

STATE OF CALIFORNIA
Budget Change Proposal - Cover Sheet
 DF-46 (REV 10/20)

Fiscal Year 2022-23	Business Unit 7730	Department Franchise Tax Board	Priority No. 008
Budget Request Name		Program	Subprogram

Budget Request Description
 Enterprise Storage and Fiber Channel Switch Refresh

Budget Request Summary

The Franchise Tax Board (FTB) requests \$6.5 million General Fund (GF) and \$275,000 Special Funds in 2022-23 to refresh aging equipment and software approaching end of life (EOL) within the enterprise storage system and storage area network (SAN) fiber channel switches (herein referred to as storage and switches). The overall result of this refresh will reduce the risk of failure and ensure the necessary bandwidth to conduct successful operations and protect FTB's tax compliance systems and processes.

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 No	Code Section(s) to be Added/Amended/Repealed	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	Date

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: _____
 Approval Date: _____

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

Prepared By	Date	Reviewed By	Date
Department Director	Date	Agency Secretary	Date

Department of Finance Use Only

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

PPBA	Date submitted to the Legislature
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A. Budget Request Summary

The Franchise Tax Board (FTB) requests \$6.5 million General Fund (GF) and \$275,000 Special Funds in 2022-23 to refresh aging equipment and software approaching end of life (EOL)¹ within the enterprise storage system and storage area network (SAN) fiber channel switches (herein referred to as storage and switches). The overall result of this refresh will reduce the risk of failure and ensure the necessary bandwidth to conduct successful operations and protect FTB's tax compliance systems and processes.

B. Background/History

FTB is responsible for administering the income and franchise tax laws for the State of California. Each year, FTB processes more than 22.5 million tax returns, 12.5 million payments, issues 14.6 million refunds to California's residents, and conducts compliance activities to collect the proper tax amount owed to the State. As a result of these efforts, in fiscal year 2019-20, the department was responsible for administering programs that brought in \$92 billion, which is 74 percent of the General Fund revenue². The General Fund is utilized to fund critical services across the State including education, safety and welfare programs, and law enforcement. FTB's storage and switches supports these transactions and services.

As reflected in Attachment I, FTB's SAN is a specialized, high-speed network that provides network access to storage utilizing fiber channel switches for data transportation. It provides secure data transportation between servers and enterprise storage systems. SAN is composed of switches, storage elements, and storage devices that are interconnected.

These environments support FTB's mission critical applications. One of the main components within the SAN, is the fiber channel switch. It plays an important role in interconnecting multiple storage ports and servers. FTB's current fiber channel switches and software were installed in 2015 and must be replaced as they are reaching EOL. The switches will not have standard manufacturer support after July 2022. However, the manufacturer will support the EOL switches during the migration and installation process for the new switches which will maximize return on investment and prevent the need for a long-term support contract. FTB seeks funding to replace the aging fiber channel switches and software to reduce the risk of failure which would negatively impact FTB's operations. FTB will also update the storage port and servers in this project.

C. State Level Consideration

FTB's storage and switches support all non-mainframe applications and FTB's mission to help taxpayers file tax returns timely, accurately and pay the correct amount to fund services important to Californians and the strategic goals.

Goal 1: Exceptional Service states "Strive to continuously enhance our customers' experience." FTB's storage and switches are one of the key channels supporting customer needs. It 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.

Goal 4: Operational Excellence states "Optimize our processes, products, services, and resources to better serve our internal and external customers." It is important 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.

¹ When equipment reaches end of life (EOL), manufacturers will no longer provide emergency or non-emergency technical support, technical and security patches, or software and firmware upgrades. Also, parts for the equipment and whole replacements of equipment will be unavailable.

² Revenue figures based on the 2019-20 Cash Report reported in the Department of Finance's July 2020 Finance Bulletin. Due to the filing extension of April 15, 2020 to July 2020, the total revenue collected was lower than previous years.

- Strategy 4.3: Leverage and modernize IT systems and processes to support and improve business and administrative activities.
- Strategy 4.5: Standardize and modernize FTB's hardware and software to optimize operations.

The storage and switches refresh aligns with FTB's Information Technology Strategic Plan 2021-2025. The refresh provides flexibility, reusable resources scalable to changing infrastructure needs, and value through standardization and IT modernization. It also provides infrastructure resources to develop FTB's automation platforms.

This particular replacement mitigates emerging and evolving threats to manage risks and protect customer privacy and security, and modernizes our hardware and software to optimize operations while preventing system failure due to outdated and unsupported hardware and software.

D. Justification

The storage and switches are nearing EOL and require a complete refresh. The refresh provides updated hardware components, addresses software security compliance, improves performance by doubling throughput, and mitigates against the risk of failing hardware.

The storage and switches are crucial to maintaining FTB's core business functionality. Degradation cripples business applications and failure prevents a business from performing day-to-day workloads. This could reduce timely processing of tax returns, payments, and refunds; disrupt daily bank deposits to the General Fund and/or taxpayers' accounts; and cause loss or delay of services to taxpayers.

The refresh will mitigate against the following:

Infrastructure Risks:

- Aging technology increases risk of hardware failures;
- Diminished recovery time in the event of a SAN outage;
- Unsupported hardware by manufacturer as product is end of life;
- Inability to accommodate infrastructure storage resource growth; and
- Risk of security non-compliance due to unsupported and/or un-patchable security vulnerabilities found in older versions of software.

Business Risks:

- Failures in public-facing digital applications and databases;
- Failures in FTB's tax compliance systems and workloads;
- Inability to service the public without access to storage systems containing taxpayers' confidential data/information; and
- Failure to protect confidential taxpayer data due to un-patchable software.

E. Outcomes and Accountability

The results of the storage and switches refresh, prior to EOL, allow for a reduced risk of compromised infrastructure components that fail and do not have manufacturer support for repair. This purchase will modernize the storage and switches to today's industry best-practice standards. Benefits include better performance and hardware with newer chipset technologies which provides a 260% improvement. The refreshed hardware also provides self-learning and self-healing capabilities which will improve service level agreements and prevent connectivity issues.

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: Provide one-time BCP funding of \$6.8 million in 2022-23, \$6.5 million in General Fund and \$275,000 in Special Fund, to purchase storage and switches.

This proposed solution will replace the underlying hardware required for secure data transportation within the system. This alternative will reduce the risk of storage and switches failure or compromise. Replacing equipment at the appropriate time will also mitigate against downtime and security vulnerabilities. This ensures FTB will continue smooth operations.

The hardware is needed in FTB's technology recovery plan by providing storage resources to the servers and allowing them access to the data needed to rebuild and maintain FTB's services in the event of a disaster.

Alternative 2: Finance the costs of the SAN fiber channel switches and storage refresh project.

Finance the request over 3 years. BCP funding request of \$2.69 million, \$2.27 million in General Fund and \$91,000 in Special Fund, in FY 2022-23 and each subsequent year through 2024-25 to replace existing SAN.

This alternative seeks to finance the costs. This will allow for the costs to spread over 3 years at a lower initial amount. FTB estimates that financing would cost approximately \$109,000 more compared to paying upfront, but would save the state over \$4.0 million in the budget year.

Alternative 3: Do not approve.

If the proposal is denied, the risks of non-supported hardware and software include system outages, lack of manufacturer support, potential loss or corruption of sensitive data, and longer recovery time to FTB's infrastructures services. Only extending hardware maintenance is not a viable option as software will not be updated which creates security vulnerabilities. This alternative will not address the EOL of the aging storage and switches.

G. Implementation Plan

- June 2022 – Department of Finance notifies FTB of approval for project resources
- July 2022 – Bid and award procurement contract including gap coverage for product support through project implementation
- August 2022 – October 2022: Prep work: includes power, wiring, and other data center requirements. Review Logical configuration and verify new topology
- November 2022 – February 2023: Configure, install, and cutover, Includes verification and stabilization
- March - April 2023 – Final verification, begin M&O, and project closure

H. Supplemental Information

None

I. Recommendation

Alternative 1: Provide one-time BCP funding of \$6.8 million (\$6.5 million General Fund and \$275,000 Special Funds) in 2022-23, to purchase storage and switches. Replacing equipment at the appropriate time will avoid equipment failures, network downtime and any associated security vulnerabilities. This assures that FTB will continue smooth operations and maintain the trustworthy reputation that it has earned over the years of operational excellence.