

Memorandum

To : Mr. Ramon J. Hirsig
Executive Director, MIC:73

Date : August 29, 2008

From : 
Anna Brannen, Chief Information Officer
Technology Services Division, MIC:26

Subject : **Board Meeting – September 16, 2008**
Digital BOE: Our Initial Roadmap to Becoming Digital

As we discussed, I would like to present the paper *Digital BOE: Our Initial Roadmap to Becoming Digital* to the Board at its September meeting. This item is informational only and will not require an action of the Board.

Because I am briefing the Board Members on the digital BOE concept prior to the meeting, the presentation will provide a brief overview of the paper's background and I will summarize the findings and recommendations. In addition, I will report the current status of the project and proposed milestones.

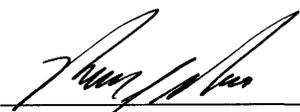
With your approval, the topic will be placed on the September 16, 2008 Administrative Agenda Calendar under Deputy Director's Report, Technology Services.

Thank you.

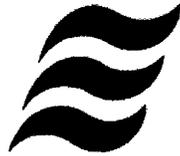
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Approved:



Ramon J. Hirsig
Executive Director



California Board of Equalization

Digital BOE:

***Our Initial Roadmap to
Becoming Digital***

August 2008

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1. Abstract

Successful business organizations operate according to well established policies, practices, and procedures that have matured over time. These operating methods usually reflect the best practices of the day and incorporate the technologies which were prevalent at the time they were developed. Although conscientious management are alert to process improvements, enhancements tend to be at the margin. Rarely are there motivations or resources for fundamental redevelopment. From time-to-time, however, events conspire to afford the chance to re-think basic business processes. This is such a moment for the Board of Equalization (BOE).

A progressive Board, an enlightened management, a demanding taxpayer constituency, and severe pressure on resources have provided BOE with a rare opportunity to examine the way it conducts business. Capturing information in digital form, reducing reliance on paper, and breaking the link between information and its physical location are fundamental elements of improving business operations. Implementation of these elements is the first step in attaining BOE's digital office vision, which we call "digital BOE."

This paper presents a plan and sets forth a roadmap to move BOE along a path toward attainment of the digital BOE vision. The vision encompasses long-considered improvements to BOE's operations. Modern information technology (IT), and the knowledge gained from its applications in other state agencies (including the Franchise Tax Board and the Employment Development Department), convinces us that the concept of a digital office is a goal that can be realized. Taxpayers, staff, and other stakeholders will have access to information they need to accomplish their work – any way, any time, any place.

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2. Introduction

The purpose of this paper is to provide a plan, a “roadmap”, for moving BOE to a digital office environment. Significant workload and current facility issues, together, represent both a need and an opportunity to develop short and long-term plans to address immediate requirements and facilitate the continuing effort to move BOE down the path of increased efficiency and improved service to customers and other stakeholders. In that regard, this paper includes specific recommendations within which current issues can be addressed and presents a pathway for creating a digital environment that provides staff and other stakeholders access to information they will need to accomplish their work – any way, any time, any place.

The intent of this paper is to provide the basis for informed consideration of its recommendations. This paper has been structured to meet the needs of individual preferences; for example, some readers are not interested in “technical” information or charts of data, while others are. Consequently, an effort has been made to keep the body of the paper relatively free of information of a more technical nature by placing such information in appendices that are referenced in the main narrative.

A broad group of individuals contributed information to the development of this paper. The individual participants are listed in Appendix A.

This paper draws in part on various BOE-created documents, as well as documents produced outside of BOE. In some instances, verbatim extracts from those documents are included. While such extracts are not footnoted, Appendix B lists key documents used in the development of this paper.

As this paper demonstrates, BOE operations are paper-intensive and therefore costly. Clearly, moving away from paper through the use of digital technology that captures images and data will help the board reduce facility space requirements and operating costs, streamline processes, increase employee productivity, and establish a platform for improving taxpayer services. Added incentive for pursuing this process is provided in a June 12, 2008, analysis by the Chief Counsel, which finds that BOE may use digitalized images in lieu of the original paper documents and may legally destroy the original source documents.

The information contained in this paper provides a basis for decision-making regarding short, middle, and long-term opportunities that address current business and operational “drivers” and a longer-term strategic vision for a digital BOE. However, the information contained in this paper should *not* be construed to represent the essence of a Feasibility Study Report (FSR). This paper does not reflect a comprehensive approach to solving BOE’s myriad challenges regarding the creation, handling, storage, and disposal of paper and paper-related physical records. On the other hand, this

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paper contains information that could be used in support of one or more FSRs, should such be determined as necessary.

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3. Executive Summary

3.1 Overview

A progressive Board, an enlightened management, a demanding taxpayer constituency, and severe pressure on resources have provided BOE with a rare opportunity to examine the way it conducts business. This paper describes logical steps, a “roadmap”, to change from the current way of doing business to a better way of doing business by moving BOE along the path toward attainment of a digital BOE.

A digital BOE encompasses the capture of information in digital form, either through e-filing or scanning and imaging; reduced reliance on paper, and a break in the link between information and its physical location. Each of these is a fundamental element in the improvement of business operations.

The larger vision encompasses long-considered improvements in BOE operations. Thanks to modern IT and the knowledge gained from the use of this technology by other state agencies such as the Franchise Tax Board (FTB) and the Employment Development Department (EDD), a paperless digital office is a vision that can be realized. Implementing the vision will provide BOE staff, taxpayers, and other stakeholders immediate or near immediate access to information they need to accomplish their work, and to do so any way, any time, and any place.

While providing a roadmap to a vision of working any way, any time, and any place, this paper also includes a number of recommendations with relatively immediate results. Importantly, these very near-term efforts provide a foundation for the longer-term vision. For example, this paper recommends development of a plan to scan and image several hundred boxes of Legal Department paper records that are currently offsite and will be transferred back to BOE’s headquarters building in late 2008. This effort could also provide infrastructure applicable to all BOE departments, by establishing an indexing standard for scanned documents, a fundamental requirement for an imaging system.

It is important to note that the adoption of the digital office concept will not immediately eliminate all paper. There will be many taxpayers who will not take advantage of electronic services (e-file), preferring to rely on paper for economic and other reasons. However, the experience of other state agencies indicates that BOE’s implementation of digital office processes should result in improved paper handling, more efficient facilitation of future relocation efforts, and improved responsiveness to customer and stakeholder needs.

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Nevertheless, the need to reduce the growing mass of paper impacting BOE operations, a need made more critical by the scarcity of space for BOE staff in the headquarters building, provides a strong argument for an aggressive, but considered, plan to take steps that will lead to the realization of the virtually paperless digital office.

BOE's master plan will be guided by several business principles

- The BOE will explore and consider "best practices" and models in the development of the master plan.
- The BOE's preferred method in conducting business and communicating with taxpayers will be through electronic means, recognizing that not all taxpayers may be ready for these methods.
- The BOE staff should be provided the ability, through electronic means, to quickly access taxpayer information, whether in response to taxpayer queries or for other board purposes.
- The BOE will be able to conduct its business operations any way, any time, and any place.
- When documents are scanned in most cases, BOE will shred the original paper in conformance with legal requirements and automate the routing of the scanned images.
- The BOE will reduce significantly the use of hard copy internal working papers.
- The BOE will maximize sharing of information with its sister tax agencies, counties, cities, and local taxing jurisdictions and their constituency through the use of digital information.
- BOE will maintain integrity and confidentiality when sharing documents with sister tax agencies and ensure the security of all digital information.
- BOE will factor concerns for environmental stewardship into the development of the digital office vision.

These and other business principles are discussed in more detail in Section 5 of this paper.

3.2 Summary of Findings

This paper finds that BOE must:

- **Reduce Facilities Costs**
 - The General Fund situation, which may be problematical for some time, will increase pressure on the BOE in terms of cost control.
 - The BOE is paying a premium to store paper in the headquarters building, space that could be better used to house staff.
 - The dependence on paper limits the ability of BOE employees to work from multiple locations, resulting in an inefficient use of current office facilities.
- **Reduce the Cost of Processing Paper**
 - E-file and scanning and imaging complement each other. Both are elements of digital BOE. There is no one best solution to BOE's paper problem.
- **Reduce Processing Time and Achieve Operational Efficiency to Improve Customer Service**
 - The allocation process by which BOE disburses sales and use taxes to counties, cities, and special taxing jurisdictions is a paper-based and lengthy procedure. Currently, the allocation schedules are handled multiple times before the allocation process is completed.
 - Smaller units within BOE (e.g., organizations in the Property and Special Tax Department) have realized significant benefits by scanning documents. These benefits include better services to those requiring information contained in the imaged records.
 - Both EDD and FTB have implemented effective scanning and imaging applications, and therefore either department is considered a likely partner with BOE in support of BOE efforts to apply scanning and imaging technology.
 - Although BOE can leverage previous state investments by considering both EDD and FTB as viable potential service providers, there are differences in

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how the two departments manage the processing of returns. The BOE must carefully consider the differences in evaluating the feasibility of contracting with either of those departments to provide services to BOE.

- Improving BOE operations through the increased reliance on IT will improve the ability of employees to conduct their work; however, careful planning will be required to assure that employees, and their labor unions, are kept apprised of plans affecting them and given an opportunity to provide ideas and suggestions to assist BOE planning efforts.
- Continuing to microfilm is ineffective. Microfilm technology is considered outdated. Its use should be limited to those cases for which the investment to scan or image cannot be justified.
- ***Reduce the Float Time for Checks***
 - Current front-end manual processing of taxpayer returns limits BOE's ability to deposit some payments as quickly as other State tax agencies. The situation is aggravated when a taxpayer uses non-standard forms and envelopes ("white mail").
- ***Improve Data Security***
 - The use of electronic images instead of paper will enhance BOE's information security capabilities. Electronic files of images can be secured in multiple ways, including passwords, user-levels, access capabilities (for example, read-only), and other user-based approaches.
- ***Improve Continuity of Business Operations***
 - Achieving the BOE digital office vision of working any way, any time, any place would enable BOE to continue to conduct business even if there are disruptions to facilities like those that have occurred recently with the headquarters building.

Section 7 of this paper provides a full discussion of the findings.

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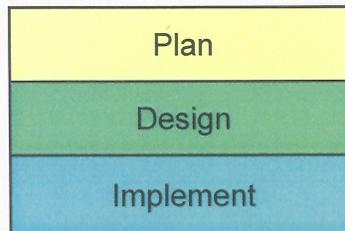
3.3 Summary of Recommendations

The findings in the previous section and other analyses of BOE's paper management workload generated recommendations, based upon a phased approach.

For our very preliminary rough estimates of costs, we used the following ranges:

- Low – Under \$250,000
- Moderate – \$250,000 - \$1,000,000
- High – Over \$1,000,000

The recommendations, by phase, are described below. The recommendations are color-coded in the following three groups, indicating the nature of the effort required:



3.3.1 Phase I, Fiscal Year 2008/2009

Recommendation 1: Develop a BOE Indexing Methodology

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency; and Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low

Description: An enterprise-wide methodology is required for BOE's business needs and could also be used to facilitate collaboration with sister tax agencies with respect to compliance with, and enforcement of, tax law. Given the importance of indexing, BOE should consider hiring a scanning and imaging consultant to assist in the development of this methodology.

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Recommendation 2: Develop Architecture and Standards for Technologies in the Digital Office

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low to Moderate

Description: Although scanning and imaging have been used in various BOE departments, each application is unique because there is no agency-wide approach. An enterprise approach to “architecture” and standards is required. The previous recommendation – regarding an indexing methodology – would, when implemented, provide a key standard; however, other standards must also be developed. For that reason, it is recommended that the Technology Services Division (TSD) lead an agency-wide effort to determine the technical architecture and standards (other than indexing) for scanning and imaging.

Recommendation 3: Implement the Legal Department Pilot Project

Drivers Addressed: Reduce Facilities Costs

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Moderate

Description: The Legal Department is scheduled to return to the headquarters building later this calendar year. This move will include at least 400 and possibly as many as 600 boxes of records. The relatively small size of the Legal Department, including the number of paper records in its possession, makes it an ideal candidate for a digital BOE pilot project. Moreover, the Legal Department has expressed an interest in being a pilot project participant.

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Recommendation 4: Develop and Implement a “Scan on Demand” Capability Plan

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency;
Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Moderate

Description: It will take time and careful analysis and planning to achieve a digital BOE. In the meantime, very real needs for managing paper must be met. One way to address these needs in the relatively short term is to implement a “scan on demand” capability. “Scan on demand” refers to a process whereby a paper document is photographed and placed into a database of images on a server. For example, when a paper record maintained in taxpayer record files is requested by an employee in the course of his or her work, the information would be scanned and imaged. Doing so would provide an alternative to an effort to scan and image *all* taxpayer records, which would be a very large undertaking. Because “scan on demand” would allow a timely conversion of paper records to electronic records, it is recommended that the concept be implemented in Fiscal Year 2008/2009 during Phase I.

Recommendation 5: Coordinate BOE Efforts to Ensure Focus on Taxpayer Needs

Drivers Addressed Reduce Processing Time and Achieve Operational Efficiency;
Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low

Description: The digital BOE project should partner with the e-file program and other efforts to ensure all BOE efforts are focused on attaining BOE’s vision of service to our taxpayers in a manner that meets their business needs any way, any time, and any place.

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Recommendation 6: Develop Plans for Pilot Projects

Drivers Addressed: Reduce the Costs of Processing Paper; Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service; Improve the Float Time for Checks

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low

Description: The BOE has discussed with FTB and EDD the possibility of a contractual arrangement whereby BOE would receive front-end return processing services. Both departments have indicated an interest in providing such services. The primary appeal of such an arrangement is that it would allow BOE to avoid “reinventing the wheel” by leveraging the investments made, and practical experience obtained, by FTB and EDD. It is therefore recommended that BOE define two pilot projects – one with FTB and the other with EDD, develop project plans, develop associated evaluation criteria, and negotiate costs and service level agreements, for each pilot project. Service levels should meet or exceed current levels experienced by BOE. The data captured in the pilot projects will form a basis for determining whether BOE’s needs can be best served through a continuing contractual arrangement with either FTB and/or EDD. It is further recommended that one of the pilot projects focus on multiple location Sales and Use Tax accounts, because the current allocation process is paper based and cumbersome. Using an image of a return will allow several staff to work on the return at the same time. Parallel processing will expedite the allocation process.

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Recommendation 7: Develop Plan to Enhance Existing Document Scanning Processes

Drivers Addressed: Reduce the Costs of Processing Paper; Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low

Description: Develop a plan to modify Property and Special Taxes Department (PSTD) document scanning processes to enable the use of images for return/filing exception processing. With a single exception, PSTD tax and fee programs currently scan documents at the end of the processing cycle. Significant efficiencies are expected if the documents are scanned or imaged in the early stages of (or prior to) the processing cycle so that the electronic images can be used (rather than paper) during processing.

Recommendation 8: Develop Microfilm Migration Strategy

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency; and Improve Customer Service

Timeline: Phase I, Fiscal Year 2008/2009

Costs: Low

Description: Microfilming technology is rapidly becoming outdated. Over time, it will be increasingly difficult and more expensive to maintain microfilming equipment. It is recommended that BOE initially develop Sales and Use Tax Department (SUTD) microfilm migration strategies. During Phase I, BOE should develop required project approval documentation that includes business analysis, alternatives, and costs. A project plan for migrating from microfilm should be developed.

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3.3.2 Phase II, Fiscal Year 2009/2010

Recommendation 9: Implement the Pilot Projects with EDD and FTB

Drivers Addressed: Reduce the Costs of Processing Paper; Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service; Improve the Float Time for Checks

Timeline: Phase II, Fiscal Year 2009/2010

Costs: TBD

Description: During Phase II, the pilot projects with EDD and FTB that were planned in detail in Phase1 should be executed.

Recommendation 10: Implement Microfilm Migration Strategies

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service

Timeline: Phase II, Fiscal Year 2009/2010

Costs: Low to Moderate

Description: During Phase II, the plan to migrate from microfilm, developed in detail in Phase I, should be implemented.

Recommendation 11: Implement Plan to Enhance Existing Document Scanning Processes

Drivers Addressed: Reduce the Costs of Processing Paper; Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service

Timeline: Phase II, Fiscal Year 2009/2010

Costs: Moderate

Description: Implement the plan developed in Phase I to modify PTSD document scanning processes to enable the use of images for return/filing exception processing.

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Recommendation 12: Develop Plan for BOE Digital Office Phase III

Drivers Addressed: All

Timeline: Phase II, Fiscal Year 2009/2010

Costs: Low to Moderate

Description: Complete the analysis/evaluation of all Phase I/II efforts, including the pilot projects, and define projects to continue the migration of BOE to the digital office vision. If warranted, develop project plans, negotiate costs, define service level agreements, and develop evaluation criteria with EDD and FTB.

The outcome of Phase I/II should provide sufficient data and information to enable BOE to plan a number of well-defined projects; for example, modernizing the tax allocation process throughout the enterprise. Based on the outcome of the pilots, BOE should consider the following combination of activities:

- **Benefits-Based Procurement.** The BOE should evaluate the potential for utilizing a procurement approach consistent with state laws and policies wherein the contractor shares in whatever benefits are achieved (for example, cost savings and increased revenue) in exchange for shouldering the initial investment in the solution.
- **Explore opportunities to partner with other tax agencies in a project to streamline and digitize mailroom, cashiering, and data entry functions.** The solution must be a comprehensive plan based on the previous year's efforts that addresses staff and labor considerations, the needs of the other tax agencies, and service levels to BOE taxpayers.

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3.3.3 Phase III, Fiscal Year 2010/2011

Recommendation 13: Consolidate Document Repositories

Drivers Addressed: Reduce Processing Time and Achieve Operational Efficiency; Improve Customer Service

Timeline: Phase III, Fiscal Year 2010/2011

Costs: Moderate to High

Description: The BOE has over the years implemented a number of stand-alone imaging applications. Consolidation of the document repositories resulting from these applications is a necessary component of a BOE enterprise-wide document management infrastructure.

Recommendation 14: Implement BOE Digital Office Phase III Projects

Drivers Addressed: All

Timeline: Phase III, Fiscal Year 2010/2011

Costs: Moderate to High, depending on procurement approach and scope of effort

Description: Based on the work done in FY 2009/2010, BOE should aggressively pursue the implementation of the digital BOE vision.

Section 8 of this paper provides a full discussion of the recommendations.

The need for effective change in the manner in which BOE operates has never been more critical. At the same time, the opportunity to address headquarters building issues, as well as make drastic improvements in business operations by leveraging proven IT has never been more attainable. With careful and well thought-out planning, BOE has the potential to become more efficient and cost-effective, while at the same time improving service to customers and stakeholders. The BOE management, with board approval, is prepared to move expeditiously to implement the recommendations contained in this paper, and, in doing so, increase the level of service to board customers and stakeholders.

4. Background

The BOE staff process tons of paper annually in the conduct of BOE operations. This paper comes in a variety of forms and is generated both externally and from within BOE. The processing of this paper, including handling, copying, storage, retrieval, distribution, and disposal, is labor intensive and therefore costly.

Costs include not only labor for paper processing, but also the cost for storing paper as described below:

- It is estimated that in the headquarters building alone, taxpayer file storage consumes approximately 15,150 square feet of floor space on the 11th floor. This is floor space that could be used to house revenue-generating staff. The significance of this amount of headquarters floor space devoted to the storage of taxpayer files is underscored by the fact that the building, designed to hold 1,900 (optimal) to 2,200 (maximum) employees, currently houses approximately 2,500 employees which includes employees temporarily relocated.
- It is estimated that BOE could save approximately \$130,000 annually in future West Sacramento office space rental fees for the Sales and Use Tax Department headquarters files alone if it were able to eliminate paper records through the implementation of electronic imaging processes. Over time, BOE would realize additional savings by eliminating transportation costs associated with moving paper files to and from West Sacramento.
- Some of BOE's paper is stored offsite at the State Retention Center and the Department of General Services (DGS). The BOE pays for such archival storage based on a formula that includes the amount of filing cabinet space located within board facilities. For the current fiscal year, the board will pay DGS \$46,194 for archival storage.

4.1 Paper Flow

Appendix C illustrates how incoming paper flows through BOE Tax return/filing processes. It provides an example of the many handling steps required of employees to process incoming paper. Although mechanized techniques are employed where possible, much of the processing work entails handling by employees.

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4.2 EDD and FTB Imaging Projects

In the mid-1990s, EDD and FTB each embarked on the implementation of major projects focused on the electronic scanning and imaging of paper documents in order to manage their tax processing operations more efficiently and effectively. The resulting systems yielded economies and improvements in service. In 1998 in its effort to realize similar benefits through the use of modern and proven technologies, BOE was poised to begin the Return Processing Automation Project (RPAP).

The project represented a major mailing, scanning, and imaging undertaking. Like EDD's scanning and imaging project, the RPAP was intended to produce benefits, primarily in the form of position savings that would fund the implementation effort. Although the Board approved the Feasibility Study Report for the project, concern with collective bargaining issues resulted in the project's cancellation.

4.3 Independent Approach at BOE

Since that time, while no major scanning and imaging project has occurred at BOE, there have been several disparate scanning and imaging systems implemented for various BOE programs. In fact, with few exceptions (and those exceptions are in the largest programs), almost every BOE division conducts some form of scanning and imaging. For the most part, these efforts have been implemented independently with little coordination and limited collective vision of a digital BOE.

4.4 Improving Operations through Technology

At the same time, Board Members, BOE's administration, and outside interests have expressed a desire to improve BOE operations through the application of modern technology. A January 2005 report by the Legislative Analyst's Office (LAO) noted that with the exception of Electronic Fund Transfer (EFT) remittances, there had been little development of electronic or imaging techniques used in BOE workload processing, despite the potential for cost benefits resulting from increased processing efficiencies. The LAO's report also cited the potential for additional revenue generation resulting from improved compliance and enforcement activities that would be made possible if the three California state tax agencies could better share information electronically. In reviewing the operations of the three tax agencies, the LAO's report noted the unique complexity of BOE's varied workload, and the resulting labor intensiveness of BOE processing activities.

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4.5 Improving the Use of e-Filing

Over the last few years, Board Members have directed BOE to implement significant improvements in BOE operations, derived through increased use of taxpayer transactions conducted via e-filing and other electronic processes. In support of this goal, the Legislature appropriated funds in the Budget Act of 2007 for the current e-services project (the e-Filing Infrastructure Project), with the intent that the funds be used to improve the state's efficiencies in tax administration. However, despite various efforts to increase utilization of more efficient processes, the current e-filing participation rate of 3.5 percent has not allowed for the full realization of savings anticipated by the Legislature. Consequently, the Board announced in June, 2008, its most recent effort to improve e-filing usage by phasing out paper forms used by more than 90,000 businesses to file their tax returns. The e-file transition plan goal is to achieve 25% to 50% participation.

4.6 Director's Commitment

The BOE Director is committed to improving BOE operations through better use of technology, envisioning a "digital BOE" that will not only produce operational efficiencies, but better serve taxpayers, local partners, and other stakeholders by speeding up transaction processing and reducing the time required to obtain and share information. In this regard, the Director has asked the Technology Services Division to lead an effort to develop an agency-wide vision for a digital BOE. This paper reflects that effort.

Finally, while there has been a long-standing interest in modernizing BOE workload processing through the application of IT, relatively recent significant issues with the headquarters facility have added impetus to efforts to improve operations.

5. Business Principles

The master plan for the design and implementation of the BOE digital office will be based on several distinct business principles. In essence, these business principles are clearly written expressions of the principles that guide employees in the conduct of BOE's business. They also serve to educate taxpayers, local government, and others as to the specific objectives and commitments of BOE. An organization's business principles, and the degree of adherence to them, help to shape the organization's reputation.

The business principles that will comprise the foundation for the vision of the BOE digital office are grouped in the following categories, with some of the principles listed more than once because they are applicable to more than one category.

5.1 *Principles re: Taxpayer e-Government*

- The BOE will explore and consider "best practices" and models in the development of the digital BOE master plan.
- The BOE's preferred method in conducting business and communicating with taxpayers will be through electronic means.
- The BOE will maximize its use of the Internet.
- The BOE will maximize sharing of information with its sister tax agencies, and local municipalities and their constituencies through the use of digital information.
- The BOE will maintain integrity and confidentiality when sharing documents with sister tax agencies and ensure the security of all digital information.

5.2 *Principles re: e-Documents*

- The BOE will explore and consider "best practices" and models in the development of the master plan.
- The BOE recognizes that transitioning all taxpayers to electronic methods of interaction will take time and may never reach the goal of 100 percent. herefore, BOE will utilize technology to digitize the contents of paper documents at the earliest possible point in its processes.
- In most cases when documents are scanned, BOE will shred the paper and automate the routing of the scanned images.

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- The BOE will significantly reduce its use of hardcopy internal working papers.
- Electronic imaging will replace most film-based capture and storage of images.
- The BOE will be able to operate any way, any time, and any place.

5.3 Principles re: Availability of Staff Work Products

- The BOE will explore and consider "best practices" and models in the development of the digital BOE master plan.
- The BOE will provide its staff the ability, through electronic means, to quickly access taxpayer information, whether in response to taxpayer queries or for other board purposes.
- The BOE will significantly reduce its use of hardcopy internal working papers.
- The BOE will be able to conduct its business operations regardless of the state of its facilities.
- BOE will factor concerns for environmental stewardship into the development of the digital office vision.
- The BOE will be able to operate any way, any time, and any place.

5.4 Principles re: Process Improvement

- The BOE will utilize similar processing methods as other state agencies to process checks the same day they are received.
- The BOE will minimize the use of its facilities to store paper.
- The BOE will be able to conduct its business operations regardless of the state of its facilities.
- The BOE will leverage optical character reader (OCR) capabilities at other state agencies to digitalize paper flow, particularly for return processing.
- The BOE will create and maintain an enterprise IT architecture and standards for a "digital BOE" that encompass scanning and imaging technologies, sufficient storage for electronic images, and the network capacity necessary to access electronic files.
- If BOE partners with another state agency as part of its process improvement efforts, BOE will be knowledgeable of its partner's operations before and during a partnership arrangement. In other words, BOE will be a "smart" consumer.
- BOE will factor concerns for environmental stewardship into the development of the digital office vision.

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- The BOE will maximize sharing of information with other state tax agencies, and local municipalities and their constituencies through the use of digital information.
- The BOE will maintain integrity and confidentiality when sharing documents with sister tax agencies and ensure the security of all digital information.

A primary measure of the success of these business principles will be the ongoing reduction in the amount of paper that BOE purchases, produces, processes, stores, and routes internally. Other significant measures of success include a reduction in operational costs, improved service to customers, better and faster analyses of information and data maintained in BOE files, and the degree to which work performed by employees is facilitated.

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6. Drivers

Given that BOE has had to manage an ever-increasing paper workload for decades, and that IT solutions for effectively managing BOE's workload have been in existence for many years, it is logical for one to ask, "Why now?" What are the factors driving the effort to implement the concept of a digital BOE office?

The answer is threefold: (1) current and projected continued General Fund issues put pressure on BOE to reduce its cost of doing business; (2) experience gained by "sister" tax agencies and current technological capabilities will facilitate major improvements in BOE operations; and (3) headquarters building issues are critical and addressing the paper issue is a part of the solution. Together, these factors represent both the need for substantial improvements and the opportunity to do so.

6.1 Current Drivers

6.1.1 Facilities

The current situation with BOE's headquarters building provides an important motivation to improve operations through the implementation of a "digital BOE." Issues with the headquarters facility have caused significant disruptions to BOE's business operations, including the relocation of the board's legal office to a Franchise Tax Board facility in Rancho Cordova. The legal office has experienced some loss of productivity because important legal documents have been more difficult to access the remote location.

One action planned to address the impacts of facility issues is the imminent relocation of the Taxpayer Records Unit (TRU) to an offsite facility in West Sacramento. This relocation will free-up approximately 15,150 square feet of space now used for records storage. As noted earlier, the significance of the amount of headquarters floor space devoted to the storage of taxpayer files is underscored by the fact that the building, designed to hold 1,900 (optimal) to 2,200 (maximum) employees, will house approximately 2,500 employees when the legal office returns.

Although the transfer of the TRU addresses some of the headquarters space concerns, the relocation of headquarters records to West Sacramento raises other issues. TRU records are active files that must be accessible to headquarters and field office staff. TRU will provide this access via internal courier service, fax, and possibly other methods. However, these methods for providing documents from the remote location will inevitably result in additional costs,

6.2 *Mid and Long-Term Drivers*

6.2.1 Reducing Facilities Cost for Paper Storage

The implementation of a document imaging system to support digital BOE will allow the board to eventually reduce its facilities costs and realize a net cost savings, because space occupied by paper files will be freed for better uses. Paper storage creates the need for structural reinforcement in office space to handle the weight of the paper. BOE would have greater flexibility in acquiring future office space if the requirement to store paper was greatly reduced or eliminated. This driver is especially important because of the General Fund situation.

6.2.2 Reducing the Cost of Processing Paper

It is projected that the implementation of the e-file transition plan will reduce Sales and Use Tax paper returns by 25 – 50% over the next two years. Given these projections, BOE can expect to receive 50 – 75% of the returns in a paper format. After start-up costs, automating return processes through e-filing and digital imaging can produce cost savings of approximately \$8 million per year.

The above savings focus only on returns. The BOE also receives additional types of paper documents requiring processing. One commercial vendor of document imaging solutions estimates that an organization can reduce overall document-related costs by 40% through the implementation of a document imaging system.

Implementing digital BOE would certainly move the board much closer to the goal of a paperless office, but that goal would not be reached until such time as all those who must interact with BOE are able and willing (or mandated) to do so via electronic means. Nevertheless, reducing the cost of processing paper is a major driver because the board's cost of processing paper has been on a continuous rise over time and currently there is increased competition for scarce General Fund resources, with no relief in sight.

6.2.3 Reducing Processing Time

The old adage “time is money” applies to the amount of time required at BOE, at present, to process paper. Staff are hampered in their efforts to perform their work because they must contend with a paper-driven system that delays the point in time when they can access information they need to complete a transaction or respond to a query. As a result, BOE is forced to pay the cost of an inefficient system.

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6.2.4 Improving Customer Service

The BOE has had a long-standing commitment to the provision of good customer service; however, many BOE processes limit the organization's ability to respond to customer needs in a timely manner. This is frustrating to taxpayers and others who need to communicate with board staff. It is also frustrating to internal customers; that is, board members and their staff, and BOE employees in general. An objective of the digital office is to provide a "single face" of BOE to those who need to contact BOE; that is, whether someone walks into a field office or makes contact via telephone they should get the same level of service. Digital BOE will in many instances enable BOE employees to obtain imaged information immediately. As a consequence, BOE staff will be able to respond much more quickly to requests, whether the requests are from taxpayers and other external entities, or internal board staff.

6.2.5 Reducing Float Time for Checks

The BOE processes approximately 2.8 million checks annually. The amount of revenue represented by checks in Fiscal Year 2006-2007 totaled approximately \$7.2 billion. While FTB and EDD are normally able to make their deposits within one to two days, BOE's average processing time is four days during peak return processing periods. Although BOE meets the State Administrative Manual guidelines for depositing checks within ten business days, the cost of BOE's inefficiency to the state is the daily interest lost for each day of lag time.

6.2.6 Improving Data Security

Both manual and computer-based systems for managing information are vulnerable to data security risks; however, it is generally accepted that properly designed and managed computer-based systems will improve an organization's data security. For example, a document imaging system can be designed so as to limit accesses to information contained in that system to only those authorized to have access. Moreover, electronic access can be logged by the system so that it is always possible to identify who accessed what particular data file and when they did so. Also, electronic records can be easily backed up to prevent records from being irretrievably lost.

6.2.7 Continuity of Business Operations

Continuity of Operations (COOP) is the governmental equivalent of the commercial concept known as Business Continuity. COOP encompasses the capability to conduct a governmental agency's *business* operations when there is a disruption to the agency's facilities and/or other assets. One of the classic examples currently utilized by the Federal Emergency Management Agency is a school district that experienced flooding

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during the Hurricane Katrina event and lost all of its (paper) records that were stored in the basement of one of its schools.

A digital BOE will provide significant improvement in the ability of BOE to operate any way, any time, and any place. This improvement will help ensure the capability of BOE to continue its business operations in the face of future disruptions to facilities.

7. Findings

The following findings reflect staff's analysis of the issues surrounding BOE's current paper-based operations.

7.1 Findings Related to the Driver of Reducing Facilities Costs

7.1.1 Scarcity of General Fund Dollars

The General Fund situation, which may be problematical for some time, will increase pressure on BOE to find ways to control its cost of operation.

7.1.2 Paying a Premium to Store Paper

The BOE is paying a premium to store paper in the headquarters building. The rental cost of space in the building is \$1.87 per square foot. Storage space in the Sacramento area is available for about \$.73 per square foot. The BOE is paying the higher amount at the same time that there is a shortage of space in the building to house employees. This is not an effective use of scarce dollar resources.

7.1.3 Moving Units from the Headquarters Building will Increase Costs

As reported in section 6.1.1, BOE is moving taxpayer records to an off-site location. Additional relocation of headquarters units within the Sacramento area may also be considered as a solution to headquarters space issues. These relocations, both actual and planned, will require an increase in transportation costs. For example, records requested by headquarters personnel will be delivered by internal courier, which will require vehicle and fuel use not previously needed.

7.2 Findings Related to the Driver of Reducing the Cost of Processing Paper

7.2.1 e-Services and Scanning and Imaging Complement Each Other

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For the foreseeable future, BOE's implementation of e-services will not completely eliminate the current paper-based processes. Accordingly, e-Services and scanning and imaging must both be treated as elements of digital BOE and complementary IT solutions to improving BOE's workload processing. .

This conclusion is partly motivated by lower than projected participation rates in BOE's e-filing program and the fact that, even if BOE were to achieve its participation goals, large numbers of taxpayers would still be using paper returns. Recent data shows that BOE will reach a 3.5% e-filing participation rate by the end of fiscal year 2007/2008. This result, based on a voluntary approach to e-filing, is not yielding the expected results as rapidly as originally envisioned. To increase participation rates, BOE is taking a more assertive approach to transitioning taxpayers to e-filing. BOE is implementing the e-filing transition plan, the goal of which is to achieve a 25% to 50% e-filing participation rate. A key component of this plan is to discontinue the mailing of return forms by December 2009.

Even if BOE reaches its goal of 50% of returns being e-filed, a large volume of paper will still need to be processed. This conclusion corresponds to the experiences of both EDD and FTB. Figure 4 in Appendix D provides a comparison of paper processing volumes for BOE, EDD, and FTB for calendar year 2007. As Figure 4 shows, both EDD and FTB continued to process large volumes of paper in 2007, despite the fact that both agencies had previously implemented e-filing.

This finding makes evident the need for a scanning and imaging process to partner with the current e-filing effort to achieve BOE's digital office in a manner that supports taxpayers' preferred methods of submitting returns, making queries, and performing other transactions with BOE.

7.3 Findings Related to the Drivers of Reducing Processing Time and Achieving Operational Efficiency to Improve Customer Service

7.3.1 Allocations to Local Governments

The allocation process by which BOE disburses sales and use taxes to counties, cities, and special taxing jurisdictions is a paper-based and lengthy procedure. Currently, the allocation schedules are handled multiple times before the allocation process is completed.

7.3.2 Positive Results from Imaging and Scanning

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Smaller units within BOE (for example, organizations in PSTD) have realized significant benefits by scanning documents for use in an imaging application. The imaged documents are used in numerous ways, including responding to taxpayer questions/concerns, research of historical data to assist in processing current returns/filings, and distributing Legal Entity Ownership Program (LEOP) filings to county assessors.

7.3.3 FTB and EDD have Realized Solid Benefits

By using scanning and imaging technology, both FTB and EDD have been able to more efficiently process taxpayer returns and queries, and also better manage their respective workloads. For example, EDD's Team Project was able to reduce its front-end processing staff by 352 PYs and shift personnel to other more productive positions at the agency. We note that no permanent staff was laid off and, in fact, personnel were transitioned to positions with a greater opportunity for upward mobility.

Given the millions of dollars invested by EDD, FTB, and other state agencies in the development of successful imaging systems, BOE should avoid "reinventing the wheel" and focus instead on taking advantage of this experience by giving serious consideration to contracting with either EDD or FTB for imaging and related services. Figures 4 and 5 in Appendix D provide a comparison of paper processing volumes for BOE, EDD, and FTB for calendar year 2007 and FY2003-2004, respectively. As the data in the figures indicate, adding BOE's paper processing volume to either EDD or FTB's paper processing volume would be only a marginal increase for the partner agency.

The BOE can leverage previous state investments by considering both EDD and FTB as viable potential service providers; however, there are differences in how the two departments manage the processing of returns, and BOE must carefully consider the differences in evaluating the feasibility of contracting with either of those departments to provide services to BOE. See Appendix E for descriptions of the business processing workflows at EDD and FTB.

7.3.4 Lack of Enterprise Standards

There are no common enterprise standards within BOE regarding scanning and imaging. Although there are several imaging applications in use at BOE, each was developed independently with no common agency enterprise standards. Consequently, there are currently separate common indexing schemes, little common hardware or software, and a minimal common process governing the use of scanning and imaging.

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As a result, these applications generally cannot communicate with each other and scanned images can be used only by the departments that created them.

7.3.5 Collaborating with Labor is a Critical Factor

Improving BOE operations through the increased reliance on IT will improve the ability of employees to conduct their work; however, careful planning will be required to assure that employees, and their unions, are kept apprised of plans affecting them and given an opportunity to provide ideas and suggestions to assist BOE planning efforts. It is noteworthy that, when implementing its front-end imaging and scanning program, EDD redirected its dedicated PYs lost to automation by setting up a retraining program. This program included the unions, job counseling, a career center, and other related services.

7.3.6 Continuing to Microfilm is Ineffective

Microfilming technology is rapidly becoming outdated. Over time, it will be increasingly difficult and more expensive to maintain microfilming equipment. For many years, SUTD has microfilmed clean returns to reduce the amount of paper filed in taxpayer folders. The use of microfilming technology should be limited to reviewing previously microfilmed documents in only those cases for which the investment to scan or image is not justifiable.

7.4 Findings Related to the Driver of Reducing the Float Time for Checks

7.4.1 Processes Inhibit Timely Depositing of Payments

The current “front-end” taxpayer return processing limits BOE’s ability to deposit payment checks in a timely manner. One of the primary inhibitors to timely deposit of payments is “white mail,” which refers to mail that is received by BOE that is not in a standard envelope or uses a generic return form which does not include detailed processing information. Currently BOE’s front-end processes require coded forms and specific envelopes. When white mail arrives, it is handled as an exception to the standard front-end processes.

As noted above, during 2007, the number of white mail trays increased from 14% to 20% of all return trays received. Ninety-five percent of the white mail received consists of returns/filings, and a large percentage of quarterly processing includes payments.

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The BOE is required to manually open each envelope and look up taxpayer information to properly code these returns for processing. White mail is held during peak periods to focus on the identified returns to ensure those payments are deposited timely.

It should be noted that with the e-file transition plan which is to be implemented in stages beginning with the third quarter of 2008, BOE generated return forms and envelopes will no longer be mailed to the taxpayer. As a result, most paper returns will arrive as white mail.

7.5 Findings Related to the Driver of Improving Data Security

7.5.1 A Digital BOE Would Enable Improved Data Security

The use of electronic images instead of paper will enhance BOE's security capabilities. Electronic files of images can be secured in multiple ways, including passwords, user-levels, access capabilities (for example, read-only), and other user-based approaches.

7.6 Findings Related to the Driver of Continuity of Business Operations

7.6.1 A Digital BOE Would Enable Business Continuity

Achieving the BOE digital office vision of working any way, any time, any place would enable BOE to continue to conduct business even if there are disruptions to facilities like those that have occurred recently with the headquarters building.

8. Recommendations

The BOE staff has a number of recommendations to improve BOE operations and customer service in support of the BOE digital office vision. Some of the recommended activities are more immediate than others, while others logically follow the completion of immediate activities. Future funding needs will be addressed accordingly and will be consistent with state policy.

8.1 Phase I, Fiscal Year 2008/2009

8.1.1 Develop a BOE Indexing Methodology

At present, as noted elsewhere in this paper, BOE does not have an enterprise indexing methodology applicable to scanned and imaged documents. An indexing methodology is a principal underpinning of an imaging system accessible to BOE staff throughout the organization. An indexing methodology is also required to facilitate collaboration with sister tax agencies with respect to compliance with and enforcement of tax law. Given the importance of indexing, BOE should consider hiring a scanning and imaging consultant to assist in the development of this methodology.

8.1.2 Develop Architecture and Standards for Technologies in the Digital Office

Although scanning and imaging have been used in various BOE departments, each application is unique because there is no agency-wide approach. An enterprise approach to “architecture” and standards is required. The previous recommendation regarding an indexing methodology would, when implemented, provide a key standard; however, other standards must also be developed. For that reason, it is recommended that TSD lead an agency-wide effort to determine the technical architecture and standards (other than indexing) for scanning and imaging.

An early step in making a standard architecture a reality will be to develop an inventory of existing hardware and software in scanning and imaging applications at BOE. Once the inventory is complete, then a plan must be developed for aligning the existing assets with the standard, enterprise architecture. Alignment will likely require the retiring of some of the existing technologies.

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8.1.3 Implement the Legal Department Pilot Project

The Legal Department is scheduled to return to the headquarters building later this year. This move will include at least 400, and possibly as many as 600, boxes of records. The relatively small size of the Legal Department, including the number of paper records in its possession, makes it an ideal candidate for a digital BOE pilot project. Moreover, the Legal Department has expressed an interest in being a pilot project participant.

Consequently, it is recommended that an imaging application to address the Legal Department's several hundred boxes of records be planned as a pilot project for a digital BOE. This project would be used to test both a methodology for enterprise indexing and standards for scanning and imaging to ensure the Agency's business needs are met. The project could also be used to establish other components of a comprehensive document management system; for example, a master subject index, master filing system, master document retention schedule, and document exchange standards could be established. A successful pilot project would provide the basis for larger scale implementations within the board for a digital BOE.

8.1.4 Develop and Implement a "Scan on Demand" Capability Plan

It will take time and careful analysis and planning to achieve a digital BOE. In the meantime, very real needs for managing paper must be met. One way to address these needs in the relatively short-term solution is to implement a "scan on demand" capability. "Scan on demand" refers to a process whereby a paper document is photographed and placed into a database of images on a server. For example, when a paper record maintained in taxpayer record files is requested by an employee in the course of his or her work, the information would be scanned and imaged. Doing so would provide an alternative to an effort to scan and image *all* taxpayer records, which would be a very large undertaking. Because "scan on demand" would allow a timely conversion of paper records to electronic records, it is recommended that the concept be implemented in Fiscal Year 2008/2009 during Phase I.

"Scan on demand" would also improve workflow. Digitizing the most requested files will make the information available to other BOE staff working the same account. In particular, it would provide staff instant access to documents when responding to taxpayer concerns.

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Because “scan on demand” would require that indexing and other standards be in place, it could not be implemented immediately. However, this process would allow a conversion of paper records to electronic records and it is recommended that the process be implemented in Fiscal Year 2008/2009 during Phase I.

8.1.5 Coordinate BOE Efforts to Ensure Focus on Taxpayer Needs

The digital BOE project should partner with the e-filing project and other efforts to ensure all BOE efforts are focused on attaining BOE’s vision of service to our taxpayers in manner that meets their business needs any way, any time, and any place.

8.1.6 Develop Plans for Pilot Projects

Both EDD and FTB have addressed the management of paper transactions through individual scanning and imaging projects, as well as through the establishment of e-filing capabilities. Each department has taken a different approach, and there are relative strengths and weaknesses of the imaging systems and related processes they have implemented.

The BOE has discussed with FTB and EDD the possibility of a contractual arrangement whereby BOE would receive return processing services. Both departments have indicated an interest in providing such services. The primary appeal of such an arrangement is that it would allow BOE to avoid “reinventing the wheel” by leveraging the FTB’s and EDD’s investments and practical experience.

Adopting this approach will save BOE significant resources. For example, RPAP was estimated to take at least 19 months and cost \$29 million. Leveraging the investments made by other state agencies would significantly reduce BOE’s one-time costs for a similar effort. This approach is also consistent with the state CIO’s initiative to leverage and consolidate the state’s technology infrastructure and services. The state CIO has already announced the formation of a statewide task force to develop common standards and architecture for scanning and imaging. In addition, the state CIO has stated her reluctance to approve new large scale scanning and imaging infrastructure.

It is therefore recommended that BOE define two pilot projects – one with the FTB and the other with EDD – and develop project plans, negotiate costs and service level agreements. BOE would then evaluate each completed pilot project to form a basis for determining whether agency needs can be best served through a continuing contractual arrangement with either the FTB or EDD. These projects may require BOE to redesign its return forms. They may also require some type of budget action.

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It is further recommended that one of the pilot projects focus on multiple location Sales and Use Tax returns, because, as indicated in our findings above, the allocation process is a paper-based and lengthy procedure. Currently, the allocation schedules are handled multiple times before the allocation process is completed. Using an image of the return will allow several people to work the return at the same time. The ability to parallel process the returns will expedite the allocation of local tax.

8.1.7 Develop Plan to Enhance Existing Document Scanning Processes

PSTD currently utilizes a number of stand-alone document scanning processes. With a single exception, all processes currently scan documents *at the end of processing*. Efficiencies are expected if the documents are scanned or imaged in the early stages of (or prior to) processing so that units can use the electronic images instead of paper *during* processing.

It is recommended that during Phase I, BOE develop a plan to modify PSTD document scanning processes to enable the use of images for return/filing exception processing.

8.1.8 Develop Microfilm Migration Strategy

As noted in the findings above, microfilming technology is rapidly becoming outdated. Over time, it will be increasingly difficult and more expensive to maintain microfilming equipment.

As an initial step to implementing this strategy, it is recommended that BOE develop SUTD “clean return” and prepay forms microfilm migration strategies. During Phase I, BOE should develop required project approval documentation that includes business analysis, alternatives, and costs. A project plan for migrating from microfilm should be developed.

8.2 Phase II, Fiscal Year 2009/2010

8.2.1 Implement Pilot Projects with EDD and FTB

During Phase II, the pilot projects with EDD and FTB that were planned in detail in Phase I should be implemented.

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8.2.2 Implement Microfilm Migration Strategies

During Phase II, the plan to migrate from microfilm, developed in detail in Phase I, should be implemented.

8.2.3 Implement Plan to Enhance Existing Document Scanning Processes

During Phase II, BOE should implement the plan to modify PSTD document scanning processes to enable the use of images for return/filing exception processing.

8.2.4 Develop Plan for BOE Digital Office Phase III

During Phase II, BOE should complete an analysis/evaluation of all Phase I/II efforts, including the pilot projects, and define projects for Phase III to continue the migration of BOE to the digital office vision. It will be critical for BOE to develop project plans, negotiate costs, define service level agreements, and develop evaluation criteria with EDD/FTB.

The outcome of Phase I/II should provide sufficient data and information to enable BOE to plan a number of well-defined projects, for example, modernizing the tax allocation process throughout the enterprise. Based on the outcome of the pilots, BOE should consider the following combination of activities:

- **Benefits-Based Procurement.** The BOE should evaluate the potential for utilizing a procurement approach wherein the contractor shares in whatever benefits are achieved (for example, cost savings and increased revenue) in exchange for shouldering the initial investment in the solution.
- **Explore opportunities to partner with other tax agencies in a project to streamline and digitize mailroom, cashiering, and data entry functions.** The solution must be a comprehensive plan that addresses staff and labor considerations, the needs of the other tax agencies, and service levels to BOE taxpayers.

8.3 Phase III, Fiscal Year 2010/2011

8.3.1 Consolidate Document Repositories

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As has been noted earlier in this paper, BOE has over the years implemented a number of stand-alone imaging applications. Consolidation of the document repositories resulting from these applications is a necessary component of a BOE enterprise-wide document management infrastructure.

8.3.2 Implement BOE Digital Office Phase III Projects

Based on the work done in FY 2009/2010, BOE should aggressively pursue the implementation of the digital BOE vision. The BOE should implement the projects defined in Section 8.2.4 which will result in BOE capturing their tax returns/filings electronically either by electronic transmission or scanning and imaging, enabling BOE to meet their organizational goals and objectives efficiently and effectively and respond to taxpayers inquires timely.

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9. Conclusion

The combination of pressing facility needs, mature technologies, potential partnerships with sister tax agencies, and increasing sustained competition for scarce General Fund dollars presents BOE with both the need to make substantial improvements in its operations and the opportunity to do so in a cost-effective manner. The BOE's executive management views this situation as a catalyst for action that will be consistent with its vision of creating the IT-based digital BOE office to better serve taxpayers and other stakeholders, while at the same time realizing economies in operating processes. Executive management's commitment to significant improvements is reflected in its designation of a project manager to oversee the detailed planning process necessary to implement the vision, including the many immediate activities discussed in this paper. The BOE's executive management looks forward to a dialogue with Board Members concerning the findings and recommendations contained in this paper to obtain their support of efforts leading ultimately to the digital BOE office.

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Appendix A. Participants in Roadmap Development

Board of Equalization:

Core Team

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Franchise Tax Board

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Karen Salcedo
Marlene White
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Appendix B. Key Document Sources

January 2005 report of the Legislative Analyst's Office titled *Tax Agency Consolidation: Remittance and Return Processing*

January 5, 2007, *SUTD Tax Return Processing Assessment and Reengineering*, NewPoint Group

2007, 10th edition, *Document Management Overview*, The Laserfiche Institute

January 1, 2008, IT Governance Council Discussion Item, Agenda Item #5

February 29, 2008 Memorandum from Randie L. Henry to Board Members, Subject: Electronic Transition Plan

March 2008 report to the Legislature pursuant to the Supplemental Report of the 2007 Budget Act, titled: *Status of Electronic Filing at the Board of Equalization*

Appendix C. Return Processing Paper Flow of BOE

The charts below illustrate how incoming paper flows through the BOE return handling process.

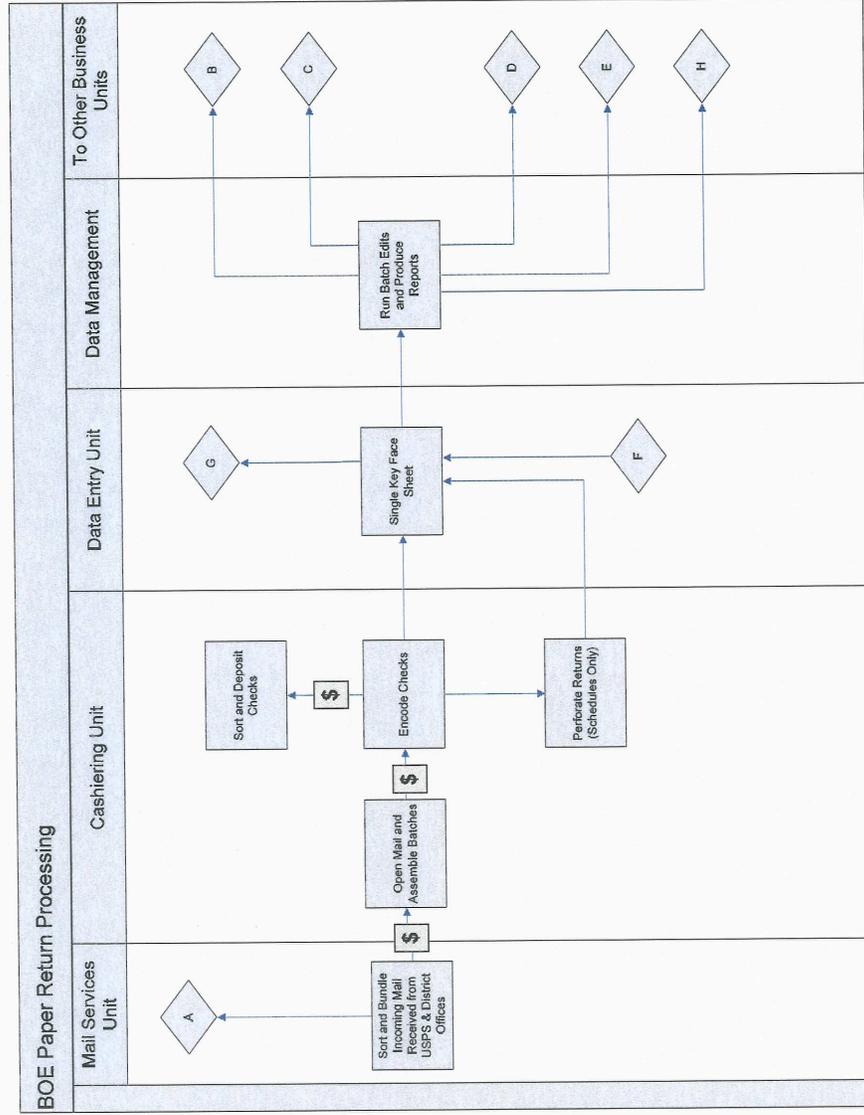


Figure 1. General Flow of Paper Processing at BOE

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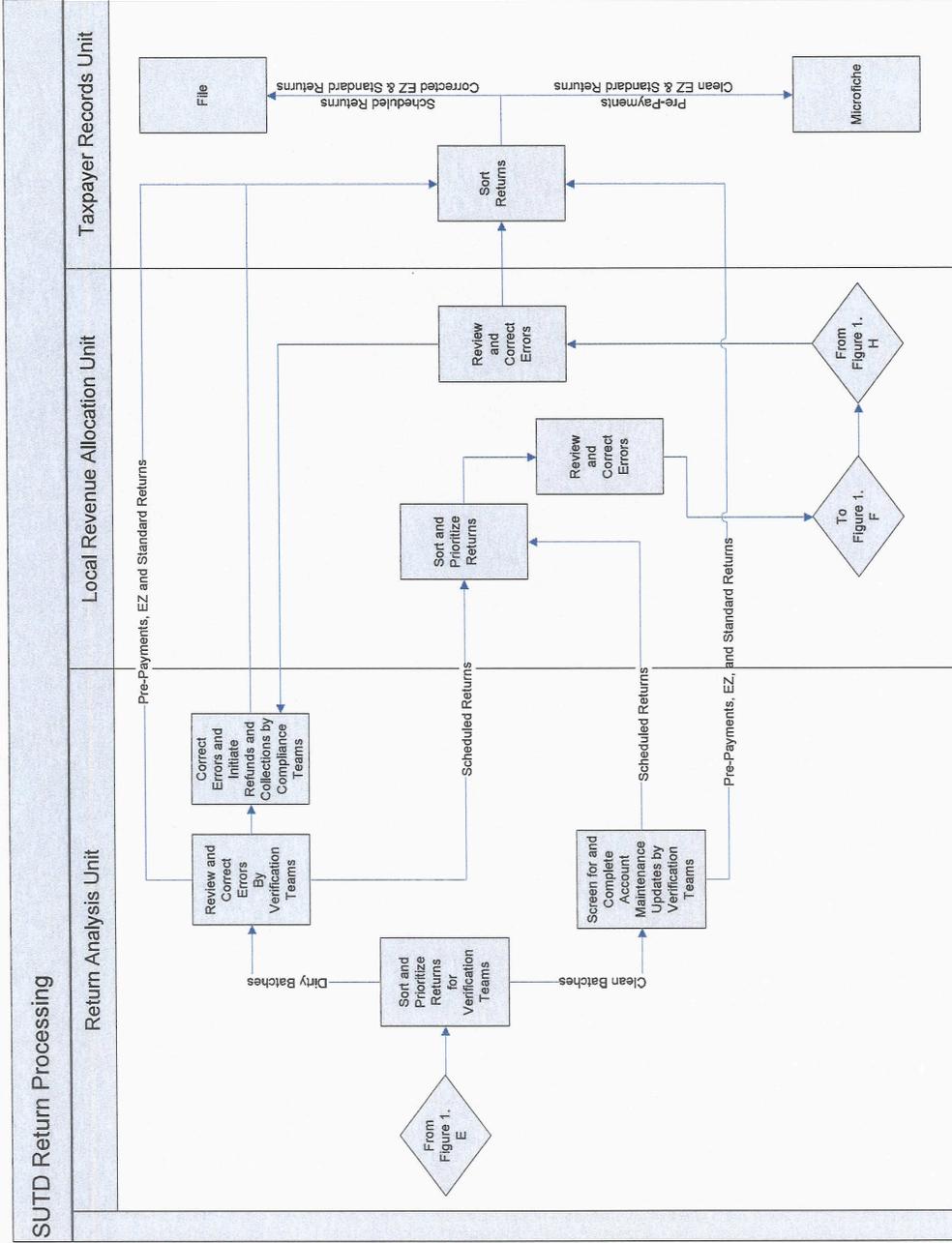


Figure 2. Return Processing Paper Flow in BOE Sales and Use Tax Department

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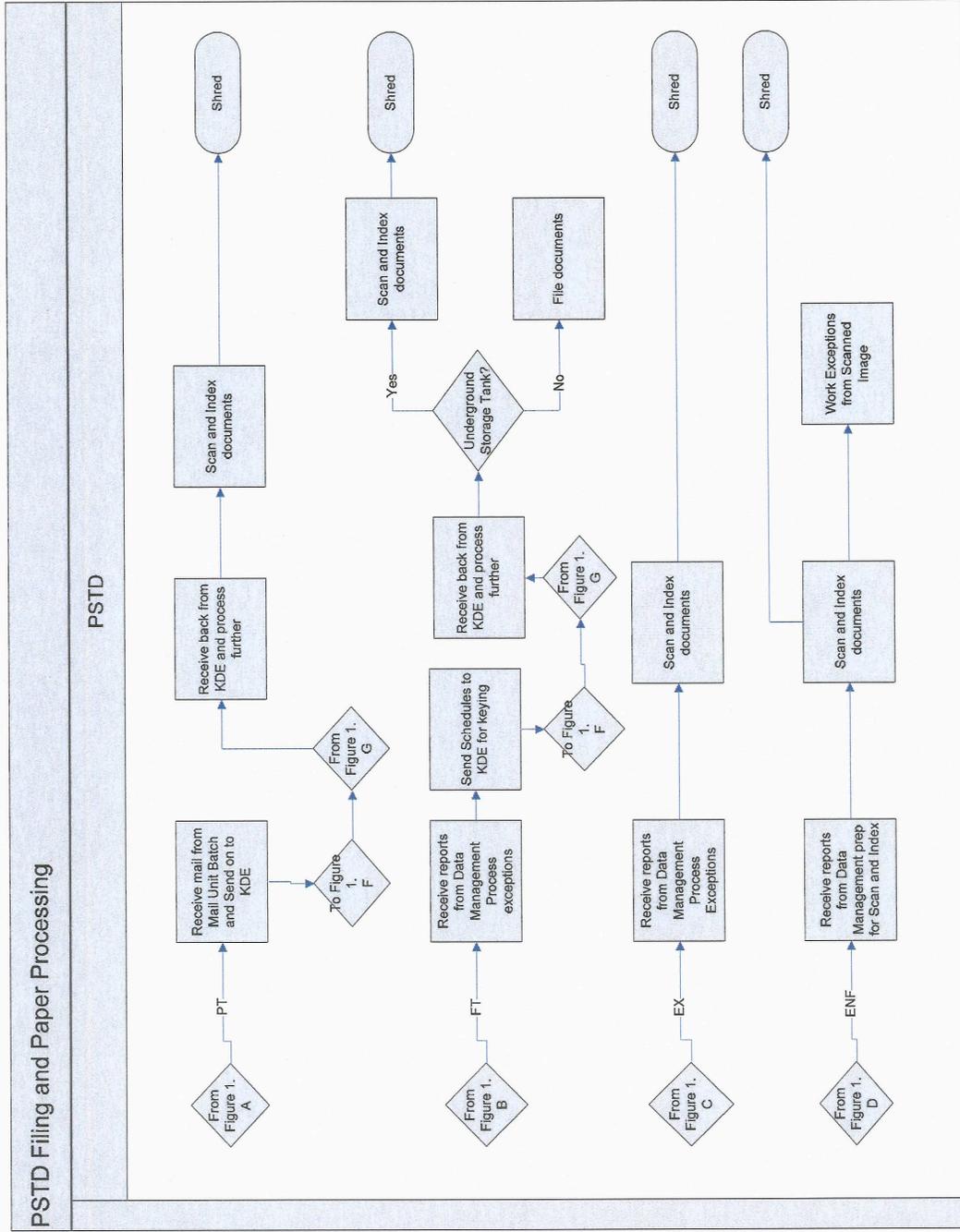


Figure 3. Filing and Paper Processing Flow in BOE Property and Special Taxes Department

Appendix D. Processing Volumes at BOE, EDD, and FTB

Figure 4 below shows monthly processing volumes for BOE, EDD, and FTB during calendar year 2007. In 2007, BOE continued to process a large volume of paper (although still significantly less than either EDD or FTB). Interestingly, the Figure 4 also shows that both EDD and FTB continued to process large volumes of paper in 2007, despite the fact that both agencies had previously implemented e-filing.

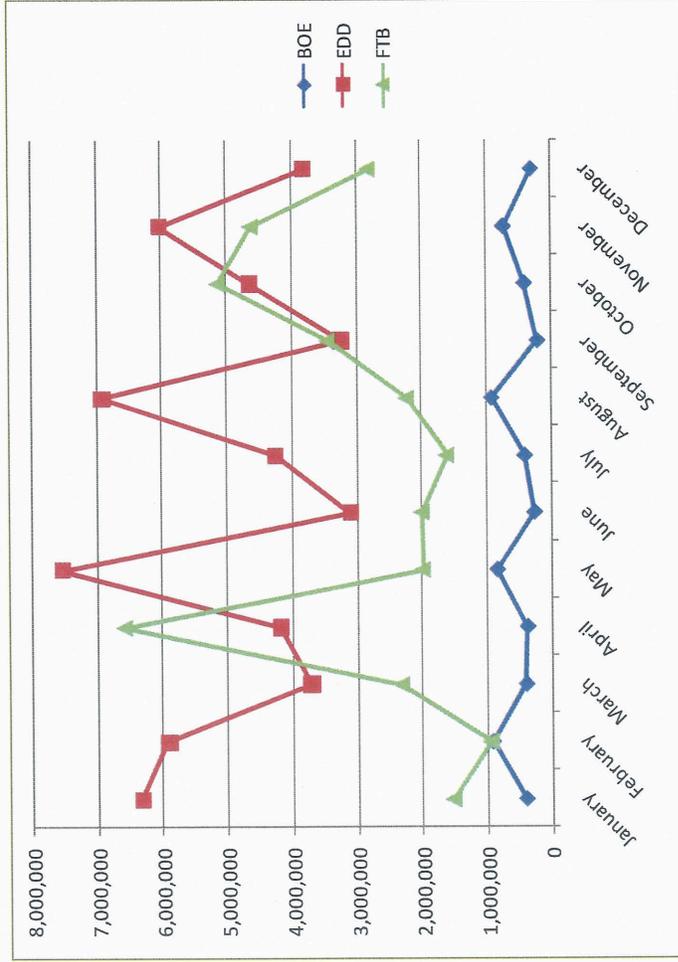


Figure 4. 2007 Monthly Processing Volumes
(BOE data includes returns, schedules, and payment documents; EDD and FTB data represents scanned pages)

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Figure 5 below is based on data provided in a January 2005 LAO report. From the figure, it is clear that during FY2003-2004, BOE processed a large volume of paper, although significantly less than either EDD or FTB.

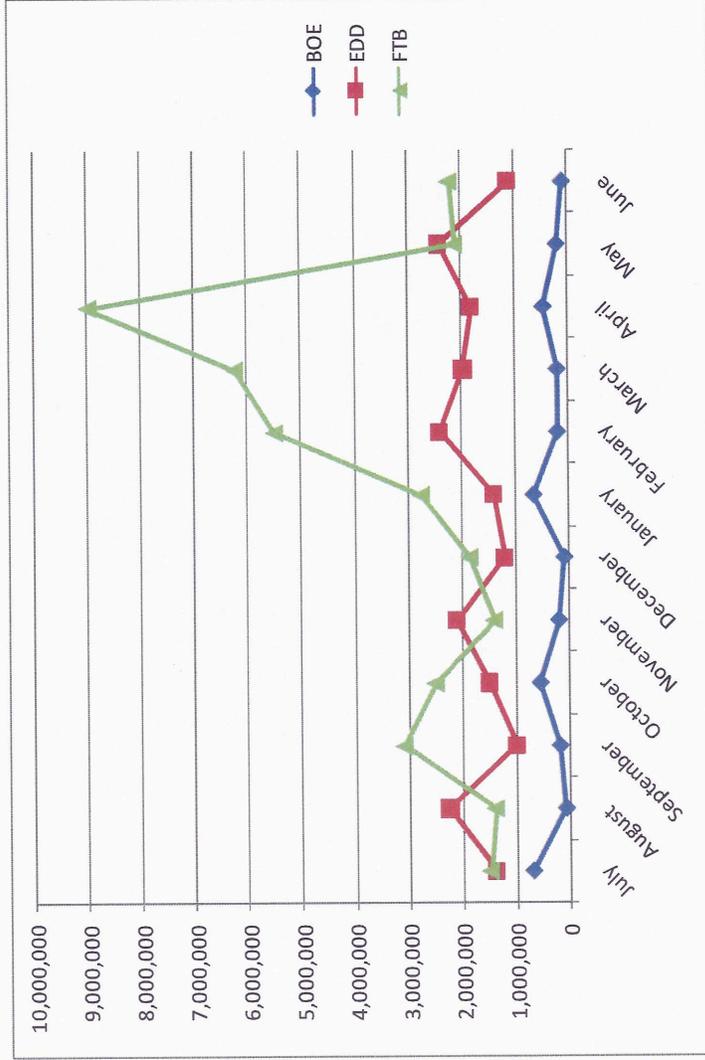


Figure 5. 2003-2004 Monthly Processing Volumes (Source: January 2005 LAO Report)

Appendix E. Business Process Workflows at EDD and FTB

The narrative and diagrams below describe the business processing workflows at EDD and FTB.

Employment Development Department

There are three major categories of incoming mail processes used at EDD:

- Remittance
- Non-remittance
- White Mail (correspondence)

The majority the remittance processing is done using high-speed mail sorting and opening machines. The remittance documents are a coupon size payment voucher. EDD provides a coupon books and envelopes to employers annually. These documents are processed through high-speed remittance scanning machines configured to process coupon size paper and checks using a two-pass process.

Pass one on the high-speed remittance scanners captures the image of the check and coupons for balancing. Pass two encodes and endorses the checks with the dollar amount and sorts the check to the designated banks. Prior to the Pass two process, the checks and coupons are presented to the Key Data Operators for data purification.

Non-coupon size remittances are processed by a "Linking" solution. The Linking is a custom application used to process exception remittance transactions that cannot be run through Pass one process. The Linking Unit processes the document and checks using a table top scanner and check reader (similar to the Pass one on the high speed scanner). After the documents have been imaged on the table top scanner, the checks are processed on the high speed remittance scanners for Pass two (endorses the check and encodes the dollar amount on the check prior to deposit). The data is captured during the Linking process.

Non-remittance data capture forms are processed on the semi-automated mail opening equipment or opened manually by staff. The forms are batched and processed on the high speed scanners for imaging. The software captures the data from the image and presents to a Key Data Operator for data purification prior to upload to the mainframe.

Optical Character Recognition (OCR) and the Intelligent Character Recognition (ICR) technology are used to capture the data. The data capture software is used to key enter data information that cannot be read by the software engine and includes an extensive series of edits that are used to purify the data. Key data operators use the

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scanned image to correct data that is not properly read during the OCR/ICR process for remittance and non-remittance forms. The data files are uploaded daily to the mainframe systems and the images are routed to an image archival/retrieval systems.

The “white mail” correspondence items are processed as non-data capture form. These documents are batched and processed on a scanner for imaging. Staffs index the image for processing to a queue for further processing by post processing staff or the images are sent directly to the image archival/retrieval system.

Figure 6 below depicts EDD’s return remittance processing flow.

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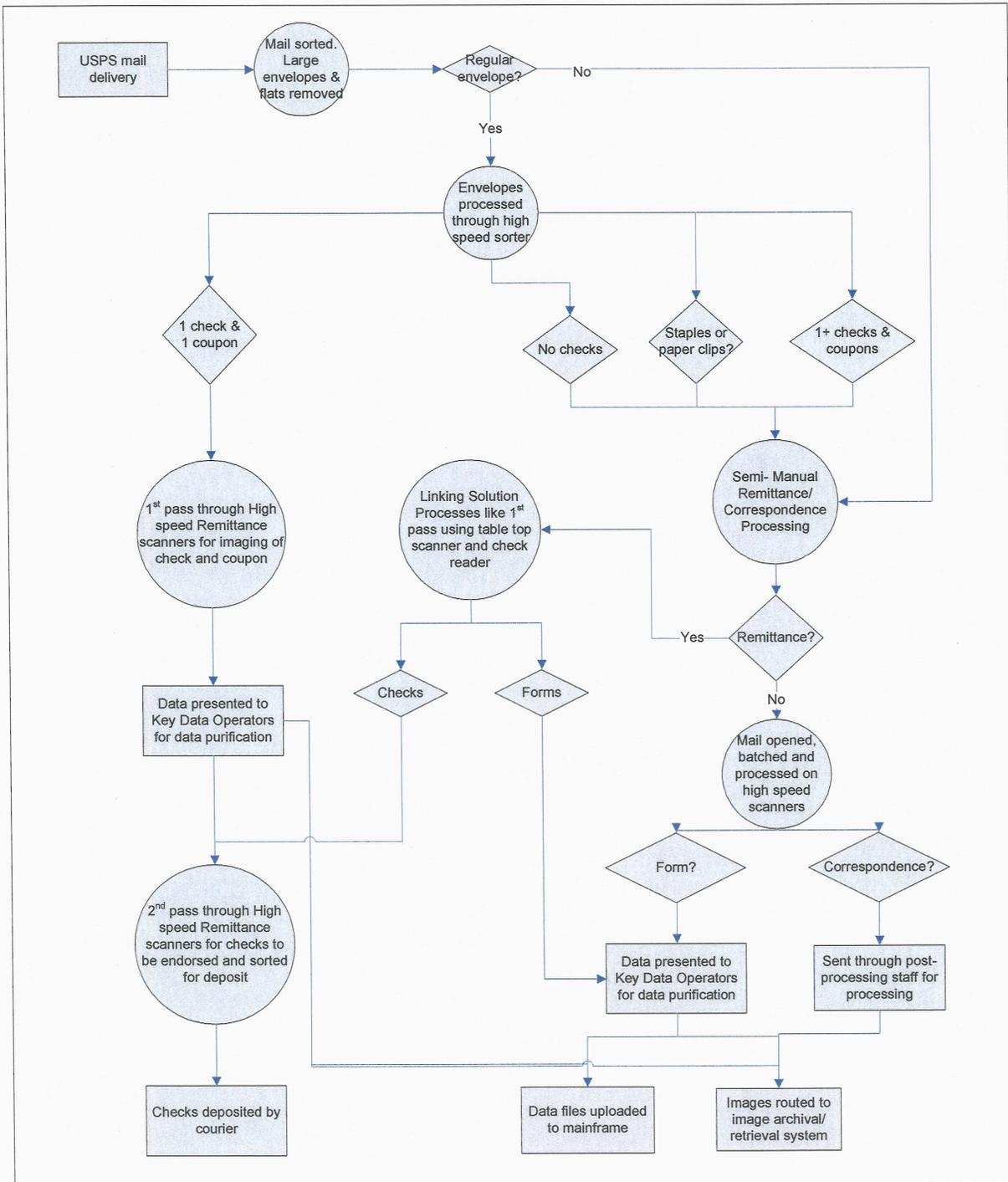


Figure 6. EDD Return Remittance Processing

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Franchise Tax Board

The Franchise Tax Board (FTB) processes Personal Income Tax and Business Entity Tax returns and payments.

In 2008 FTB received over 15 million Personal Income Tax (PIT) returns for tax year 2007. Over 67% of the PIT returns were filed electronically. Approximately 4.9 million paper returns were filed. Of the paper returns, 3.7 million were scannable returns that processed using high-speed scanners.

Personal Income Tax (PIT)

There are two types of PIT returns, scannable and non-scannable. Mail opening equipment is used to open letter size envelopes and the contents are manually removed and sorted for further processing.

Scannable forms are tax returns that contain a scanband of line numbers and monetary amounts. The scanband is composed of columns of line numbers and corresponding monetary amounts in an open area on the front side of the return. This area is free of all extraneous verbiage. The scanband is laid out in a grid format with specific measurements from top to bottom and left to right on the paper. The return data is read by the scanners and Inscript software. Scannable forms include forms 540, 540A, and 540NR.

The scannable forms and remittances are scanned and Optical Character Recognition (OCR) technology is used to read the scanned data to upload to the mainframe computer. A manual process is used to correct data that OCR process does not read properly. Encoding machines are used to prepare the remittances for deposit and the return data is validated as needed and uploaded to the mainframe system. The images are retrievable for tax compliance and audit activities.

Non-scannable PIT returns are manually entered into the system. After an error correction process is complete, the data is validated as needed and uploaded to the mainframe system. Encoding machines are used to prepare the remittances for deposit.

Business Entity

Business Entity returns are manually keyed into the system and the entire return package is imaged. At this time, OCR technology is not use for processing BE returns. The return data is validated as needed and uploaded to the mainframe system. Encoding machines are used to prepare the remittances for deposit. Since the entire return is imaged, the return is shredded and the image is retrievable for tax compliance and audit activities.

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Payment Vouchers

PIT and BE coupon payment vouchers for tax estimates, extensions, billings, etc. are scanned with OCR. A key from image process is used to correct data that the OCR process does not read properly. The data is uploaded to the mainframe system and the remittances are deposited through the cashiering process.

Figures 7, 8, and 9 below depict FTB's processes for business entity returns, personal income returns, and cashiering.

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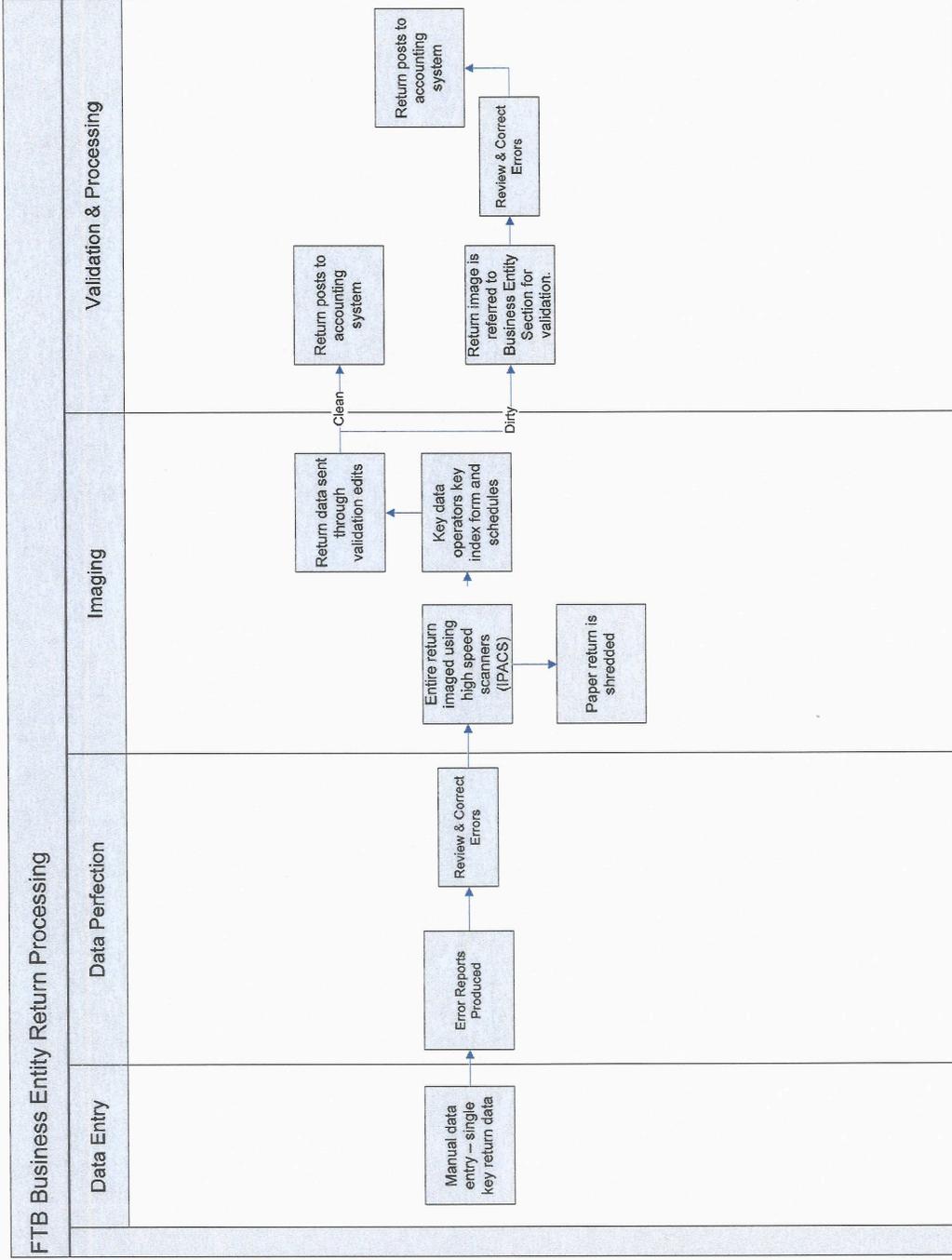


Figure 7. FTB Business Entity Return Processing

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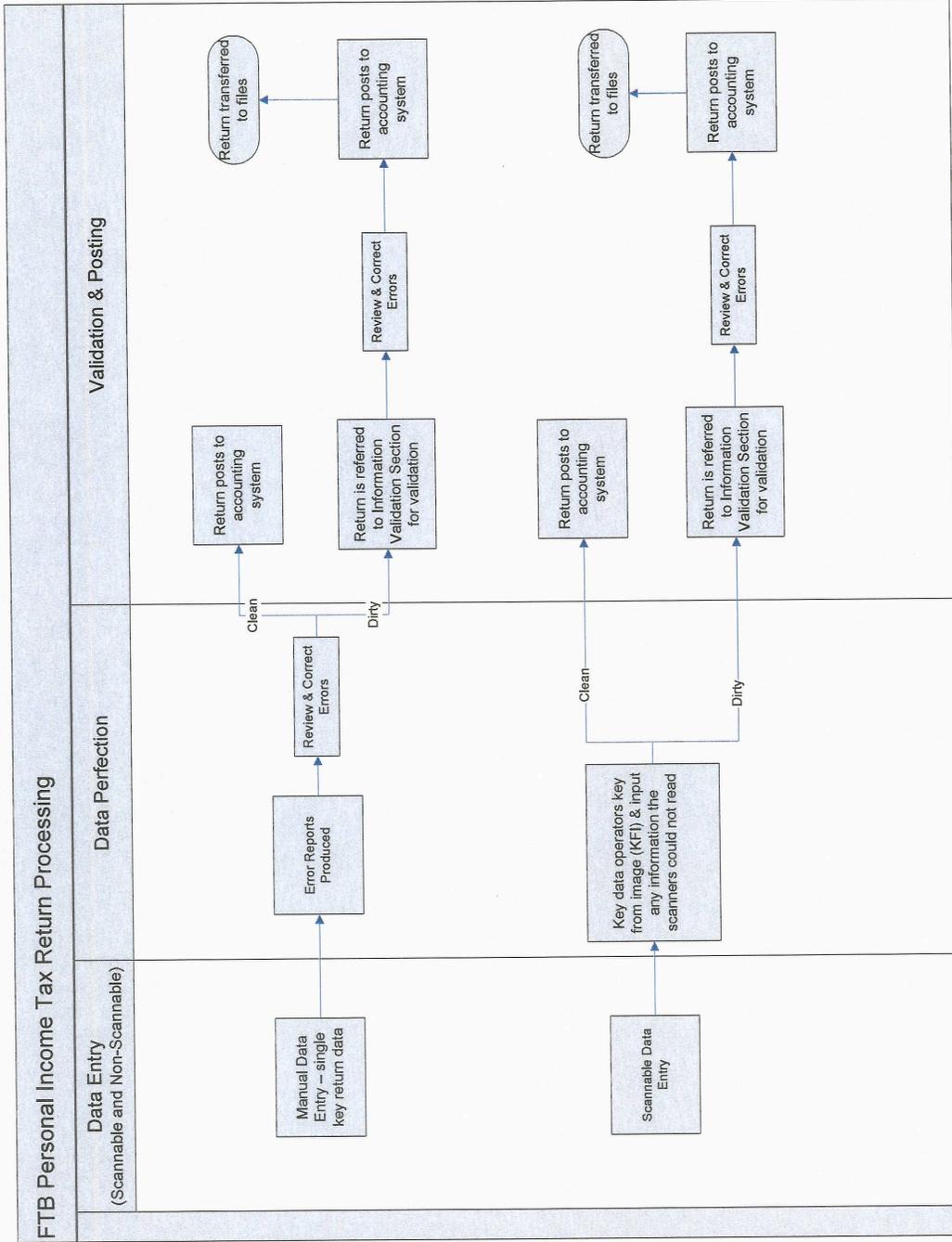


Figure 8. FTB Personal Income Return Processing

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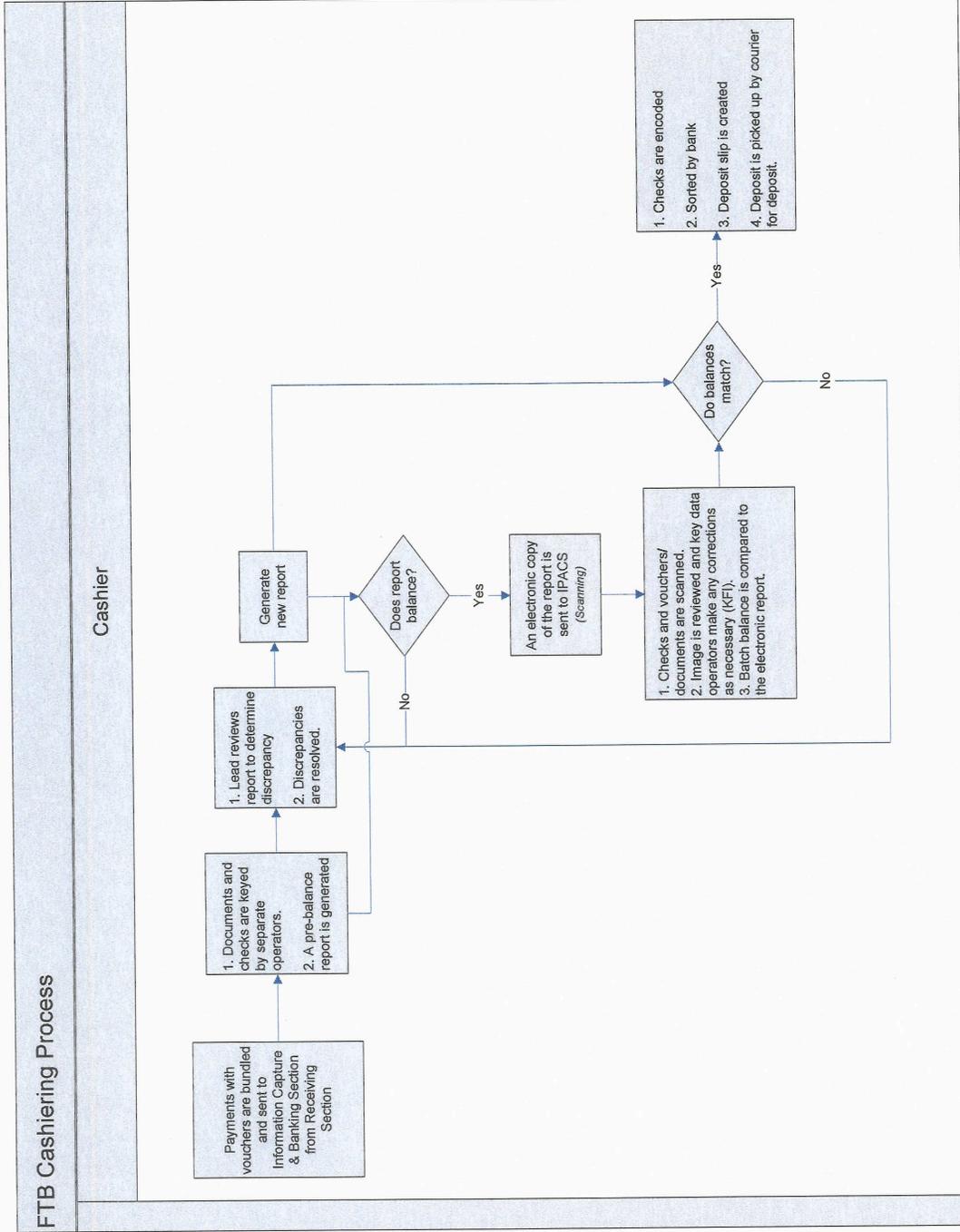


Figure 9. FTB Cashiering Process