

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 08/17)

Fiscal Year 2019-20	Business Unit	Department Franchise Tax Board	Priority No. 3
Budget Request Name 7730-003-BCP-2019-GB		Program 6280/6290/6295	Subprogram 6280010/6280019

Budget Request Description
 Local Area Network (LAN) Infrastructure Refresh Project

Budget Request Summary

The Franchise Tax Board (FTB) is requesting \$5.7 million General Fund and \$253,000 Special Funds in 2019-20 and \$12,000 General Fund in 2020-21 and ongoing to refresh the aging equipment and software that is reaching End-of-Life (EOL) and approaching End-of-Service (EOS) within the LAN infrastructure. FTB will also upgrade throughput (speed) to and from the network core from 10Gbps to at least 40Gbps. The overall result of this refresh will reduce the risk that LAN infrastructure components will fail or be compromised and also assure the necessary bandwidth to conduct successful operations and protect FTB's return and refund processing functions and compliance activities.

Requires Legislation <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Code Section(s) to be Added/Amended/Repealed	
Does this BCP contain information technology (IT) components? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <i>If yes, departmental Chief Information Officer must sign.</i>	Department CIO <i>Kem A. Meyer</i>	Date <i>9/25/18</i>
For IT requests, specify the project number, the most recent project approval document (FSR, SPR, S1BA, S2AA, S3SD, S4PRA), and the approval date.		
Project No.	Project Approval Document: FTB FSR 7730-210	Approval Date: 03-23-2018

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

Prepared By <i>Mary Clark</i>	Date <i>9-24-18</i>	Reviewed By <i>[Signature]</i>	Date <i>9/24/18</i>
Department Director <i>[Signature]</i>	Date <i>9/26/18</i>	Agency Secretary <i>[Signature]</i>	Date <i>10/3/2018</i>

Department of Finance Use Only

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

PPBA <i>[Signature]</i>	Date submitted to the Legislature <i>1/9/19</i>
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Analysis of Problem

A. Budget Request Summary

The Franchise Tax Board (FTB) is requesting \$5.7 million General Fund and \$253,000 Special Funds in 2019-20 and \$12,000 General Fund in 2020-21 and ongoing to refresh the aging equipment and software that is reaching End-of-Life (EOL) and approaching End-of-Service (EOS) within the LAN infrastructure. FTB will also upgrade throughput (speed) to and from the network core from 10Gbps to at least 40Gbps. The overall result of this refresh will reduce the risk that LAN infrastructure components will fail or be compromised and also assure the necessary bandwidth to conduct successful operations and protect FTB's return and refund processing functions and compliance activities.

B. Background/History

Each year, FTB processes more than 19.2 million Personal Income Tax (PIT) returns and 1.9 million Business Entity (BE) returns, responds to more than 2.8 million telephone calls, handles over 18 million Internet contacts, and administers the income tax programs that fund approximately \$103¹ billion of the General Fund – contributing to over 78% of the state's general fund revenue each year. To a large extent, FTB's LAN supports many of these transactions and services.

The LAN infrastructure is the heart of the enterprise network supporting FTB's mission critical operations. The LAN infrastructure provides reliability, network security, and scalability throughout FTB. There are approximately 6,000 FTB staff supported on this network. FTB's LAN supports on average 48 million online transactions conducted by taxpayers and 219,000 batch processes per month which uploads taxpayer specific transactional data to FTB's accounting and compliance systems. Batch processes are large numbers of data transactions that run in "batches" without human interaction.

This project seeks funding to replace aging equipment and software that is EOL and approaching EOS and/or hampered by old, inadequate technologies, to reduce the risk that these items will fail and impact FTB's operations. The programs administered by FTB rely heavily on network, and automated systems. In particular, these activities rely on the LAN infrastructure, which supports:

1. FTB's critical business functions and applications including FTB's return and payment-processing, accounts receivable and audit applications, including Integrated Non-filer Compliance System (INC), Accounts Receivable Collections System (ARCS), Professional Audit Support System (PASS), and Personal Income Tax and Business Entity Tax System. Additional supported systems and activities include hiring, payroll, procurement, budget, security and external reporting functions, as well as, the public self-service applications including CalFile, WebPay, and MyFTB.
2. Reliable and secure network availability for accurate, up-to-date information and systems.
3. Increased throughput (speed) to meet the increased network demands for 2019 and future planned innovations including implementation of Voice over Internet Protocol (VOIP) communication system and Video, and Virtual Desktop Interface (VDI) workforce solution.

C. State Level Considerations

This proposal supports the following FTB strategic plans and goals:

FTB Strategic Plan Goals

#2 - Effective Compliance - "Fairly administer the law to ensure taxpayers file and pay the correct amount."

¹ Revenue figures from DOF 2018-19 May Revise for Fiscal Year 2017-18.

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Strategy 2.3 - Improve data, information, and knowledge sharing with the tax community and government partners.

Industry trends in technology and electronic commerce continue to significantly impact the way FTB conducts its business. The ability to utilize the increasing number of FTB business applications to process returns and refunds, detect and address noncompliance, and properly calculate amounts owed and notify taxpayers of amounts owed, together with taxpayer facing applications; such as the MyFTB Web application, FTB's web site, and the Internet Filing and Internet Refund Status application, all contend for the limited available bandwidth within the current network backbone. Increasing the bandwidth, as proposed, will ensure that the FTB can support these taxpayer-centric programs and applications assuring that FTB has sufficient operating capacity to conduct return and refund processing activities timely as well as compliance activities and that allows taxpayers to have the necessary information to file timely and pay their tax obligation timely, in the correct amount and securely.

#4 - Operational Excellence - "Optimize processes, products, services and resources to better serve our customers."

It is vital to support and keep pace with FTB's growing technologies, programs, applications, and information systems. By replacing equipment at the appropriate time, FTB avoids equipment failures and any associated security vulnerabilities that could burden California with additional outlays.

Strategy 4.3 – Leverage and modernize IT systems and processes to support enterprise business activities, including financial, human resources, and nontax programs.

Strategy 4.5 – Standardize FTB's hardware and software to optimize operations.

The security and availability of current, state-of-the-art infrastructure assures that FTB can provide sound, stable, connectivity to mission critical administrative systems. FTB's infrastructure has increased in size and complexity, and it is critical that the throughput of the infrastructure be scalable to meet the growing needs of FTB operations.

An upgrade of throughput to and from the network core will assure that FTB programs can depend on this infrastructure to securely, reliably, and effectively connect all systems and devices ensuring that operations are not interrupted.

D. Justification

FTB uses state of the art technology to process returns and refunds, provide taxpayers tools and data to self-serve, and to internally leverage the data that it collects, generates, and stores in order to more effectively administer the tax processes, which results in more efficient operations throughout FTB, better customer service, a higher level of transparency, and more revenue collected. These programs and their related applications are processed and supported on a complex and sophisticated infrastructure of local and wide area networks. The degree to which network infrastructure redundancy, efficiency, security, scalability, stability and data integrity can be assured is essential to successfully support the current and proposed mandatory workloads and objectives of FTB.

In addition to FTB's new applications and web development for the Internet, industry trends in electronic commerce continue to significantly impact the way that FTB conducts its business. Furthermore, increased citizen expectations will continue to drive requirements for new, interactive, electronic services, such as the MyFTB Web Application. MyFTB provides tax account information and online services to individuals, business representatives, and tax preparers. These electronic services will have a one-to-many transactional impact on FTB's enterprise network. To understand this one-to-many impact, it must be recognized that every interactive transaction initiated by FTB's customers will generate multiple supporting transactions inside the enterprise network.

Electronic commerce applications are intended to leverage sophisticated features of FTB's mission critical applications and tap into enterprise data warehouses, gleaning essential pieces of data and returning them to the customer. Online services, such as MyFTB, and the applications for FTB's

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internal programs all contend for network bandwidth. In addition, other contenders for the limited available bandwidth within the network include new customer driven applications such as FTB's web site; Internet Filing and Internet Refund Status, network latency sensitive applications, such as Voice and Video Conferencing, along with office automation, workflow engines, administrative support applications and email.

It is vital to support and keep pace with FTB's growing technologies, programs and application/information systems. By replacing equipment at the appropriate time, FTB avoids equipment failures and any associated security vulnerabilities that cost the state money, and therefore, maximize the return on investment for today and into the near future.

The LAN Infrastructure Refresh Project objective is to refresh the existing EOL and EOS network backbone hardware infrastructure, as well as, upgrade throughput. The overall result of this refresh will reduce the risk that these items will fail or be compromised and impact FTB's processing and compliance activities.

The project seeks funding for the following:

- Replace 6 Distribution Core Layer Switches within each FTB central campus building with Cisco Nexus 7706 (or latest available).
- Replace 90 Access Layer Switches with Cisco Nexus 9400 (or latest available) series for both central campus and field offices.
- Upgrade FTB's network backbone-throughput from 10Gbps to at least 40Gbps.

E. Outcomes and Accountability

FTB's mission is to help taxpayers file accurate and timely tax returns and pay the proper amount owed. FTB's LAN infrastructure is the heart of the enterprise network supporting FTB's mission and mission critical operations. The result of this refresh will reduce the risk that LAN infrastructure components will fail or be compromised and also assure the necessary bandwidth is available to conduct successful operations.

This BCP is supported by Feasibility Study Report FTB FSR 7730-210. The management of this project will be the responsibility of FTB's Chief Information Officer (CIO) or a delegate. The fiscal oversight of the resources will be the responsibility of both the CIO and the Chief Financial Officer.

F. Analysis of All Feasible Alternatives

Alternative #1 - Approve \$5.9 million (\$5.7 million General Fund and \$253,000 Special Funds) to replace existing network switches within each FTB central campus building and field offices; and increase FTB's network backbone throughput from 10Gbps to at least 40Gbps.

This alternative will reduce the risk that LAN infrastructure components will fail or be compromised and also assure the necessary bandwidth to conduct successful operations. The refresh expands system/infrastructure performance capabilities that provide a capacity expansion path for growth over a period of eight years. By replacing equipment at the appropriate time, equipment failures, network downtime, and security vulnerabilities can be avoided. This assures that FTB can continue smooth operations and maintain its trustworthy reputation that it has earned over years of operational excellence.

Advantages:

- Allows FTB to position itself for future emerging technologies resulting in an increase in demand for bandwidth, such as voice, video, data, VDI, VOD, IOT, etc.

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- Provides flexibility and agility to add additional services and applications for taxpayers and will increase FTB's options in the event that additional modifications are required or legislatively mandated.
- Securely increases performance and efficiencies to program operations with new network infrastructure functions and features.
- No need to change or redesign existing network architecture.

Disadvantages:

- Introduces inherent risks associated with the refresh/replacement of network Infrastructure components that FTB will need to mitigate throughout deployment.
- Replacing the chassis will extend the schedule to implement.

Alternative #2 - Finance the request over three years. BCP funding request of \$2.3 million in 2019-20 (\$2.2 million General Fund and \$97,000 Special Funds), \$2.0 million in 2020-21 and 2021-22 (\$1.9 million General Fund and \$84,000 Special Funds) to replace existing network switches within each FTB central campus building and field offices; and increase FTB's network backbone throughput from 10Gbps to at least 40Gbps.

This alternative seeks to finance the costs of the hardware. This will allow for the costs to spread over three years at a lower initial amount. FTB estimates that financing the hardware would cost approximately \$285,000 more compared to paying upfront, but would save the state over \$3.6 million in the budget year.

Alternative #3 - Do not approve request.

If the FTB network backbone is unable to support or keep pace with network connectivity and bandwidth demands, users will begin experiencing application issues. These issues may include an application suddenly slowing down or freezing entirely when a user attempts to retrieve or process information from it, due to a failure or bottlenecks within the network backbone. If this begins to occur frequently, it will have a negative impact on a user's ability to carry out job functions. When users are prevented from completing tasks timely and successfully, it decreases the productivity of the department significantly as FTB seeks to meet the needs of taxpayers and California residents and can impact FTB's revenue generating capabilities negatively.

G. Implementation Plan

July 1, 2019: Award contract and prepare wiring purchase order

Central Campus – Phase 1

September 6, 2019 – April 10, 2020: Pre-production preparation, wiring, install distribution core switches and access layer closet switches, scan and certify switches

Field Offices – Phase 2

April 9, 2020 – June 29, 2020: Install access layer closet switches, scan and certify switches

June 30, 2020: Project complete

June 30, 2021: PIER

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H. Supplemental Information

None

I. Recommendation

Alternative #1 is recommended. By replacing equipment at the appropriate time, equipment failures, network downtime, and any associated security vulnerabilities will be avoided. This assures that FTB can continue smooth operations and maintain its trustworthy reputation that it has earned over the years of operational excellence.

