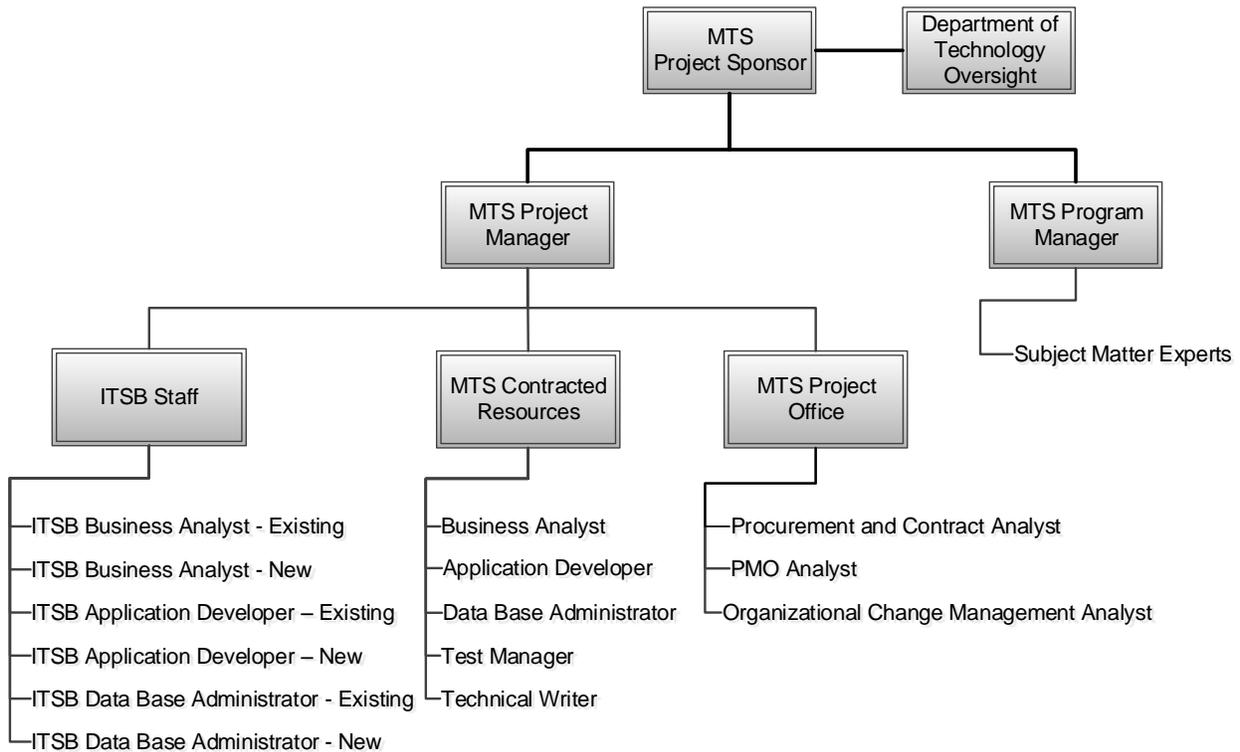


Exhibit 12. MTS Project Organization

Project Manager Qualifications

The MTS Project Manager will 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.

Project Roles and Responsibilities

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 project is adequately funded
- ✓ Ensures timely availability of needed resources
- ✓ Ensures sustained buy-in at all levels
- ✓ Approves the Project Charter, Project Management Plan and significant changes in scope, cost or schedule
- ✓ Empowers the Project Manager with the appropriate authority

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- ✓ Ensures an appropriately skilled Project Manager is selected for the project
- ✓ 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
- ✓ Highest level of escalation for issues/decisions

Program Manager

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

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, risk, 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

Department of Technology Project Oversight

- ✓ Evaluates the project to ensure that it is following a structured and defined approach



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- ✓ 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

Technical Project Team Members

- ✓ Responsible and accountable for assigned tasks and deliverables
- ✓ Responsible for providing estimates, status reports and project updates to the Project Manager
- ✓ Responsible for keeping the Project Manager and Program Manager informed of all issues and decisions that may affect the project implementation
- ✓ Participates in the design
- ✓ Responsible for the design, development, and implementation 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

PMO Analyst

- ✓ Leads the effort to identify, document, manage and track risks and risk mitigations and contingencies on the project, leading risk identification sessions, and ensuring regular review
- ✓ Monitors risk management efforts to ensure they do not adversely impact the project
- ✓ Maintains the project risk log
- ✓ Modifies the risk management plan to include agreed actions to avoid or reduce the impact of risks
- ✓ Oversees and coordinates the change request process
- ✓ Develops and maintains the change request log
- ✓ Produces regular change management reports
- ✓ Acts as the Project Librarian managing project 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

Procurement and Contract Analyst

- ✓ Oversees and manages the procurement process
- ✓ Ensures consistency and continuity throughout the entire procurement process and conformity to procurement standards, rules and regulations



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- ✓ 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

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
- ✓ Primary responsibility for establishing business requirements
- ✓ Participates in the user acceptance testing 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 identified to be in scope for this project
- ✓ Participates in the User Acceptance testing of the system interfaces to ensure they meet the business requirements and successfully support the business need

Department Organization

Exhibits 13-16 below depicts the CPUC's organizational structure. The Communications Division, Budget and Fiscal Services Branch, and Information Technology Branch, will share responsibility for the successful implementation of the MTS solution.



California Public Utilities Commission

October 1, 2014

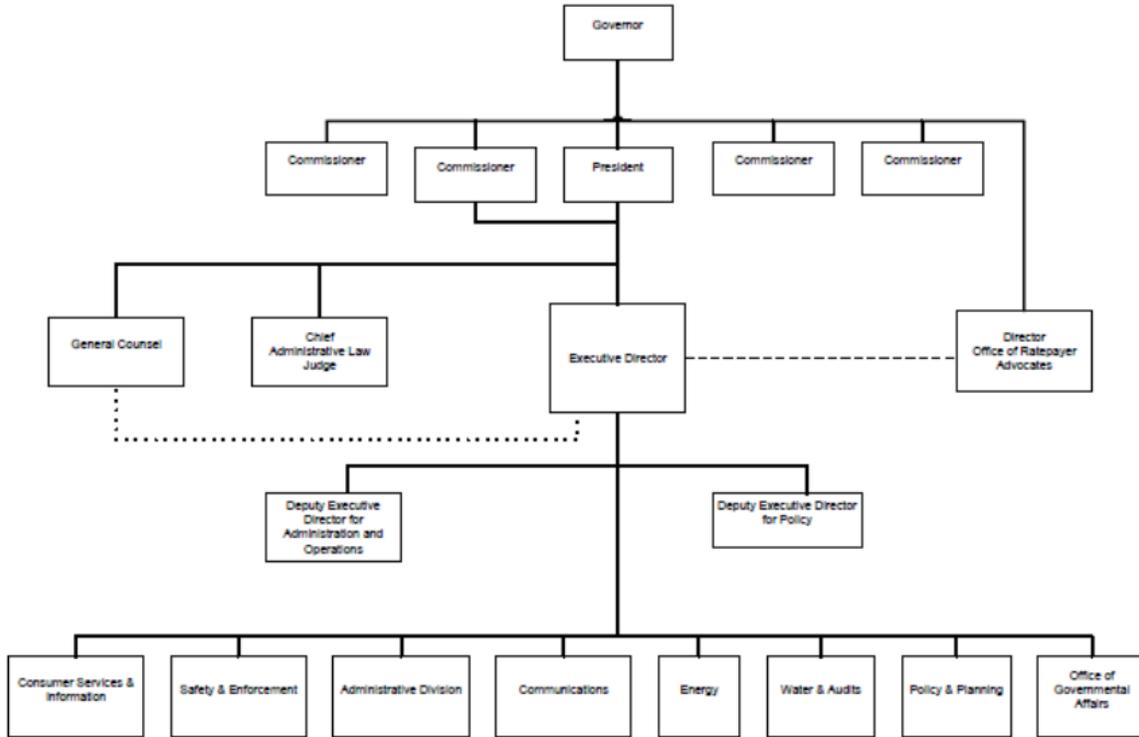
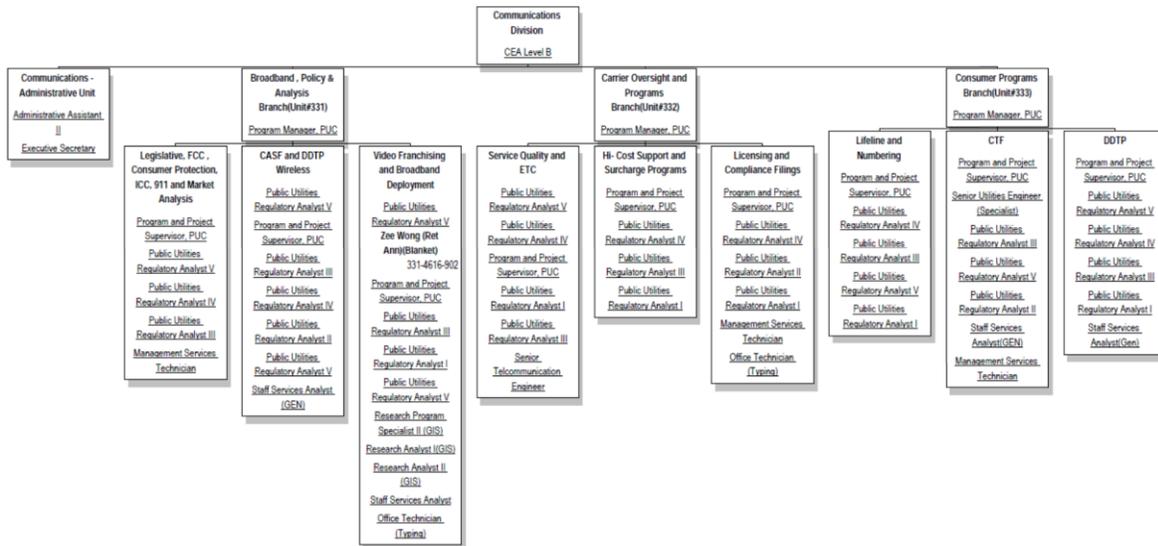


Exhibit 13. CPUC Organization Chart

Communications Division (July 1, 2014)





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Exhibit 14. Communications Division

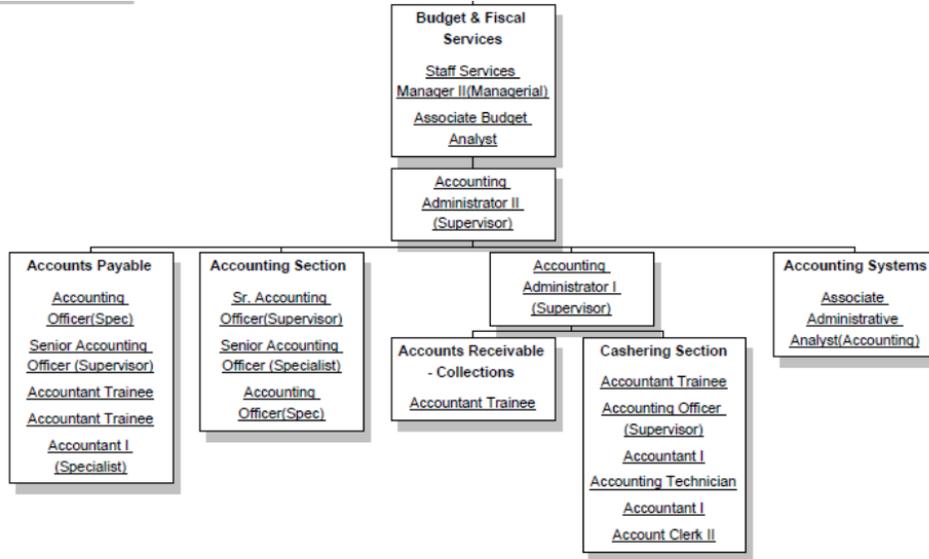


Exhibit 15. Budget and Fiscal Services Branch

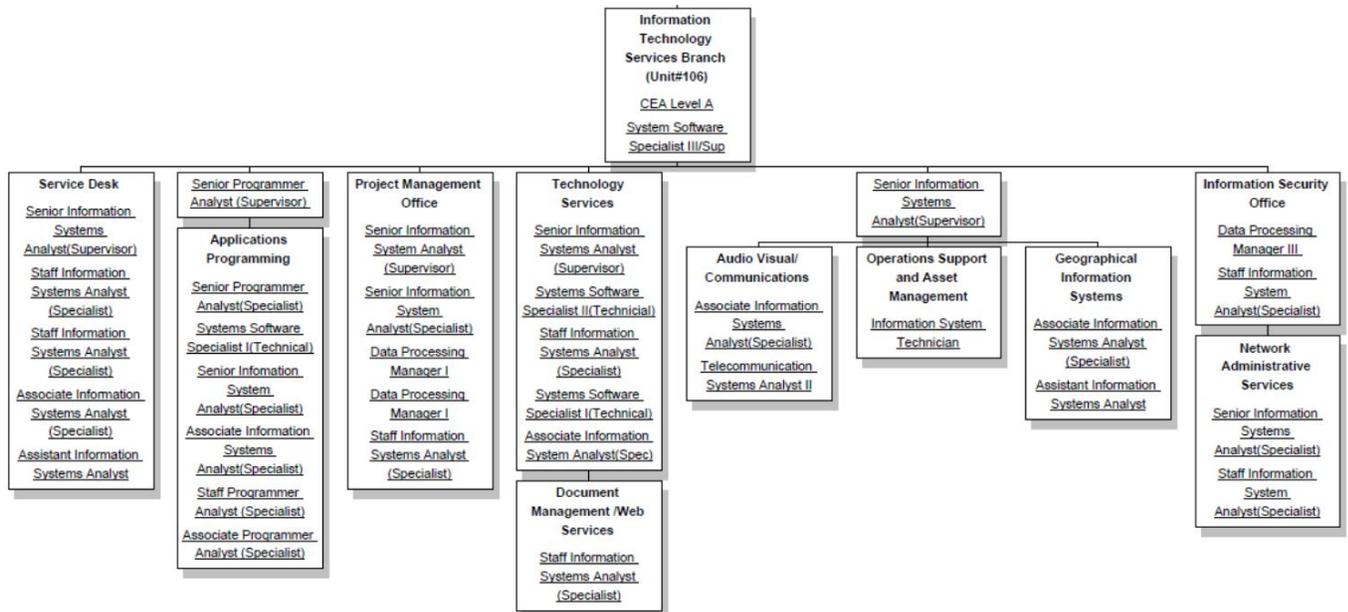


Exhibit 16. CPUC Information Technology Services Branch



6.2 Project Plan

6.2.1 Project Phasing

The MTS Project will be implemented in three phases:

Phase 1 - *MTS Surcharges and Fees Reporting and Remittance*: Implementation of changes to TUFFS for the core functionality to allow carriers to report and remit MTS surcharges and fees from direct sales. Includes the interface with the BOE to allow the reporting of the MTS surcharge for indirect retail sales

- An internet portal for carriers to report the MTS surcharge portion due the CPUC (user fees and public purpose surcharges) from direct sales, similar to the one currently used for TUFFS.
- Interface with BOE to receive a file of the MTS surcharge amounts due the CPUC from indirect mobile telephony sales.
- Modifications to TUFFS to support CPUC back-office processes

Phase 2 – *Pre-Defined MTS Surcharges and Fees Reports*: The implementation of core pre-defined reports using data from the modified TUFFS database.

Phase 3 - *Ad hoc Reporting Capability*: The implementation of an ad-hoc reporting capability to allow the CPUC to create reports that combines data from the modified TUFFS database. Includes the capability to create an Excel compatible file of information selected from the modified TUFFS database.

6.2.2 Project Schedule

The MTS Project will be managed with the following scheduled milestones. A detailed project schedule will be developed during project initiation. The schedule and dates in Exhibit 17 are for planning purposes only.

The following project management plans will be developed and utilized to manage the project:

- Communications Plan
- Governance Management Plan
- Requirements Management Plan
- Procurement Management Plan
- Contract Management Plan
- Issue Management Plan
- Risk Management Plan
- Schedule Management Plan
- Scope Management Plan
- Cost Management Plan
- Resource Management Plan
- Quality Management Plan



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- Configuration Management Plan
- Change Management Plan

6.2.3 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



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ID	Task Name	Start	Finish
1	MTS Project Schedule	12/1/14	7/13/17
2	Contracted Resources Procurement	12/1/14	2/20/15
3	RFO Development	12/1/14	12/30/14
4	Develop RFO	12/1/14	12/19/14
5	Perform RFO approvals	12/22/14	12/30/14
6	<i>RFO Development complete</i>	<i>12/30/14</i>	<i>12/30/14</i>
7	Contracted Resources Solicitation	1/5/15	2/2/15
8	Review RFO (bidders)	1/5/15	1/30/15
9	Proposal due	2/2/15	2/2/15
10	<i>Contracted Resources Solicitation Complete</i>	<i>2/2/15</i>	<i>2/2/15</i>
11	Proposal Evaluation	2/3/15	2/20/15
12	Perform proposal evaluation & vendor interviews	2/3/15	2/11/15
13	Review, negotiate, and perform contract award and execution	2/12/15	2/20/15
14	<i>Proposal evaluation complete</i>	<i>2/20/15</i>	<i>2/20/15</i>
15	<i>Contracted Resources Procurement Complete</i>	<i>2/20/15</i>	<i>2/20/15</i>
16	Project Initiation	1/5/15	3/10/15
17	Develop Project Charter	1/5/15	1/9/15
18	Develop Master Project Plan	1/12/15	1/23/15
19	Develop Project Management Plans	1/12/15	3/10/15
20	Requirements	2/23/15	4/3/15
21	Project Kickoff Meeting	2/23/15	2/23/15
22	Develop Requirements	2/24/15	3/23/15
23	Approve Requirements	3/2/15	4/3/15
24	<i>Requirements Complete</i>	<i>4/3/15</i>	<i>4/3/15</i>
25	System Planning and Design	2/23/15	7/3/15
26	Develop Detailed Design	4/6/15	7/3/15
27	JAD - Carrier MTS Surcharge Reporting	4/6/15	4/17/15
28	JAD - BOE MTS surcharge reporting	4/20/15	5/1/15
29	JAD - MTS surcharge reports	5/4/15	5/15/15
30	JAD - TUFFS ad-hoc reports	5/18/15	5/29/15
31	Document design	4/20/15	6/12/15
32	Conduct design approval	6/15/15	7/3/15
33	<i>Detailed design complete</i>	<i>7/3/15</i>	<i>7/3/15</i>
34	Develop Organizational Change Management Plan	2/23/15	4/17/15
35	Develop Testing Plan	2/23/15	4/17/15
36	Develop Training Plan	2/23/15	4/17/15
37	Develop Transition Plan	2/23/15	4/17/15
38	<i>System Planning and Design Complete</i>	<i>4/17/15</i>	<i>4/17/15</i>
39	Phase 1 - MTS Surcharge Reporting and Remittance	7/1/15	1/8/16
40	Target date for new PYS	7/1/15	7/1/15
41	Conduct design walkthrough	7/6/15	7/7/15
42	Software Development	7/8/15	9/29/15
43	Systems Testing	9/30/15	10/27/15
44	User Acceptance Testing	10/28/15	12/8/15
45	Transition and M&O Planning	7/8/15	8/4/15
46	Develop User Guides and Training Materials	9/30/15	10/27/15
47	User Training	12/7/15	1/1/16
48	<i>Phase 1 Go-Live</i>	<i>1/1/16</i>	<i>1/1/16</i>
49	Phase 1 Acceptance	1/4/16	1/8/16
50	Phase 2 - Pre-Defined MTS Surcharge Reports	10/2/15	2/26/16
51	Software Development	10/2/15	12/24/15
52	System Testing	12/25/15	1/21/16
53	User Acceptance Testing	1/22/16	2/18/16
54	Transition and M&O Planning	12/25/15	1/21/16
55	Develop Manuals and Training Materials	12/25/15	1/21/16
56	User Training	1/22/16	2/18/16
57	<i>Phase 2 Go-Live</i>	<i>2/19/16</i>	<i>2/19/16</i>
58	Phase 2 Acceptance	2/22/16	2/26/16
59	Phase 3 - TUFFS Ad-hoc Reporting Capability	1/8/16	4/29/16
60	Software Development	1/8/16	2/18/16
61	System Testing	2/19/16	3/10/16
62	User Acceptance Testing	3/11/16	3/31/16
63	Transition and M&O Planning	2/19/16	3/17/16
64	Develop Manuals and Training Materials	2/19/16	3/17/16
65	User Training	4/1/16	4/28/16
66	<i>Phase 3 Go-Live</i>	<i>4/29/16</i>	<i>4/29/16</i>
67	<i>Project End</i>	<i>5/27/16</i>	<i>5/27/16</i>
68	Post Implementation Evaluation	5/1/17	7/13/17
69	<i>Project Complete</i>	<i>7/13/17</i>	<i>7/13/17</i>

Exhibit 17. Project Schedule



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

7.0 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).

#	Risks	Probability (1 - 5)	Potential Impact (1 - 5)	Risk Management Action must begin...	Risk Level (1 - 25)	Cause	Consequences	Mitigation Plan
1	If the project team is unable to implement within project timeline	4	5	Over a year from now	20	Mandated timeline with tight schedule	Scope decrease, decrease in project staff	Reduce scope if project budget is reduced.
2	If the vendor RFO is not released by the end of December	3	5	Within the next six months	15	FSR is not approved	Project delays	Coordinate approval of FSR
3	If BOE's timeline for implementation is not in alignment with the CPUC timeline for implementation.	3	4	Six months to a year from now	12	Differing project schedules	Project delays	Coordinate project schedule with BOE
4	If there is a lack of project management resources	3	4	Within the next six months	12	Project staff do not have project management training or experience	Project delays, project deliverables do not meet project objectives	Obtain additional project management services resources (state or contracted resources).
5	If there is a decrease in required project funding	3	4	Six months to a year from now	12	Scope not achievable, missing requirements, unclear requirements	Project scope not delivered, project delays	Project Manager continuously tracks project progress against deliverables and schedule. The Project Manager meets frequently with the Program Manager to identify issues and expedite resolution. Effectively manage change control process. Adjust schedule as necessary.
6	If stakeholders have differing objectives and requirements	3	4	Within the next six months	12	Different approaches to meeting CPUC's mission.	Project delays and/or scope creep	Establish communication and governance processes to arbitrate varying desires and needs.
7	If there is a change in scope	3	4	Over a year from now	12	Business processes are refined, priorities are changed	Change in schedule, change in budget	Clearly define business objectives and functional requirements. Maintain involvement of stakeholders in requirements development early and often throughout the project life cycle. As much as possible, use the same SMEs for the entire project starting with development of the FSR through implementation to help ensure consistent requirements. Establish system functionality governance to identify final arbiter of requirements to help ensure consistent requirements. Implement an Organizational Change Management Plan at the beginning of the project. Follow a defined change management process.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

#	Risks	Probability (1 - 5)	Potential Impact (1 - 5)	Risk Management Action must begin...	Risk Level (1 - 25)	Cause	Consequences	Mitigation Plan
8	If knowledgeable subject matter experts (SME) do not have sufficient time to participate in project activities	2	5	Within the next six months	10	Operational priorities, insufficient staff	Requirements not identified, design not complete, testing not complete	Utilize Project Sponsor to obtain firm commitment for allocation of state resources. Extend schedule to account for lack of resources.
9	If any regulatory process in motion will cause problems or delays to the project.	2	5	Six months to a year from now	10	Change in regulations	Change in business processes, change in scope, rework, project delays	Implement a governance and change management process with involvement from appropriate stakeholders.
10	If stakeholder expectations are not met	2	5	Within the next six months	10	Business processes not defined, lack of involvement of stakeholders in requirements, lack of expertise in requirements elicitation	Procurement is delayed. System does not meet needs, rework, schedule delays.	Obtain services of requirements analyst (state or contracted resource) to develop use cases and well defined requirements.
11	If the requirements are incomplete or unclear	2	5	Six months to a year from now	10	Changing requirements due to changing business processes	Rework, project delays	Implement a governance and change management process with involvement from appropriate stakeholders.
12	If the collection and management of the project's requirements will cause problems or delays.	2	5	Within the next six months	10	Reassignment, move to other department, retirement	Delay in completion of project activities, change in project scope or requirements	Establish backups for key roles with active project participation.
13	If development resources are utilized more than expected during UAT	2	5	Within the next six months	10	High number of defects	Delay in development of subsequent phase deliverables	Allow sufficient time for defect correction.
14	If the design and/or implementation challenges of this project will cause problems or delays.	2	5	Within the next six months	10	Lack of resources	Project objectives not met, stakeholder expectations not met	Obtain additional state or contracted resources.
15	If there are two separate administrative processes for user fee collection.	3	3	Six months to a year from now	9	Program implementation of the legislation requires two processes	Scope increase, rework	Facilitate program decisions that impact system requirements early.
16	If there is poor user interface design	2	4	Within the next six months	8	Lack of stakeholder engagement, lack of communication	Low acceptability of the system, rework	Implement an Organizational Change Management Plan at the beginning of the project to ensure that stakeholders participate in requirements, design, and testing of the new system; and that they are apprised of project status, objectives, and requirements throughout the project life cycle.
17	If a key project team member is no longer on the project.	2	4	Six months to a year from now	8	Staff do not have the expertise and experience to perform project activities	Project deliverables lack quality, project delays, rework	Procure professional services to augment state staff with required capabilities. Provide training and mentoring for state staff.
18	If there is a lack of effectiveness of the governance process	2	4	Within the next six months	8	Processes are not followed, lack of participation	Rework, project delays	Establish clear roles, responsibilities, and processes through the Project Charter and the Project Governance Management Plan. Gain commitment from the Executive Sponsor and Program Manager Sponsor for adherence to those roles and responsibilities. Utilize the Project Steering Committee as a decision-making body if governance process is ineffective.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

8.0 Economic Analysis Worksheets

SIMM 20C, Rev. 06/2014

EXISTING SYSTEM/BASELINE COST WORKSHEET

Agency/state entity: Public Utilities Commission

to be shown in whole (unrounded) Date Prepared: 1/16/2015

Project: Prepaid Mobile Telephony Service Surcharge Collection (MTS)

	FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
Continuing Information								
Technology Costs								
Staff (salaries & benefits)	0.5	52,800	0.5	52,800	0.5	52,800	1.5	158,400
Hardware Lease/Maintenance		0		0		0		0
Software Maintenance/Licenses		50,000		50,000		50,000		150,000
Contract Services		0		0		0		0
Data Center Services		24,444		24,444		24,444		73,332
Agency Facilities		675		675		675		2,025
Other		0		0		0		0
Total IT Costs	0.5	127,919	0.5	127,919	0.5	127,919	1.5	383,757
Continuing Program Costs:								
Staff	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Other		0		0		0		0
Total Program Costs	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
TOTAL EXISTING SYSTEM COSTS	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

SIMM 20C, Rev. 06/2014

PROPOSED ALTERNATIVE Leverage TUFFS

Date Prepared: 1/16/2015

Agency/state entity: Public Utilities Commission

All Costs Should be shown in whole (unrounded)

Project: Prepaid Mobile Telephony Service Surcharge Collection (MTS)

	FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs								
Staff (Salaries & Benefits)	1.9	179,740	6.0	578,820		0	7.9	758,560
Program Staff (Salaries & Benefits) (3)	0.0	0	4.6	334,686		0	4.6	334,686
Hardware Purchase (1)		0		40,000		0		40,000
Software Purchase/License		0		0		0		0
Telecommunications		0		0		0		0
Contract Services								
Software Customization		512,160		689,040		0		1,201,200
Project Management		0		0		0		0
Project Oversight (2)		56,280		112,560		0		168,840
IV&V Services		36,300		79,860		0		116,160
Other Contract Services - Project Manager		154,000		338,800		0		492,800
Other Contract Services - Citibank		0		150,000		0		150,000
TOTAL Contract Services		758,740		1,370,260		0		2,129,000
Data Center Services		0		0		0		0
Agency Facilities		0		0		0		0
Other		0		0		0		0
Total One-time IT Costs	1.9	938,480	10.6	2,323,766	0.0	0	12.5	3,262,246
Continuing IT Project Costs								
IT Staff (Salaries & Benefits)	0.0	0	0.3	24,640	3.0	295,680	3.3	320,320
Program Staff (Salaries & Benefits) (3)	0.0	0	0.4	30,426	5.0	542,481	5.4	572,907
Hardware Lease/Maintenance		0		0		0		0
Software Maintenance/Licenses		0		0		0		0
Telecommunications		0		0		0		0
Contract Services		0		0		0		0
Data Center Services		0		0		0		0
Agency Facilities		0		0		0		0
Other		0		0		0		0
Total Continuing IT Costs	0.0	0	0.7	55,066	8.0	838,161	8.7	893,227
Total Project Costs	1.9	938,480	11.3	2,378,832	8.0	838,161	21.2	4,155,473
Continuing Existing Costs								
Information Technology Staff	0.5	52,800	0.5	52,800	0.5	52,800	1.5	158,400
Other IT Costs		75,119		75,119		75,119		225,357
Total Continuing Existing IT Costs	0.5	127,919	0.5	127,919	0.5	127,919	1.5	383,757
Program Staff	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Other Program Costs		0		0		0		0
Total Continuing Existing Program Co	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Total Continuing Existing Costs	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631
TOTAL ALTERNATIVE COSTS	4.7	1,250,357	14.1	2,690,709	10.8	1,150,038	29.6	5,091,104
INCREASED REVENUES		0		0		0		0

(1) Additional hardware to increase capacity of existing data center equipment

(2) FTE Department of Technology oversight resource

(3) These are the program staff required to implement the AB1717 MTS legislation. These staff are not required for and have no relationship to the implementation or continuing operation of the MTS system and are presented here solely to match the program operations resources identified in the MTS BCP as requested by CalTech.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

SIMM 20C, Rev. 06/2014

ALTERNATIVE #1: New System

Date Prepared: 1/16/2015

Agency/state entity: Public Utilities Commission

All Costs Should be shown in whole (unrounded)

Project: Prepaid Mobile Telephony Service Surcharge Collection (MTS)

	FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
One-Time IT Project Costs								
Staff (Salaries & Benefits)	1.9	179,740	6.0	578,820	0	0	7.9	758,560
Program Staff (Salaries & Benefits) (3)	0.0	0	4.6	334,686	0	0	4.6	334,686
Hardware Purchase		0		40,000		0		40,000
Software Purchase/License		0		0		0		0
Telecommunications		0		0		0		0
Contract Services								
Software Customization		723,800		1,193,720		0		1,917,520
Project Management		0		0		0		0
Project Oversight (1)		56,280		112,560		0		168,840
IV&V Services		36,300		79,860		0		116,160
Other Contract Services - Project Manager		154,000		338,800		0		492,800
Other Contract Services - Citibank		0		150,000		0		150,000
TOTAL Contract Services		970,380		1,874,940		0		2,845,320
Data Center Services		0		0		0		0
Agency Facilities		0		0		0		0
Other (2)		0		0		0		0
Total One-time IT Costs	1.9	1,150,120	10.6	2,828,446	0.0	0	12.5	3,978,566
Continuing IT Project Costs								
Staff (Salaries & Benefits)	0.0	0	0.3	24,640	3.0	295,680	3.3	320,320
Program Staff (Salaries & Benefits) (3)	0.0	0	0.4	30,426	5.0	525,112	5.4	555,538
Hardware Lease/Maintenance		0		0		0		0
Software Maintenance/Licenses		0		0		0		0
Telecommunications		0		0		0		0
Contract Services		0		0		0		0
Data Center Services		0		0		0		0
Agency Facilities		0		0		0		0
Other		0		0		0		0
Total Continuing IT Costs	0.0	0	0.7	55,066	8.0	820,792	8.7	875,858
Total Project Costs	1.9	1,150,120	11.3	2,883,512	8.0	820,792	21.2	4,854,424
Continuing Existing Costs								
Information Technology Staff	0.5	52,800	0.5	52,800	0.5	52,800	1.5	158,400
Other IT Costs		75,119		75,119		75,119		225,357
Total Continuing Existing IT Costs	0.5	127,919	0.5	127,919	0.5	127,919	1.5	383,757
Program Staff	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Other Program Costs		0		0		0		0
Total Continuing Existing Program Co	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Total Continuing Existing Costs	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631
TOTAL ALTERNATIVE COSTS	4.7	1,461,997	14.1	3,195,389	10.8	1,132,669	29.6	5,790,055
INCREASED REVENUES		0		0		0		0

(1) Additional hardware to increase capacity of existing data center equipment

(2) FTE Department of Technology oversight resource

(3) These are the program staff required to implement the new MTS legislation. These staff are not required for and have no relationship to the continuing operation of the MTS system and are presented here solely to match the program operations resources identified in the MTS BCP as requested by CalTech.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

SIMM 20C, Rev. 06/2014

Agency/state entity: Public Utilities Commission

Project: Prepaid Mobile Telephony Service Surcharge Collection (MTS)

ECONOMIC ANALYSIS Date Prepared: 1/16/2015

All costs to be shown in whole (unrounded)

	FY 2014/15		FY 2015/16		FY 2016/17		TOTAL	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
EXISTING SYSTEM								
Total IT Costs	0.5	127,919	0.5	127,919	0.5	127,919	1.5	383,757
Total Program Costs	2.3	183,958	2.3	183,958	2.3	183,958	6.9	551,874
Total Existing System Costs	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631
PROPOSED ALTERNATIVE								
	Leverage TUFFS							
Total Project Costs	1.9	938,480	11.3	2,378,832	8.0	838,161	21.2	4,155,473
Total Cont. Exist. Costs	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631
Total Alternative Costs	4.7	1,250,357	14.1	2,690,709	10.8	1,150,038	29.6	5,091,104
COST SAVINGS/AVOIDANCES	(1.9)	(938,480)	(11.3)	(2,378,832)	(8.0)	(838,161)	(21.2)	(4,155,473)
Increased Revenues		0		0		0		0
Net (Cost) or Benefit	(1.9)	(938,480)	(11.3)	(2,378,832)	(8.0)	(838,161)	(21.2)	(4,155,473)
Cum. Net (Cost) or Benefit	(1.9)	(938,480)	(13.2)	(3,317,312)	(21.2)	(4,155,473)		
ALTERNATIVE #1								
	New System							
Total Project Costs	1.9	1,150,120	11.3	2,883,512	8.0	820,792	21.2	4,854,424
Total Cont. Exist. Costs	2.8	311,877	2.8	311,877	2.8	311,877	8.4	935,631
Total Alternative Costs	4.7	1,461,997	14.1	3,195,389	10.8	1,132,669	29.6	5,790,055
COST SAVINGS/AVOIDANCES	(1.9)	(1,150,120)	(11.3)	(2,883,512)	(8.0)	(820,792)	(21.2)	(4,854,424)
Increased Revenues		0		0		0		0
Net (Cost) or Benefit	(1.9)	(1,150,120)	(11.3)	(2,883,512)	(8.0)	(820,792)	(21.2)	(4,854,424)
Cum. Net (Cost) or Benefit	(1.9)	(1,150,120)	(13.2)	(4,033,632)	(21.2)	(4,854,424)		



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

SIMM 20C, Rev. 06/2014

PROJECT FUNDING PLAN

Agency/state entity: Public Utilities Commission

All Costs to be in whole (unrounded) dollars

Date Prepared: 1/16/2015

Project: Prepaid Mobile Telephony Service Surcharge Collection (MTS)

	FY 2014/15		FY 2015/16		FY 2016/17		TOTALS	
	PYs	Amts	PYs	Amts	PYs	Amts	PYs	Amts
TOTAL PROJECT COSTS	1.9	938,480	11.3	2,378,832	8.0	838,161	21.2	4,155,473
RESOURCES TO BE REDIRECTED								
Staff	1.9	179,740	3.3	307,780	0.0	0	5.2	487,520
Funds:								
Existing System		0		0		0		0
Other Fund Sources		758,740		0		0		758,740
TOTAL REDIRECTED RESOURCES	1.9	938,480	3.3	307,780	0.0	0	5.2	1,246,260
ADDITIONAL PROJECT FUNDING NEEDED								
One-Time Project Costs	0.0	0	7.3	2,015,986	0.0	0	7.3	2,774,726
Continuing Project Costs (1)	0.0	0	0.7	55,066	8.0	838,161	8.7	893,227
TOTAL ADDITIONAL PROJECT FUNDS NEEDED BY FISCAL YEAR	0.0	0	8.0	2,071,052	8.0	838,161	16.0	2,909,213
TOTAL PROJECT FUNDING	1.9	938,480	11.3	2,378,832	8.0	838,161	21.2	4,155,473
Difference: Funding - Costs	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
FUNDING SOURCE*								
General Fund	0%	0	0%	0	0%	0	0%	0
Federal Fund	0%	0	0%	0	0%	0	0%	0
Special Fund (2)	100%	938,480	100%	2,378,832	100%	838,161	100%	4,155,473
Reimbursement	0%	0	0%	0	0%	0	0%	0
TOTAL FUNDING	100%	938,480	100%	2,378,832	100%	838,161	100%	4,155,473

*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) Note that the funding needed for continuing costs in cell G16 includes not only IT staff required to support the new system but also includes funding for 5 program staff required to implement the AB1717 MTS legislation. These 4.5 program staff are not required for and have no relationship to the continuing operation of the MTS system. They are included here solely to match the program operations resources identified in the MTS BCP as requested by CalTech.

(2) The surcharge fund will be used to fund one-time and continuing costs.



Appendix A – MTS-Prepaid (Mobile) Telephony Surcharge Collection S1BA

Stage 1 Business Analysis

General Information

Agency or State Entity Name:
Public Utilities Commission

Organization Code:
8660

Name of Proposal:
Prepaid Telephony Surcharge Collection

Proposed Start Date: November 2014

Department of Technology Project Number: 8660-079

Submittal Information

Submission Date:
10/24/2014

Contact First Name: Contact Last Name:
Daniela Dell'Aera

Contact email: Contact Phone:
daniela.dellaera@cpuc.ca.gov (415) 703-2909

Business Sponsor and Key Stakeholders

Executive Sponsors

Title	First Name	Last Name	Business Program Area
Director	Ryan	Dulin	Communications Division

Business Owners

Title	First Name	Last Name	Business Program Area
Program Manager	Michael	Amato	Communications Division

Key Stakeholders

Title	First Name	Last Name	Business Program Area/Group	External
Fiscal Manager	Michelle	Morales	Management Services Branch	<input type="checkbox"/>
Previously Communications Advisory	Eric	Van Wambeke	Previously Communications Division	<input type="checkbox"/>
Program & Project Supervisor	Felix	Robles	Communications Division	<input type="checkbox"/>
IT Project Manager	Stephanie	Allen	Board of Equalization	<input checked="" type="checkbox"/>



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

1.1 Business Drivers	
Financial Benefit:	<input type="checkbox"/> Increased Revenues <input type="checkbox"/> Cost Savings <input type="checkbox"/> Cost Avoidance
Mandate(s):	<input checked="" type="checkbox"/> State <input type="checkbox"/> Federal
Improvement:	<input type="checkbox"/> Better services to citizens <input type="checkbox"/> Efficiencies to program operations <input type="checkbox"/> Technology refresh
1.2 Statutes or Legislation	
Statutes or Legislation:	<input checked="" type="checkbox"/> New statutes or potential legislation <input type="checkbox"/> Not Applicable <input type="checkbox"/> Changes to existing legislation
Bill Number:	AB1717
Legal Code:	Section 319 is added to the Public Utilities Code
Additional Information:	Telecommunications: prepaid mobile telephony services: state surcharge and fees: local charges collection. Effective 01/01/2015; implement by 01/01/2016.

1.3 Program Background and Context
<p>The California Public Utilities Commission (Commission) regulates privately owned public utilities operating in the state of California, including telephone corporations.</p> <p>Telecommunications utilities and VoIP providers are currently required to assess and collect surcharges and fees imposed on intrastate telecommunications services by the State of California, for the CPUC and the Board of Equalization (BOE). Telecommunications companies are additionally required to assess, collect and remit local fees and charges to those municipalities that have imposed such fees.</p> <p>Universal Service / Public Purpose Program (PPP) Surcharges The Commission is the state agency with the delegated authority to develop and implement policies for the telecommunications industry that will ensure fair and affordable universal access to telecommunications services by the citizens of California. One of the means by which the State ensures universal service is by requiring all telecommunications carriers to assess surcharges on their intrastate revenues and to remit those funds to the Commission on a monthly basis to fund the following Universal Service Programs:</p> <ul style="list-style-type: none"> Universal Lifeline Telephone Service (ULTS): provides discounted home phone and cell phone services to qualified households. Deaf and Disabled Telecommunications Program (DDTP): provides telecommunications devices to deaf or hearing impaired consumers. California High Cost Fund-A (CHCF-A): provides a source of supplemental revenues to 13 small local exchange carriers (LECs) for the purpose of minimizing any basic telephone service rate disparity between rural and metropolitan areas. California High Cost Fund-B (CHCF-B): provides subsidies to carriers of last resort (COLRs) for providing basic local telephone service to residential customers in high-cost areas. California Teleconnect Fund (CTF): provides a 50% discount on select communications services to schools, libraries, hospitals, and other non-profit organizations. California Advanced Services Fund (CASF): promotes deployment of high-quality advanced communications services to all Californians. <p>Surcharge payments are made to the Commission's proprietary Telecommunications User Fees Filing System</p>



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

(TUFFS).

CPUC, 911, and Local Government Fees

In addition to the above universal service surcharges, carriers are required to collect and remit fees imposed by the Federal Communications Commission (FCC) and the following fees that are specific to California:

CPUC User Fee: Carriers collect and remit to the CPUC a fee for users of telecommunications in California.

The fee is assessed as a percentage of a carrier total intrastate revenues. The CPUC User Fee funds the annual Commission budget for costs of regulating telecommunications utilities, with carriers remitting funds on a quarterly or annual basis, depending on the amount of revenue generated by the utility.

Emergency Telephone (911) Users Surcharge Tax: Carriers collect and remit to BOE monthly a fee that provides funding for Emergency Telephone Service (911) in California.

Utility Users Tax (UUT): Four counties and approximately 150 cities, representing about 50% of the population of California, have imposed utility taxes on their residents. Telecommunications utility taxes are currently collected by the carriers from their customers and remitted to local city and county governments on an annual, quarterly, or monthly basis, depending on the local government policy. The funds are used for various purposes, based on needs in each of the local jurisdictions.

Telecommunication corporations and VoIP providers use the Telecommunications and User Fees Filing System (TUFFS) to remit the surcharges identified above to the CPUC. The TUFFS web based system allows carriers to calculate, report, and remit surcharges on a monthly basis electronically. Payment is made by Automated Clearing House (ACH) where the funds are debited from the carrier's bank account and credited to California accounts for each of the programs noted above.

Payments for the CPUC User Fee are remitted manually to the Commission using a paper form and a bank check that is sent via postal mail.

1.4 Business Problem or Opportunity Summary

On October 1, 2014, Governor Brown signed into law AB1717: *Telecommunications: prepaid mobile telephony services: state surcharge and fees: local charges collection*. This legislation changes how the surcharges associated with prepaid mobile telephony (i.e., wireless) services identified in Section 1.3 of the bill are collected and remitted, and becomes effective on January 1, 2015, with implementation to be completed by January 1, 2016.

The legislation requires that surcharges and fees identified in Section 1.2 of the bill be aggregated into one Mobile Telephony Service (MTS) surcharge. The MTS surcharge is composed of the CPUC user fee, California's six universal service surcharges, 911 surcharge and applicable local UUT.

The bill impacts surcharge processes and requirements are impacted in several ways. The following changes provide the most significant impact for the CPUC:

Surcharges from Third-Party Retail Sales:

The MTS surcharge will be based on the sales price of prepaid mobile telephony services and will be collected by the retailer from the customer at the point of sale. The retailer will then remit the fees collected (less a 2% recovery) to the BOE on a quarterly basis. BOE will transfer the funds to the appropriate state program account and report the amount of the transfer to the commission, also on a quarterly basis. In addition, the PUC must find a way to accept and integrate the MTS monies and identify information provided by the BOE into the TUFFS database or another source. There currently does not exist any electronic portal or other means that would allow BOE to provide this information to the PUC. This information must include but is not limited to:

- the identification of the total amount of MTS monies having been collected in a quarter.
- identification of any revenues being reduced prior to being provided to the CPUC for the retail 2% or BOE costs
- identification of the carrier for which monies are being remitted
- identification of any funds being remitted or removed from a previous quarter
- identification of any penalty amounts assessed and collected



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

This information is necessary to assure the continued comprehensive oversight of program funding and in addition is required so that the PUC is able to accurately estimate future surcharge rates and confirm that the new MTS process is not causing a loss in surcharge revenues.

Surcharges from Direct Sales: Telecommunications corporations will continue to be required to separately assess, collect and remit surcharges on the direct sale of prepaid mobile services. However these will now be in the form of the MTS surcharge which uses different rates and has a different remittance schedule than the other surcharges remitted to the Commission. Direct sales include those services sold directly by the carrier at company stores, through their on-line websites, through the mobile device, or over the telephone with the carrier.

MTS Surcharge Rate: The Commission is responsible for determining the MTS surcharge rate on an annual basis on or before October 1 of each year, posting the surcharge rate on the Commission's website, and notifying BOE of the surcharge rate.

The Commission will be required to develop new systems or modify existing systems to meet the new requirements imposed by the bill. For example, the Commission will require at least two new processes to administer the direct and indirect MTS revenues. These new processes will be required to identify and track the remittance of surcharges and fees remitted by prepaid wireless carrier as a result of direct sales as well as those monies remitted to BOE from retailers as a result of indirect sales. TUFFS currently handles all surcharge tracking but due to the differing requirements of MTS the system is unable to meet the new requirements.

TUFFS provides carriers a web portal to remit surcharges on a monthly basis, automatically calculating the amount due based on intrastate revenue, and automatically charging late fees when appropriate.

Security concerns will be addressed in the FSR being developed.

1.5 Business Problems or Opportunities and Objectives Table

ID Problems and Opportunities

- 1 **Mandated Changes to Collection of Surcharges:** There currently exists no process or system to allow for the remittance of the MTS surcharge on prepaid wireless services to either the Commission or BOE. Additionally, there exist no processes or system to allow for the communications of financial information between the agencies.

ID Objective

- 1.1 **State Mandate:** Support the newly mandated business requirement that requires the separate collection and tracking of surcharges through the MTS from direct and indirect sales of prepaid wireless telephony services

Metric	Baseline	Target	Measurement Method
Percentage of surcharges collected on prepaid wireless telephony services.	100% of surcharges collected on telephony services.	100% of MTS surcharges collected on prepaid wireless telephony services on and after January 1, 2016.	MTS Surcharge Collection Reporting and remittance

ID Objective

- 1.2 **Collect, track and separate the MTS into the following buckets:** the six Universal Service/PPP Surcharges and CPUC User Fee and maintain the continued oversight of program funding

Metric	Baseline	Target	Measurement Method
The required number of reports that would provide the functionality and resource	100% of surcharges are tracked and delivered to the appropriate	Reporting allowing the tracking and administration of the	MTS Surcharge remittance, reporting and breakdown Reports available and



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

necessary to track all MTS funds and deposit them into the appropriate programs	programs while providing direct oversight of carriers and funds	MTS by the CPUC to assure the continued funding of all programs within 12 months of implementation	effective
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ID Objective

1.3 Provide wireless telecommunication carriers the ability to report and remit the MTS due on direct sale revenues to the CPUC

Metric	Baseline	Target	Measurement Method
Percentage of carriers reporting and remitting prepaid MTS direct sale revenues to the CPUC	0% of carriers reporting and remitting prepaid MTS direct sale	100% of carriers reporting and remitting prepaid MTS direct sale revenues by January 1, 2016	MTS Surcharge Collection Report by Telecommunication Carrier

ID Problems and Opportunities

2 Mandated Surcharge Rate Setting: CPUC has been mandated to determine the MTS surcharge rate, a rate separate and distinct from all other surcharges.

ID Objective

2.1 State Mandate: Meet the requirement of determining the appropriate surcharge percentages to be assessed for the MTS that will cover the new costs associated with the MTS as well as meet ongoing program funding requirements.

Metric	Baseline	Target	Measurement Method
The accuracy of the new MTS surcharge rate to appropriately generate the revenue sufficient to meet expenses while not over collecting.	0% accuracy	80% accuracy within 12 months of implementation	MTS Surcharge Collection Report

1.6 Strategic Business Alignment

Strategic Business Goals	Alignment
<p>CPUC Annual Report Goal: Ensure that Californians receive safe, reliable utility service and infrastructure at reasonable rates, with a commitment to environmental enhancement and a healthy California economy.</p>	Implementation of mandated surcharges that are used to keep communication services affordable and available to people at all economic levels.
<p>CalTech Strategic Plan Strategic Goal 1 – Responsive, Accessible and Mobile Government Objective 1.3 - Enhance transparency, accessibility, and openness through online solutions.</p>	Implementation provides an online solution
<p>CalTech Strategic Plan Strategic Goal 4 - Information as an Asset Objective 4.1 - Protect sensitive and confidential data</p>	Software will have safeguards for carrier sensitive data

through implementation of strong security and privacy standards and practices.



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

Appendix B – TUFFS Screen Shots

Carrier Profile | Surcharge Reporting | Remittance Adjustment

Carrier Payment Cycle and Profile

Carrier Name: [Redacted]

DBA Name(s): [Redacted]

Regulatory Contact Information:

First Name: [Redacted]
 Last Name: [Redacted]
 Title: [Redacted]
 Phone: [Redacted]
 Address: [Redacted]
 City: [Redacted]
 State: OH
 Zip Code: [Redacted]

De Minimis Rate

De Minimis: Yes No

Reporting Cycle: [Redacted]

Utility Identification Number: [Redacted]
 De Minimis: NO
 Reporting Cycle: Monthly

Surcharge Remittance List - Windows Internet Explorer

http://dplphi.calpuc.cpuc.ca.gov:7778/pls/apex/F?p=300:3:1478529858371972::NO

U.GOV | Utilities Commission

Carrier Profile | **Surcharge Reporting and History** | Reporting | Adjustment

Report CPUC Program Surcharges

Create a New Surcharge Form

Reported Surcharge History

Billing Period	Utility Identification Number	Outstanding Surcharges	Payment Due Date	Last Payment Date
February 2010	U-6509-C	Yes	10/10/2010	10/10/2010
January 2010	U-6509-C	Yes	09/20/2010	09/20/2010
December 2009	U-6509-C	No	09/20/2010	09/20/2010
November 2009	U-6509-C	Yes	09/20/2010	09/20/2010
April 2009	U-6509-C	No	09/17/2010	09/17/2010
March 2009	U-6509-C	Yes	09/20/2010	09/20/2010

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Total Unpaid Surcharges

What is included in the Unpaid Balance?

Surcharge	Unpaid Balance
ULTS	\$1,161.50
DOTP	\$202.00
CHCF-A	\$131.30
CHCF-B	\$454.50
CTF	\$0.00
CASF	\$252.50

Link opens the following text info:

Total unpaid surcharges reflects transactions from the June 2011 billing period forward. Payments completed by 3 PM Pacific Time are reflected here by 6 AM the following banking day. Banking days are Monday through Friday (except holidays).



Prepaid Mobile Telephony Service Surcharge Collection (MTS)

Carrier Profile | **Surcharge Reporting and History** | Reporting Adjustment

Surcharge Reporting and History

Report CPUC Program Surcharges

Create a New Surcharge Form

Reported Surcharge History

Billing Period	Utility Identification Number	Outstanding Surcharges	Payment Due Date	Last Payment Date
November 2010	U-█████-C	Yes	01/09/2011	
October 2010	U-█████-C	Yes	12/10/2010	
September 2010	U-█████-C	Yes	11/09/2010	
August 2010	U-█████-C	Yes	10/10/2010	
July 2010	U-█████-C	Yes	09/09/2010	
June 2010	U-█████-C	Yes	08/09/2010	

row(s) 1 -- 6 of 6 Next >

Total Unpaid Surcharges

What is included in the Unpaid Balance?

Surcharge	Unpaid Balance
ULTS	\$1,404.66
DOTP	\$247.09
CHCF-A	\$135.14
CHCF-B	\$562.16
CTF	\$99.18
CASF	\$0.00

Carrier Profile | Surcharge Reporting and History | Reporting Adjustment

Surcharge Reporting and History > **Telephone Surcharge Reporting Form**

Report Total Incomplete Billings

Utility Identification Number U-█████-C
 Carrier Name ████████████████████
 Billing Period December 2010
 Payment Due Date 02/08/2011
 Total Incomplete Billings Subject To Surcharge(s) 1212121

Calculate Surcharge

Service Provider Subsidy Program

Surcharge	System Calculated Surcharge(s)	Carrier Adjustment(s)	Surcharge Due(s)	Priority Payment(s)	Total Due(s)
1. UNIVERSAL LIFELINE TELEPHONE SERVICE PROGRAM (ULTS)	1399.39		1399.39	427.94	14261.25
2. DEAF AND DISABLED TELECOMMUNICATIONS PROGRAM (DOTP)	2428.28		2428.28	75.82	2498.18
3. CALIFORNIA HIGH-COST FUND-A (CHCF-A)	0		0	0	0
4. CALIFORNIA HIGH-COST FUND-B (CHCF-B)	6464.64		6464.64	168.08	6632.43
5. CALIFORNIA TELECONNECT FUND (CTF)	967.50		967.50	29.12	996.7
6. CALIFORNIA ADVANCED SERVICES FUND (CASF)	0		0	0	0

Apply Adjustment | Clear | Cancel | **Submit**

Carrier Profile | Surcharge Reporting and History | Reporting Adjustment

Reporting Adjustment > **Report Adjustment**

Utility Identification Number U-█████-C
 Carrier Name ████████████████████
 Billing Period November 2010

Reported Total Incomplete Billings (s) 20000
 Connected Total Incomplete Billings (s) 12121 **Step 1**
 Adjustment Amount (s) -16879
 Adjustment Reason: No Change **Step 2**

Calculate Surcharge **Step 3**

Message from website

Please verify the information is correct, select OK to submit

OK | Cancel

Surcharge Adjustments

Surcharge	Surcharge Due (s)	Carrier Adjustment (s)	Reason	Adjusted Surcharge (s)
1. UNIVERSAL LIFELINE TELEPHONE SERVICE PROGRAM (ULTS)	1399.39	2323232	No Change	2303371.39
2. DEAF AND DISABLED TELECOMMUNICATIONS PROGRAM (DOTP)	2428.28	488	No Change	488.28
3. CALIFORNIA HIGH-COST FUND-A (CHCF-A)	13.33	85595	No Change	85578.33
4. CALIFORNIA HIGH-COST FUND-B (CHCF-B)	39.39	-10	No Change	29.39
5. CALIFORNIA TELECONNECT FUND (CTF)	8.64	0	No Change	8.64
6. CALIFORNIA ADVANCED SERVICES FUND (CASF)	0	0	No Change	0

Apply Adjustment | Clear | Cancel | **Submit**

Step 4 | Step 5



Appendix C – Security and Privacy Questionnaire

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

PROPOSED SYSTEM

1. Who will be the designated owner of the proposed system?
 - Carrier Oversight and Programs Branch Program Manager and Budget and Fiscal Services Branch
2. Who will be the custodians and users of the system?
 - Carrier Oversight and Programs Branch and Budget and Fiscal Services Branch
3. Has the data for the system been classified by the owner? Explain.
 - Data elements in TUFFS has been classified as public or private
4. Does the project require development of new application code or modification of existing code? Explain.
 - TUFFS will be modified
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.



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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.



Appendix D – Complexity Assessment

