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

Fiscal Year	Business Unit	Department	Priority No.
2016-17	7730	Franchise Tax Board	2

Budget Request Name	Program	Subprogram
7730-002-BCP-BR-2016-GB	6280/6290/6295	6280010/6280019

Budget Request Description
E-Commerce Infrastructure Refresh

Budget Request Summary

The Franchise Tax Board (FTB) requests $3.4 million General Fund and $149,000 special funds in 2016-17, $1.8 million General Fund and $81,000 special funds in 2017-18, and $163,000 General Fund and $7,000 special funds in 2018-19 and ongoing to refresh and expand the Internet network infrastructure, which is reaching end of life (EOL) beginning February 2017.

A failure after EOL would severely affect both internal and external customers. FTB staff would lose access to systems that allow them to accept and process returns, prevent fraud and assist taxpayers with compliance. Taxpayers would no longer have the convenience to use self-service options to resolve their tax obligations and the information entrusted to FTB would be vulnerable to security breaches.

Requires Legislation	Code Section(s) to be Added/Amended/Repealed
☐ Yes ☒ No	

Does this BCP contain information technology (IT) Components? ☒ Yes ☐ No *If yes, departmental Chief Information Officer must sign.*	Department CIO	Date

For IT requests, specify the date a Special Project Report (SPR) or Feasibility Study Report (FSR) was approved by the Department of Technology, or previously by the Department of Finance.

☒ FSR-RER ☐ SPR Project No. 7730-208 Date: July 14, 2015

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

Prepared By	Date	Reviewed By	Date

Pending Board Approval

Department Director	Date	Agency Secretary	Date

Department of Finance Use Only

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

BCP Type: ☐ Policy ☐ Workload Budget per Government Code 13308.05

PPBA	Date submitted to the Legislature

Analysis of Problem

A. Budget Request Summary

The Franchise Tax Board (FTB) requests $3.4 million General Fund and $149,000 special funds in 2016-17, $1.8 million General Fund and $81,000 special funds in 2017-18, and $163,000 General Fund and $7,000 special funds in 2018-19 and ongoing to refresh and expand the Internet network infrastructure, which is reaching end of life (EOL) beginning February 2017.

A failure after EOL would severely affect both internal and external customers. FTB staff would lose access to systems that allow them to accept and process returns, prevent fraud and assist taxpayers with compliance. Taxpayers would no longer have the convenience to use self-service options to resolve their tax obligations and the information entrusted to FTB would be vulnerable to security breaches.

B. Background/History

The E-Commerce Portal Infrastructure (EPI) Feasibility Study Report (FSR) was developed and approved by the Department of Finance on January 10, 2007, to provide Internet network infrastructure and tools to effectively and efficiently manage, maintain and grow FTB's Internet network platform.

FTB programs rely heavily on this infrastructure to connect all California taxpayers, as well as FTB staff, to taxpayer information on our systems. This infrastructure also allows taxpayers to securely fulfill their tax obligations using the 24x7x365 self-service filing and payment options available on FTB's website. FTB's network-dependent programs contribute over two-thirds of California's General Fund revenue. Currently, 84 percent of taxpayers e-file tax returns, with the volume and associated data expected to continually increase. FTB received 15.1 million electronic returns and processed 4.4 million electronic payments in 2014. This is an increase of 7 percent and 10 percent, respectively, over the prior year.

FTB currently offers public-facing web applications (via ftb.ca.gov), which allow FTB's external customers (taxpayers, tax professionals, business entities, and non-tax debtors), access to our services using the web. Applications include the following:

- CalFile
- e-file
- My FTB (Legacy & New)
- WebPay
- Direct Deposit of Refund (DDR)
- K-1 Filing
- Business Entity DDR
- Credit Cards Payments
- Electronic Funds Transfer

FTB's Internet network infrastructure ensures bank deposits are transmitted effectively and timely to California's General Fund, as FTB realizes interest earned on timely deposits. The same is true for the timely deposit of refunds electronically transmitted to the taxpayer, thereby avoiding interest payments on refunds.

FTB's Internet network infrastructure is responsible for distributing workloads across multiple computing resources such as servers, security devices, and other technology systems (see attachment 1). Load Balancers are an important aspect of FTB's Internet network infrastructure, optimizing resource use, maximizing throughput, minimizing response time, and avoiding overload of any single resource. Load balancing ensures workloads are properly sorted and distributed evenly.

Network switches are the vital high speed device that receive incoming data and redirects the data to the appropriate computing and/or system resource. These are crucial for FTB to provide connectivity to mission critical revenue generating systems, such as the Accounts Receivable Collection System (ARCS) and Integrated Non-Filer System (INC).

FTB's Internet network infrastructure must protect taxpayer privacy and ensure security of taxpayer information. FTB's network must have comprehensive and updated security firewalls in place to ensure the security of its network and mitigate potential breaches.

The Network Engineering Services Section installs, operates and maintains the hardware and software that comprises the enterprise Internet network infrastructure. The table below provides the resource history for the Network Engineering Services Section.

Resource History

Program Budget	2010-11	2011-12	2012-13	2013-14	2014-15
Authorized Expenditures	$737,000	$749,000	$757,000	$787,000	$813,000
Actual Expenditures	$737,000	$749,000	$757,000	$787,000	$813,000
Revenues	N/A	N/A	N/A	N/A	N/A
Authorized Positions	5	5	5	5	5
Filled Positions	5	5	5	5	5
Vacancies	0	0	0	0	0

C. State Level Considerations

FTB's Internet network infrastructure is nearing EOL and will no longer be supported beginning February 2017. FTB's ability to conduct business on behalf of the State of California is at risk. Without having a secure network, FTB's systems will be vulnerable, jeopardizing the security of taxpayer data. As access to internal and external systems relies on the Internet network infrastructure, failure would result in enterprise-wide work stoppage until an emergency replacement of the Internet network infrastructure could be completed. In addition, once support ends, FTB will no longer receive updates and patches, compromising the security of the network and systems. This would leave taxpayer data vulnerable, the public's perception of FTB damaged, and could adversely impact the State of California's General Fund.

This proposal supports FTB's Strategic Plan Goal #2 of Effective Enforcement that states, "We will administer and enforce the law effectively to ensure that all taxpayers meet their obligations to file and pay the proper amount owed." FTB's Internet network infrastructure supports voluntary compliance by providing web facing applications, allowing taxpayers the ability to review their notices, make payments and correspond with FTB at their convenience.

This proposal also aligns with Goal #4 of Operational Excellence that states, "We will build an operational infrastructure in order to continuously provide excellent and cost effective products and services to our customers." FTB's Internet network infrastructure allows the creation and addition of new features and applications to benefit the taxpayer online experience.

D. Justification

Beginning February 2017, several important components of FTB's Internet network infrastructure will be at EOL and can no longer be supported. FTB's programs rely heavily on this infrastructure to

securely, reliably and efficiently connect all California taxpayers, as well as FTB staff, to taxpayer information on our systems. End of life dates of items are:

- Secure Server Farm (SSF) Switches - EOL August 31, 2017
- Edge Switches - EOL August 31, 2017
- Load Balancers - EOL February 28, 2017
- Internet Gateway - EOL August 31, 2017
- Remaining SSF switches - EOL August 31, 2017
- Production Firewalls - End of engineering support December 31, 2016, EOL – December 31, 2018

Component failure after end of support would lead to enterprise-wide work stoppage until an emergency replacement of the Internet network infrastructure could be completed. As the infrastructure is the backbone of FTB, a failure in the system will affect every division and their staff's ability to perform their daily workloads. FTB would no longer have access to systems that accept and process returns, prevent fraud, or assist taxpayers with compliance. EOL would also prevent taxpayers from receiving due process notices and other system generated correspondence, having the ability to electronically file or using FTB's self-service systems to make payments. This freeze in work and prevention of system use, will negatively affect FTB's efforts to obtain voluntary compliance and the ability to generate revenue. In addition, once support ends, FTB will no longer receive updates and patches, compromising the security of the network and systems. This would leave taxpayer data vulnerable, the public's perception of FTB damaged, and could adversely impact the State of California's General Fund.

This refresh will update FTB's enterprise Internet network infrastructure through 2023 to meet the enterprise work demands, receive updates and patches, and have access to replacement equipment components. In order to reduce resource constraints, minimize impacts to current FTB network environments, and reduce filing season moratorium constraints, FTB will use a phased approach to refresh the Internet network infrastructure in the two separate Data Center floors.

In 2016-17, FTB will procure and install into production the following:

- Gateway Production Firewalls
- Various SSF Switches
- Edge Switches
- Load Balancers

In 2017-18, FTB will procure and install into production the following:

- Edge Switches and Routers
- Load Balancers
- Remaining SSF Switches

In addition to the EOL issue, FTB's enterprise Internet network infrastructure will not have sufficient capacity to handle the demands of FTB's tax and non-tax programs. Currently 100 percent of the network switch ports are allocated to current servers and technology systems. This is a major concern for FTB's workload growth and will jeopardize FTB's ability to perform its future revenue-generating work for California, as well as offer self-service options to taxpayers. By increasing FTB's Internet network infrastructure port capacity, this will meet projected workload increases and demand of mobile devices through June 2023.

E. Outcomes and Accountability

The FTB's mission is to help taxpayers file accurate and timely tax returns and pay the proper amount owed. To accomplish this mission, FTB has an Internet network infrastructure which consists of switches, routers, load balancers, and gateway firewalls. This proposed solution will refresh the Internet network infrastructure and increase port capacity for projected workload growth through June 2023.

This BCP is supported by the FSR-Request for Exemption Reporting, Project Number 7730-208 approved by the California Department of Technology on July 14, 2015.

F. Analysis of All Feasible Alternatives

Alternative #1: Provide $3.4 million General Fund and $149,000 special funds for 2016-17, $1.8 million General Fund and $81,000 special funds for 2017-18, and $163,000 General Fund and $7,000 special funds in 2018-19 and ongoing to refresh and expand the Internet network infrastructure and increase port capacity for projected workload growth through June 2023.

Without this refresh, FTB cannot ensure the security of its network from potential breaches. Further, as staff access to internal and external systems relies on the Internet network infrastructure, failure of this infrastructure would result in enterprise-wide work stoppage until an emergency replacement of the Internet network infrastructure could be completed. In addition, FTB runs the risk of not securing the infrastructure that allows taxpayers to fulfill their tax obligation using the 24x7x365 self-service filing and payment options available on FTB's website.

Alternative #2: Finance both the 2016-17 and 2017-18 equipment purchases over three years using the GS $Mart Program ($1.4 million General Fund and $61,000 special fund in 2016-17; $1.9 million General Fund and $83,000 special fund in 2017-18; $1.8 million General Fund and $78,000 special fund in 2018-19; and $535,000 General Fund and $24,000 special fund in 2019-20). This will allow for the costs of the refresh to be spread over multiple years at a lower amount. FTB estimates that financing the refresh through 2019-20 would cost approximately $250,000 more compared to paying up front, but would save the state $2.1 million in the budget year.

Alternative #3: Leverage Office of Technology (OTech) Data Center Services. To utilize OTech's Data Center Services, FTB must physically move all servers and systems to the OTech Data Center from the FTB raised floor. This alternative would be subject to the following issues:

- The migration process would take a minimum of three years to complete. This delay will put FTB at risk by not meeting its processing compliance workload requirements.
- FTB and OTech have limited resources to devote to completing a migration of this magnitude. Therefore, exorbitant costs and risks would be incurred.
- Excessive costs due to platform license purchases, contracts, and consultant fees, etc.
- FTB has a significant investment in raised floor capacity.
- Increased security issues due to transmitting FTB mainframe data to FTB OTech managed servers and systems over a public network.
- FTB has very small window for nightly batch processing which is critical to update the key systems to process the high volumes of tax returns and payments. This is especially important during the peak processing seasons where FTB deposits the majority of the general fund deposits over a very short period of time. Utilizing OTech's managed services would not allow FTB sufficient processing time for the nightly batch services causing delays to return and payment processing past the mandated processing time-frames. This causes additional lost revenue to the state since FTB would be required to pay additional processing interest and penalties.

Alternative #4: Deny request**.** By denying the request, FTB will not being able to refresh and support its Internet network infrastructure, putting the department at risk. Without having a secure network, FTB's systems will be vulnerable, jeopardizing the security of taxpayer data. Internet network infrastructure failure would result in enterprise-wide work stoppage, which directly impacts FTB's ability to contribute to California's General Fund. Even a minor breach in security would lead to a severe loss of public trust and impact the perception of FTB as a government leader in data security.

G. Implementation Plan

2016-17

- July 1, 2016 – Funding provided.
- July 2016 – Award procurement for gateway firewalls.
- September 2016 – Award procurement for routers and switches.
- October 2016 – Award procurement of load balancers.
- November 2016 – Implement gateway firewalls into production.
- June 2017 – Implement routers and switches into production.
- June 2017 – Implement load balancers into production.

2017-18

- July 2017 – Award procurement for routers and switches.
- July 2017 – Award procurement for load balancers.
- December 2017 – Implement routers and switches into production.
- December 2017 – Implement load balancers into production.

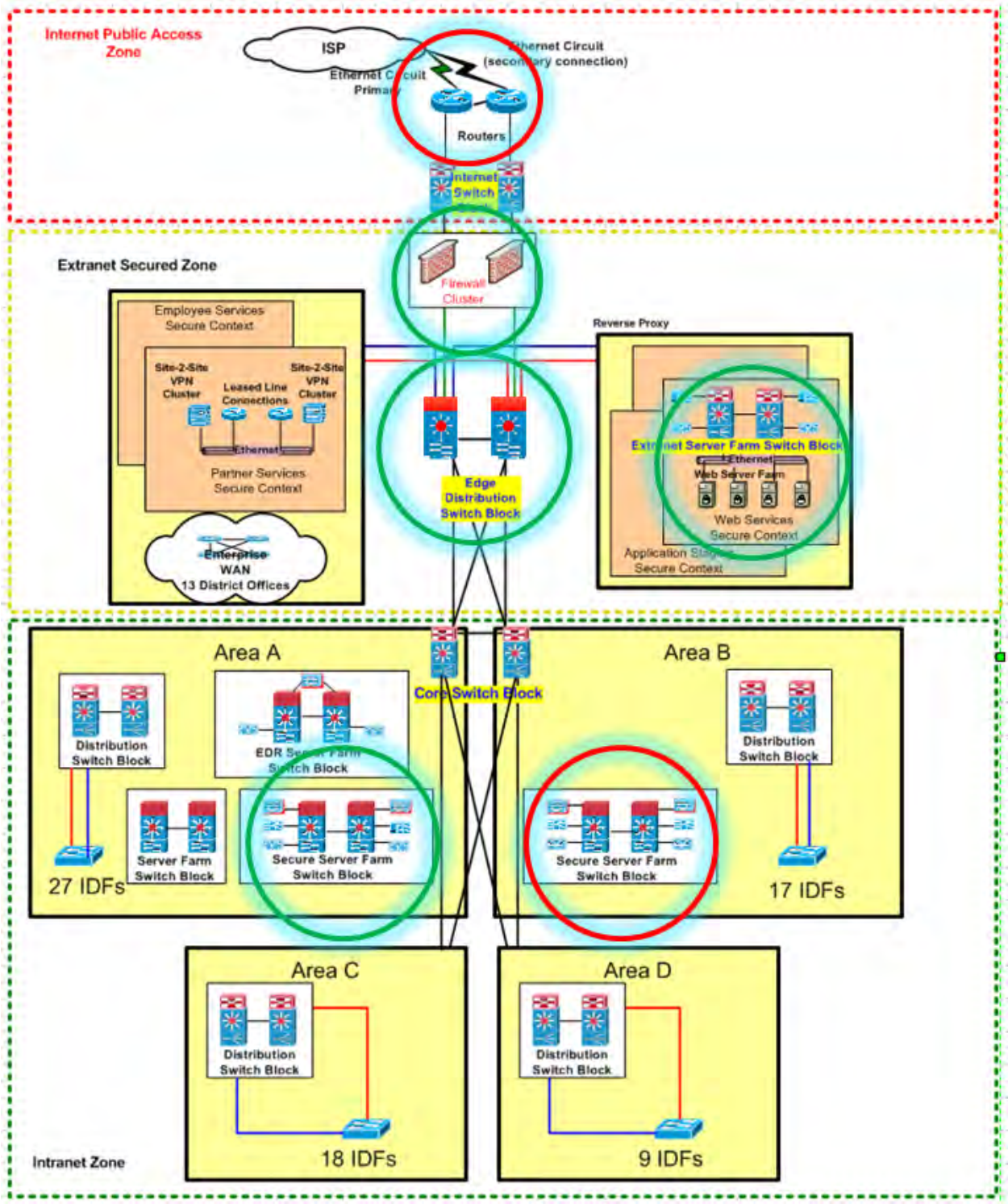
H. Supplemental Information

None

I. Recommendation

Alternative #1 is recommended. Beginning February 2017, several important components of FTB's Internet network infrastructure will be at EOL and need to be replaced. FTB's programs rely heavily on this infrastructure to securely, reliably and efficiently connect all California taxpayers, as well as FTB staff, to taxpayer information on our systems. Component failure after end of support would lead to enterprise-wide work stoppage until an emergency replacement of the Internet network infrastructure could be completed. As the infrastructure is the backbone of FTB, a failure in the system will affect every division and their staff's ability to perform their daily workloads.

E-Commerce Infrastructure Refresh BCP
Attachment 1



7730-002-BCP-BR-2016-GB

	CY	BY	BY+1	BY+2	BY+3	BY+4
Positions						
Permanent	0.0	0.0	0.0	0.0	0.0	0.0
Temporary	0.0	0.0	0.0	0.0	0.0	0.0
Exempt	0.0	0.0	0.0	0.0	0.0	0.0
Board	0.0	0.0	0.0	0.0	0.0	0.0
Total Positions	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
Salaries and Wages						
Earnings - Permanent	0	0	0	0	0	0
Earnings - Temporary	0	0	0	0	0	0
Earnings - Statutory/Exempt	0	0	0	0	0	0
Overtime, Holiday, Other	0	0	0	0	0	0
Total Salaries and Wages	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Staff Benefits						
Dental Insurance	0	0	0	0	0	0
Disability Leave	0	0	0	0	0	0
Health Insurance	0	0	0	0	0	0
Life Insurance	0	0	0	0	0	0
Medicare Taxation	0	0	0	0	0	0
OASDI	0	0	0	0	0	0
Retirement	0	0	0	0	0	0
Unemployment Insurance	0	0	0	0	0	0
Vision Care	0	0	0	0	0	0
Workers Compensation	0	0	0	0	0	0
Staff Benefits - Other	0	0	0	0	0	0
Total Staff Benefits	**0**	**0**	**0**	**0**	**0**	**0**
Total Personal Services	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
Operating Expenses and Equipment						
General Expense	0	0	0	0	0	0
Printing	0	0	0	0	0	0
Communications	0	0	0	0	0	0
Postage	0	0	0	0	0	0
Insurance	0	0	0	0	0	0
Travel	0	0	0	0	0	0
Training	0	59,000	59,000	0	0	0
Facilities Operations	0	0	0	0	0	0
Utilities	0	0	0	0	0	0
Consulting and Professional Services	0	271,000	124,000	0	0	0
Departmental Services	0	0	0	0	0	0
Consolidated Data Centers	0	0	0	0	0	0
Information Technology	0	3,189,000	1,705,000	170,000	0	0
Central Administrative Services	0	0	0	0	0	0
Office Equipment	0	0	0	0	0	0
Other	0	0	0	0	0	0
Unclassified/Special Adjustment	0	0	0	0	0	0
Total Operating Expenses and Equipment	**$0**	**$3,519,000**	**$1,888,000**	**$170,000**	**$0**	**$0**
Total Budget Request	**$0**	**$3,519,000**	**$1,888,000**	**$170,000**	**$0**	**$0**
Fund Source - State Operations						
General Fund	0	3,370,000	1,807,000	163,000	0	0
Federal Funds	0	0	0	0	0	0
Other/Special Funds	0	149,000	81,000	7,000	0	0
Total State Operations Expenditures	**$0**	**$3,519,000**	**$1,888,000**	**$170,000**	**$0**	**$0**
Fund Source - Local Assistance						
General Fund	0	0	0	0	0	0
Federal Funds	0	0	0	0	0	0
Other/Special Funds	0	0	0	0	0	0
Total Local Assistance Expenditures	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**