STATE OF ALASKA

Department of Revenue

Comprehensive Plan and Feasibility Study

Alaska Department of Revenue Tax Division
RFP Number 2010-0400-9618

Executive Summary

Needs Assessment

The Alaska Department of Revenue's Tax Division (DOR/TAX) relies on a patchwork of 17 automated systems and over 100 manual "side-systems" to administer 22 tax programs.

- DOR/TAX manages over **$3 billion in Oil and Gas Tax revenue** using an eclectic mix of home-grown side-systems that include multiple databases and unsecured, unstable spreadsheets stretched well beyond their intended use. Storing sensitive taxpayer information in these databases and spreadsheets poses a high security risk.
- The 17 systems used to administer different taxes and functions have been pieced together over the past 15+ years without integration or an overall architecture. The systems do not scale to meet current needs and are inflexible and difficult to maintain. Since the initial development of the systems, many tax laws have changed and the systems have not changed accordingly.
- DOR/TAX constructed the current tax systems as silos of information pertinent to only the tax types they serve. This makes sharing data with other tax systems difficult, requiring customized interfaces, or manual processes. It also makes the business processes that have grown up around the systems duplicative and inefficient, and, in many cases, business processes which should be standard across tax types conflict between systems.
- The vast majority of the agency's business processes are manual. Many exist strictly to get information from one system, database, or spreadsheet to another or to reconcile information. The prevalence of manual processes significantly increases the probability of human error. DOR/TAX also uses manual processes for fundamental business purposes – for example, distributing shared taxes of over **$44 million to 124 communities** throughout Alaska in 2009.
- DOR/TAX employees spend a higher proportion of their time compiling, organizing, and reconciling data than actually auditing, examining, analyzing, forecasting, or managing tax programs.
- The limitations and inflexibility of existing systems impose a burden on taxpayers. Current reporting processes are inefficient and ineffective, and create unnecessary work and cost. As one taxpayer stated, "the Tax Division's inefficiency makes taxpayer interaction with the division inefficient."
- DOR/TAX cannot easily produce reports required by the legislature and policy makers because the current systems prevent timely, complete, and correct extraction of data. Reports can be inaccurate and misleading due to incorrect and incomplete data and human error.
- Because of the changing nature of the economy, Alaska may, in the future, need to adjust its state tax structure away from such a heavy reliance on Oil and Gas Taxes. The current capabilities of DOR/TAX make analysis of new opportunities, or investigation of competing alternatives, nearly impossible. Economic research capabilities of the current system rely on manual processes.

DOR/TAX Vision

DOR/TAX's vision is to "Efficiently use resources to promote compliance and fairly collect and accurately report the State's revenues." The DOR/TAX management team believes the single, most significant step it can take to achieve its vision is to procure and implement a modern integrated tax management system (ITMS).

ITMS implementations are complicated, high-risk projects. An effective mitigation strategy needs to focus on three key elements:

- Choosing a sound implementation approach
- Using an effective procurement process to select a strong solution and trusted business partner
- Carefully planning and managing the project to ensure successful delivery

Implementation Approach

Options available to states desiring to implement a modern, ITMS include the following.

- *Custom systems:* For many years, custom-built mainframe-based systems were the only option available to state revenue agencies. They remain an option today. A custom solution can provide a high degree of flexibility, especially if the agency is very satisfied with its existing business processes and does not want to adapt them to other solutions. Custom systems, however, pose a higher degree of implementation risk and, historically, have been a more costly option.
- *Transfer systems:* Transfer systems were a popular option from the mid-80s through to the early 2000s, offering the advantages of lower cost and lower risk. At least two vendors marketed and implemented transfer solutions. To our knowledge, there are no vendors actively marketing transfer system solutions for an ITMS in the US market today.
- *Commercial off-the-shelf (COTS) systems:* COTS solutions became an option for state tax agencies after the turn of the 21st century. They offer advantages of lower risk, reduced cost, and quicker deployment of proven "out-of-the-box" functionality. Today, there are at least five companies with COTS solution offerings for the US market.

Since 2000, COTS solutions have become the predominant option for an ITMS in state revenue agencies within the US. In the past decade, 21 out of 27 ITMS contract awards were for COTS solutions. In the past five years, 12 of 14 contract awards were for COTS solutions and two followed a custom approach.

DOR/TAX does not have to decide on the implementation approach at this time. DOR/TAX can construct the Request for Proposal to allow vendors to propose an ITMS using the vendor's desired approach. This technique encourages competition and allows DOR/TAX to select the system, and the approach, during the evaluation of bidders that best meets the needs of DOR/TAX.

Scope

The scope for an ITMS includes:

- Replacing all 17 official systems, various FoxPro and MS Access databases, and over 100 Excel spreadsheets in side-systems with one integrated system. Current legacy systems will be retired as the tax types they administer are integrated into the new system
- Migrating all 22 tax types to a new, ITMS
- Cleaning data and preparing data for conversion from existing legacy systems
- Training users and operators to fully utilize system functionality
- Implementing new e-filing opportunities for taxpayers, including Modernized e-File (MeF)
- Increasing compliance functions thereby enhancing non-filer, collections, and audit functionality
- Automating distribution of shared taxes after user approval
- Configuration meeting the State of Alaska and DOR's specific requirements and providing the ability to quickly adapt the tax types to the State's ever-changing tax laws and regulations
- Providing for data warehouse and integrated imaging capabilities
- Implementing streamlined business process changes to improve efficiency and effectiveness

Costs

While the number of taxpayers in a jurisdiction has some bearing on costs, the complexity of the taxes, desired functionality, and the number of tax programs are much more significant factors. A high volume of taxpayers can affect software and hardware scalability and performance, but the functionality needed to process and administer a tax is not materially affected by a large or small number of taxpayers.

A budget for an integrated tax system for a five year period is estimated to be $30 to $35 million, and DOR/TAX is requesting a budget of $35 million. This budget should be sufficient to attract a number of vendors offering a range of solutions to respond to an RFP, and it is within the industry standard range.

Estimated Project Costs—Five Year Period

Component	Amount – Low (millions)	Amount – High (millions)
Vendor Software and Services	$23.0	$27.0
Hardware	$1.375	$1.375
Project Operating Expenses	$1.325	$1.325
Maintenance and Support (2 years)	$4.0	$5.0
Total	$29.7	$34.7

For an ITMS project, one of the critical risk factors is inadequate funding. It is important to set a realistic level of funding, allowing multiple vendors to bid thereby providing competitively priced proposals for goods and services. Setting a budget too low may result in getting a system that does not meet the agency's needs. A jurisdiction also runs the risk of limiting the number of vendors that respond to an RFP or receiving attractively priced responses that carry high business and delivery risks.

Benefits

Benefits achievable through a modern ITMS align with DOR/TAX's vision. In many states, revenue collections resulting from increased compliance exceed the amount spent on a new ITMS within 2 or 3 years after implementation is complete.

Benefits of a modern ITMS include the following:

- *Improving efficiency* - by facilitating a consistency of operations across all tax types and functions and enabling the automation of high volume, routine tasks. An ITMS project will streamline business processes and align them with best practices while at the same time providing a means and a method to incorporate tax law changes rapidly and easily.
- *Promoting compliance* - through enhanced voluntary compliance as well as collection, audit, and discovery activities. An ITMS will make conducting business with DOR/TAX simpler and easier for taxpayers and enable DOR/TAX to provide taxpayers with accurate and complete information. It will also enhance collection management tools.
- *Increasing fairness* – everyone is paying the taxes they are legally required to pay. An ITMS will allow DOR/TAX to systematically identify and act on taxpayers who fail to file, improve audit selection, identify potential underreporting, and discover taxpayers that should be registered and paying taxes, but are not.
- *Accurate reporting* - through an ITMS that provides consistency of information across all tax types and functions. An ITMS will provide real-time access and query capability, and enhanced flexible reporting capabilities.

An ITMS also streamlines system maintenance by providing a single system with a common architecture and standard delivery platform.

Implementation Roadmap

- This study provides an implementation roadmap, offering DOR/TAX practical guidance as it prepares for procurement and plans for implementation of an ITMS. Key activities include:
- Preparing for procurement – activities before the RFP is issued
- Writing the RFP
- Preparing for the project with an emphasis on project management, change management, communication management, risk management, data preparation, and deciding on project location

Factors Leading to Success

In our experience, there are certain contributing factors that can greatly influence a project's outcome. Those that are within the influence of DOR/TAX are described in detail and fall within leadership support, staffing support, logistic support, and leadership support.

Summary

It is evident from the research, reviews, interviews, and analysis of the information there is a clear need for implementation of an ITMS in DOR/TAX. It is only through extensive and redundant data manipulation, the use of unsafe side-systems, and numerous hours spent cross checking and re-keying data that DOR/TAX is able to sustain the level of service they provide now.

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II. Introduction

A. Background

For the past three years, the Alaska Department of Revenue's Tax Division has been investigating options to replace its patchwork of systems, databases, and spreadsheets that currently support the processing and collection of taxes. The agency staff and external consultants have prepared numerous analyses, studies, and documents to determine needs, identify options, and recommend the best approach for the Tax Division's future.

In July 2010, Alaska Department of Revenue's Tax Division (for the purposes of this report, DOR/TAX) issued a Request for Proposal (RFP) soliciting proposals for an unbiased study to determine the feasibility, scope, and estimated costs of a new Integrated Tax Management System (ITMS) to streamline revenue administration. Fast Enterprises, LLC (FAST) of Greenwood Village, Colorado was awarded the contract to perform this study. This report is one of the deliverables required of that contract.

B. Purpose and Scope

FAST worked with DOR/TAX to develop the scope of this study. The purpose of the study is to identify technology solutions supporting the overall vision of DOR/TAX.

The scope includes:

- Obtaining external stakeholder feedback, both to help DOR/TAX make sure its vision and mission are centered on the outcomes valued by stakeholders and to identify ways the agency can improve tax administration and the services it provides
- Assessing the gap between DOR/TAX's current state and its desired future state through a detailed technical, functional, and business process analysis
- Making recommendations on feasibility and scope, validating costs, and identifying benefits associated with an ITMS
- Identifying technical, business, and delivery risks, along with an implementation approach to minimize those risks
- Providing DOR/TAX with a roadmap based on practical guidance as it prepares for the procurement and plans for implementation of an ITMS

C. Methodology

FAST employed the five methods described below to perform this study.

1. External Stakeholder Interviews

DOR/TAX helped identify external stakeholders including a mix of taxpayers, association representatives, legislators and legislative staff, state agency personnel, and a local government representative. Twenty individuals participated in 14 interview sessions conducted in person and by telephone. Interviewees answered a consistent set of questions designed to obtain feedback about DOR/TAX and to provide input regarding the agency's vision and mission, ways to improve tax administration, and services delivered by the agency. Appendix A contains a list of stakeholder interview participants.

2. Gap Analysis

DOR/TAX's subject matter experts (SME) participated in 22 sessions to gather information about current systems and business processes. The sessions were organized by functional area. Participants discussed system constraints, limitations, desirable features, and functionality to increase effectiveness, streamline business processes, and improve productivity.

3. Management Team Workshops

Two sessions with DOR/TAX management reviewed and refined the agency's mission and vision statement and aligned its technology strategy with this vision. Stakeholder feedback and input was shared with the management team during the second session.

4. State Surveys

FAST reviewed and analyzed information previously collected by DOR/TAX about project costs, schedules, and user satisfaction and supplemented it with additional survey information about project scope, costs, and benefits.

5. Review of Prior Reports and Analysis

FAST reviewed many reports, studies, and analyses provided by DOR/TAX, including the following:

- Oil and Gas Tax System: Preliminary Requirements (October 18, 2007)
- Oil and Gas Tax System: Solutions Analysis (October 18, 2007)
- Oil and Gas Tax System: COTS Solutions Analysis (January 28, 2008)
- Tax Revenue and Information Management System: Implementation Strategy (TRIMS) (October 13, 2009)
- Commercial Off-the-Shelf (COTS) Revenue Management System: The Future of Revenue Administration (September 2008)
- New Tax Revenue Management System: Project Charter (August 27, 2008)

III. DOR/TAX Mission and Vision

A clear statement of an organization's mission and vision is important to provide clarity of focus, both for employees working inside the organization and for those affected externally by the organization's day-to-day operations. A carefully-crafted statement is able to communicate an organization's core purpose and focus, and express its aspirations for the future. It also forms the foundation for a strategic approach that can position the organization to reach its goals.[1]

A. External Stakeholder Input

DOR/TAX desired contributions from external stakeholders to serve as an input for this study, and to provide validation prior to an annual review of its vision and mission statements. FAST interviewed 20 stakeholders including taxpayers, association representatives, legislators and legislative staff, state agency personnel, and a local government representative.

After sharing a copy of the previous mission and vision statements, the questions posed to stakeholders were:

- What is your general reaction to DOR/TAX's mission and vision?
- Is it appropriate?
- Does it look like they're focusing on the right things?
- Is anything missing?

Feedback centered on the four topics discussed in more detail below.

Clarity – Stakeholders noted the statements were "quite a blend of things" and that DOR/TAX could "tighten up their focus with fewer statements."

Compliance and Collections – The most frequent comment throughout all the interviews stressed placing an emphasis on compliance rather than increasing revenue collections. One stakeholder explained,

"Shouldn't [the Tax Division] just be trying to collect the correct amount that is due? Increasing compliance makes sense, but simply *increasing revenue collection* sounds like they're only out for money – even if taxpayers are already paying what they owe."

> ***"It's good they want to focus on efficiency because the Tax Division's inefficiency makes taxpayer interaction with the division inefficient."***

[1] The mission and vision statement shared with stakeholders can be found in Appendix C, along with the more detailed feedback shared with DOR/TAX.

Another observed,

> "Trying to move the compliance needle closer to 100% is important. But simply *increasing revenue* seems to communicate the wrong message."

Efficiency – Several stakeholders noted the importance of operating efficiently. One stakeholder said, "It's good they want to focus on efficiency because the Tax Division's inefficiency makes taxpayer interaction with the division inefficient."

Wise Use of Resources, Technology – There was a concern that emphasizing the maximum use of technology, sent the wrong message. One stakeholder commented, "The important thing is to use technology wisely and effectively."

Another explained,

> "It's not about arbitrarily using technology to the max – you use technology to improve customer service or increase the public's confidence in the Tax Division. Technology is a means to achieve the Division's goals."

Stakeholders also provided feedback on DOR/TAX's mission. DOR/TAX is not able to change its mission statement without approval of the Office of Management and Budget since mission statements are used to succinctly describe an agency's objectives.

B. DOR/TAX's Mission and Vision

Mission – Collect taxes, inform stakeholders, and regulate charitable gaming.

Vision – Efficiently use resources to promote compliance and fairly collect and accurately report the State's revenues.

C. Strategic Actions and Approach

To make significant progress in reaching its vision, DOR/TAX requires a strategic approach that addresses the fundamental tools at its disposal – people, processes, and technology. The DOR/TAX management team believes the single biggest barrier it faces today is its patchwork of aging, inflexible systems and, in some cases, the absence of any system to support tax administration. By necessity, manual processes are pervasive in the agency's operations, consuming its peoples' time and energy that should be focused on compliance and taxpayer service activities. The accurate collection and reporting of revenues is at risk by insecure side-systems and extensive reliance on manual processes.

An ITMS would help DOR/TAX achieve its vision by providing a state-of-the-art platform able to leverage technology in the future. Benefits achievable through a modern ITMS align with the components of DOR/TAX's vision.

Efficiency - by facilitating a consistency of operations across all tax types and functions and enabling the automation of high volume, routine tasks. An implementation project will streamline business processes and align them with best practices.

Promoting compliance - through enhanced voluntary compliance as well as collection, audit, and discovery activities. An ITMS will make conducting business with DOR/TAX simpler and easier for taxpayers and enable DOR/TAX to provide taxpayers with accurate and complete information. It will also enhance compliance by providing collection management tools.

Fairly collect - by making sure everyone is paying their fair share of taxes, allowing DOR/TAX to systematically identify and act on taxpayers who fail to file, improving audit selection, identifying potential underreporting, and helping discover taxpayers that should be registered and paying taxes, but are not.

Accurately report - through an ITMS that provides consistency of information across all tax types and functions with real-time access and query capability, and enhanced, flexible reporting capabilities.

With the exception of cash processing and booking liabilities, there is not an automated system to administer the state's Oil and Gas Production Tax.

All other processes for this tax type are performed manually.

IV. Gap Analysis: "As Is" and "To Be"

The gap analysis presented in this section results from DOR/TAX's current state as compared to the desired future state made possible with the procurement and implementation of an ITMS. The current state is determined through a variety of means including an inventory of DOR/TAX's existing systems, examining current functionality and business processes, and through interviews with external stakeholders. Limitations, constraints, and problems are identified and compared to the opportunities for improvement inherent in a modern ITMS.

A. Inventory of Existing Systems

DOR/TAX has 17 systems used to administer different aspects of its tax types and over 100 MS Excel spreadsheets that track information the systems do not capture. Since the initial development of the systems, many tax laws have changed and the systems have not changed accordingly. It is important to note that with the exception of cash processing and booking liabilities there is not an automated system to administer the state's oil and gas production tax. All other processes for this tax type are performed manually.

The current systems are difficult to modify and maintain and do not scale to meet current needs. The result is the creation of quasi-official "side-systems." Side-systems most often take the form of MS Excel spreadsheets and, in some cases, MS Access databases that are external to systems consistent with DOR's designated *Application Development Platform and Database Standard*.

TAX has 17 systems used to administer different aspects of its tax programs and over 100 MS Excel spreadsheets that track information the systems do not capture.

Well intentioned users create side-systems out of necessity to capture information needed to perform their jobs. Storing information in side-systems results in many problems including data duplication, inconsistent data, incomplete data, and loss of data. Additionally, side-systems introduce serious security risks.

Presented below is an inventory of the 17 systems DOR/TAX maintains and uses to perform their assigned duties. The tables below include important information as to the age of the system, if known, why the system does not meet the needs of DOR/TAX, and obtainable functionality and benefits if DOR/TAX replaces them with an ITMS.

1. PowerBuilder Applications

The Alaska IT Group (2008) concluded the tax applications built in PowerBuilder are not SOA standard (p. 3). The same study found the core infrastructure of the existing PowerBuilder solution to be

incomplete and lacking many features that would streamline and consolidate the business practices of DOR/TAX. A few of those features include non-filer identification, collections management tools, audit management tools, and refund tracking. PowerBuilder applications are not consistent with DOR's designated *Application Development Platform and Database Standard*.

Cash Processing System (CPS)	
Age	14 years
Purpose	• Used by the Accounting and Collections Department to process, verify, track and post payments for all tax and license types • Interfaces to TAS to apply payments to taxpayer account and liability
Limitation/Problem	• Important information not available, such as payment directions • Not all payments made to DOR can be reported on from CPS • CPS data must be combined with TAS data to create a full report • Certain payment information is only accessible by the Accounting and Collections Unit
An ITMS could	• Standardize payment functionality - view, direct, re-direct, reverse, allocate, and otherwise associate payments with accounts and taxpayers • Make finding and understanding payment information more straightforward and visible to users talking with taxpayers and solving complicated tax payment related issues • Provide complete payment information - including split payment directions, history of allocations, and automated bad check fee application • Automate tracking and reporting of payments • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

Tax Processing System (TAS)	
Age	15 years
Purpose	• Acts as the accounting backbone for almost all tax types – Except Oil and Gas Property – only Oil and Gas Tax payments appear in TAS • Used by almost all DOR/TAX users to research and apply payments • Tracks Cigarette Consumption liabilities • Manages Mining License, Electric, and Telephone Cooperative Taxes • Manages all Gaming Tax and License functions • Holds keyed refunds information
Limitation/Problem	• Does not include management of Oil and Gas Property Tax • Difficult to change and understand code • Return details separate from transaction details • Transaction sequence numbers hard to decipher • Hard to track down the return adjustment and tie the adjustment to resulting transaction • Assessment reports to taxpayers sometimes report incorrect information causing confusion and frustration • Audit assessment reports sometimes have to be posted by IT staff due to system anomalies and inconsistencies in TAS • Changes on account status must be done manually
An ITMS could	• Include detail information for Oil and Gas Property Tax • Allow ability to view all taxpayer financial information in one place • Allow communication with taxpayers about their total liability • Allow automatic offsets to other periods/accounts • Allow revenue distributions performed in-system • Provide refund and refund interest tracking mechanisms • Provide audit and collections assessments • Provide standardization and automatic billing • Allow automatic calculation of all types of interest • Allow audit adjustments to be made from an audit case • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries • Allow for improved management tracking and system functions

Data Entry and Examination Excise (DEE)	
Age	8 years
Purpose	• Data entry and examination functionality for returns from Tobacco, Alcoholic Beverage, Fisheries, Commercial Passenger Vessel, Large Passenger Vessel Gaming, Tire Fee, Vehicle Rental, and Motor Fuel Claim for Refund
Limitation/Problem	• Originally developed as a training tool • Never designed for use in a production environment • Difficult to improve and correct • Only used to capture Oil and Gas Production Tax payments and liabilities
An ITMS could	• Integrate data entry and examination process into the same system as the financial information - no data transfer between DOR/TAX systems • Allow configurable rules for taxpayer and account information and return line items - the system can easily be modified to meet changing needs • Provide version control allowing users to make adjustments to the same copy of the return while keeping a history of who and when the changes were made • Allow for viewing/adjusting of amendments against original return • Allow management and control of workflow • Allow measurement and adjustment of line item rules to detect and deter fraud, improve processes, improve forms design • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

Data Entry and Examination (DEE) Motor Fuel/Corporate Income	
Age	12 years (Motor Fuel); 10 years (Corporate Income Tax)
Purpose	• Serves as the data entry and examination system for Motor Fuels and Corporate Income Taxes
Limitation/Problem	• Originally a transfer solution from Wyoming's Mineral Tax System • Programming guidelines were not always followed, creating a system both difficult to maintain, but also incapable of keeping up with the State's needs and legislation • Cannot change the line items on the return to adapt to legislation changes • Difficult to make adjustments to return values - sometimes have to create and re-key all information from the return to make the adjustment • Does not meet DOR/TAX's needs
An ITMS could	• Integrate data entry and examination process into the same system as the financial information - no data transfer between DOR/TAX systems • Allow configurable rules for taxpayer and account information and return line items - the system can be easily modified to meet changing needs • Provide version control allowing users to make adjustments to the same copy of the return while keeping a history of who and when the changes were made • Allow for viewing or adjusting of amendments against original return • Allow management and control of workflow • Allow measurement and adjustment of line item rules to detect and deter fraud, improve processes, and improve forms design • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

Alaskan Salmon Price Report (ASPR)	
Age	Unknown
Purpose	• Supports data entry and management for Fisheries Business Tax filers • Gathers information needed for public reports
Limitation/Problem	• Complicated for users to extract data from the system in desired formats
An ITMS could	• Allow viewing and reporting needs for this data from a standard template • Allow for scheduled reporting and automated transmission of reports through email, FTP, or other methods • Allow easy data comparison to other information in the system • Allow for forecasting and data analysis on the reported data • Allow for historical reporting and storage of previous reports • Allow for ad hoc query analysis and "on-the-spot" answers
Fish and Game Licensing Application	
Age	Unknown
Purpose	• Tracks the approval process and the license status for Fish and Game Licensing
Limitation/Problem	• Difficulty tracking if a taxpayer is in compliance, holding a current license when they file their returns - compliance data matching is difficult to perform and time consuming • Gaming licenses, returns, and stamp information reside in three different systems making it difficult to verify manufacturer licenses
An ITMS could	• Situations of concern could be automatically detected and flagged for user review and suspend or stop automatic processes from occurring if a taxpayer is not in compliance • Ability to check returns filed without a license and vice versa • Allow easy data comparison to other information in the system • Allow for forecasting and data analysis on the reported data • Allow for historical reporting and storage of previous reports • Allow for ad hoc query analysis and "on-the-spot" answers

Interest Engine for TAS	
Age	Unknown
Purpose	• Calculates the interest of debt owed to DOR/TAX
Limitation/Problem	• Cannot automatically calculate interest on credits, refunds, assessments, appeals, or collection cases • Users typically verify calculation provided by TAS in an MS Excel spreadsheet and in other interest calculation software
An ITMS could	• Streamline interest calculations for all functions in the system - interest automatically calculated within the system based on configurable rules • Ability to manually add interest, if needed • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries
Unclaimed Property (UP) Viewer	
Age	Unknown
Purpose	• View images associated with submissions in the UP system
Limitation/Problem	• PowerBuilder does not meet state of Alaska IT standards
An ITMS could	• Provide ability to associate images with taxpayer, accounts, and refunds • Allow easy data comparison to other information in the system • Allow for on-line notifications and claims for UP to clear out backlogs and reduce inventory of unclaimed property • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries
Travel Documents Image Viewer	
Age	Unknown
Purpose	• Assists DOR/TAX's Administrative Unit by archiving travel documents
Limitation/Problem	• Does not include active travel documents
An ITMS could	• Associate travel documents with system users, however, travel documents are normally handled by a State's Human Resources Division enterprise resource planning system and images are better integrated with internal business functions not related to taxpayers

2. Microsoft (MS) Access Application

MS Access is a program used by DOR/TAX with the State of Alaska's IT standards and is not consistent with DOR's designated *Application Development Platform and Database Standard*. There are many risks involved when using MS Access databases, including the lack of version control, history maintenance, and data integrity as well as a vulnerability to data corruption. Storing sensitive taxpayer information in these databases poses a high security risk.

Oil and Gas Production Tax	
Age	Unknown
Purpose	• Tracks Oil and Gas credits and Joint Venture billing
Limitation/Problem	• In 2009, tracked Oil and Gas credits worth over $310 million • Captures a lot of data - databases are currently exceeding 5GB and are difficult to access on user machines and to store/retrieve on network drives • Users accidentally override each other's data • Users make their own "copy" of the databases which are not updated when new information is added to the original database • High possibility of data corruption and loss of data • Provides low security control for data which contains sensitive taxpayer information
An ITMS could	• Provide a system architecture designed to handle large amounts of data • Provide version control to prevent loss of information • Provide one source of data available to all users • Prevent data from being lost and overridden • Provide for implementation security standards • Provide ability to capture and report on all data submitted by the taxpayer • Allow standardization of data submission • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

3. Web Applications

DOR/TAX has implemented three web applications which have expanded taxpayer self-service. Taxpayers now have the ability to file returns and license renewals, make payments, and submit additional information to DOR/TAX. The applications automate the receipt of information, so the staff does not have to enter the original data.

Unfortunately, the web applications reside on the same servers as the Permanent Fund Division's applications. DOR/TAX cannot make major changes between December and May due to the potential negative impact to the Permanent Fund Dividend applications.

The web applications built originally to allow the taxpayers to apply for licenses now perform additional functions. Since the initial implementation, the scope expanded to allow the web applications to accept return filings, payments, and additional information required from taxpayers. The applications stretch to provide accepting MS Excel spreadsheets for online filing, data submissions for the Economic Research Unit, and for providing information to the public. Unfortunately, the structure of the web applications lacks two important factors of good software, flexibility and scalability. When changes to existing services are required or taxpayers request new services the effort to perform those tasks is often excessive.

Online Tax Information System (OTIS)	
Age	3 years
Purpose	• Taxpayers use OTIS to submit tax returns and supporting information, make payments, and review a history of online transactions
Limitation/Problem	• Shares the same server as PFD – no changes between December and May • Online system was originally designed for part of the current functions - the system is not scalable to further additions and changes • For some tax types, the web application allows users to provide information in any format they would like which creates additional work for DOR/TAX to sort and standardize received data into a consistent format for analysis
An ITMS could	• Place online support for tax types on its own server allowing controlled changes as needed • Streamline and standardize data input to decrease taxpayer error • Streamline formats accepted from taxpayers to reduce workload • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

Online Permit and License (OPAL)	
Age	3 years
Purpose	• Taxpayers use OPAL to apply for licenses needed to conduct business and make payments for those licenses • Manufacturers and distributors use OPAL to fulfill requirements of filing monthly reports identifying pull-tab games and stamps
Limitation/Problem	• Shares the same server as PFD – no changes between December and May • Online system was originally designed for part of the current functions - the system is not scalable to additions and changes • For some tax types the web application allows users to provide information in any format they would like to, which creates additional work for DOR/TAX to sort and standardize received data into a consistent format for analysis
An ITMS could	• Place online support for tax types on its own server allowing controlled changes as needed • Streamline and standardize data input to decrease taxpayer • Streamline formats accepted from taxpayers to reduce workload • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries
Public Reports and Queries - Online	
Age	Unknown
Purpose	• Used to obtain information on Alcoholic Beverage Licenses, Fisheries Business License, Gaming Distributors, Gaming Manufacturers, Gaming MBP, Gaming Operator, Gaming Permittee, Motor Fuel Qualified Dealer License, Municipalities Electing to Defer Motor Fuel Tax, Tobacco Approved for Sale and Importation and Tobacco Dealer License Query
Limitation/Problem	• Shares the same server as PFD – no changes between December and May • Only queries information in TAS – information residing in other systems and on Excel spreadsheets is not queried making most reports incomplete and inaccurate
An ITMS could	• Place online support for tax types on its own server allowing controlled changes as needed • Information and communications with taxpayers could be expanded with the possibility for two way communications allowing for web messaging and problem resolution with full tracking and history • Place all information in same database for complete and accurate reporting

4. Visual Studio C# Client Applications

Through careful design, implementation, testing, and deployment of applications, Visual Studio helps build very secure applications. The security technologies provided by .NET, the operating system, and web browsers are available to secure applications. The three applications below do not suffer from security concerns, but they do present more of a maintenance issue because they exist on a different platform from all other applications maintained by DOR/TAX. Integrating these applications onto one platform with other DOR/TAX applications would also reduce redundant data and the need to learn multiple systems.

Offtake Volume Reporting (OVR)	
Age	Unknown
Purpose	• Tracks well head production data submitted to DOR/TAX by Oil and Gas Production taxpayers • Provides Economic Research Unit with data for analysis and forecasting
Limitation/Problem	• Amount of data captured is limited because it requires manual entry into the OVR system - data may be contained in other systems • Time consuming for users to review and search for needed information
An ITMS could	• Allow information currently captured in separate systems or spreadsheets to be included in reports for OVR • Allow upload of EDI information provided to DNR to streamline filing Oil and Gas Royalty Reports and reduce taxpayer burden • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries
Economic Monthly Report (EMR)	
Age	Unknown
Purpose	• Provides information for forecasting models used by the Legislature and Governor's office
Limitation/Problem	• Users must manually gather information, key and format it into MS Excel spreadsheets, upload it to EMR, and export into economic models
An ITMS could	• Streamline process by eliminating the need to gather data through separate methods and manipulating it outside the system • Use standard reporting tools to easily manipulate data • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

Gaming Stamp Manager	
Age	New
Purpose	• Tracks Gaming Tax pull-tab stamps from the time they are ordered by DOR/TAX through the time the game is played
Limitation/Problem	• Does not provide the ability for operators, permittees, or multiple beneficiary permittees (MBP) to file online • Cannot access this information from a taxpayer's Gaming Tax account • Allows duplicate pull-tab numbers to be entered
An ITMS could	• Expand the process to enable operators, MBP, and permittees filing information to be captured along with other information currently captured in one system • All information pertaining to a Gaming Tax account would be accessible from a single location within the system • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

5. Visual FoxPro Application

Visual FoxPro is a program used by DOR/TAX that does not comply with the State of Alaska's IT standards and is not consistent with DOR's designated *Application Development Platform and Database Standard*. There are many risks involved when using FoxPro databases, including the lack of version control, history maintenance, and data integrity as well as a vulnerability to data corruption. Application security when using Visual FoxPro is entirely dependent on locking users out of the application. Storing sensitive taxpayer information in these databases poses a high security risk.

Petroleum Property Tax	
Age	Over 10 years
Purpose	• Assists in the generation of Oil and Gas Property Tax assessments
Limitation/Problem	• In 2009, over $81 million in assessments processed through this application • Functionality similar to that of an MS Excel spreadsheet – users perform primarily work manually • Incomplete – lacking 40% of intended functionality • No IT staff experienced in Visual FoxPro • Minimal system documentation
An ITMS could	• Automate the assessment process using configurable rules designated by the users, statutes, and regulations • Include all needed functionality

	• One system platform to maintain for IT staff • Allow input information to be available in multiple formats for reporting, analysis, and ad hoc queries

6. Side-systems

Information that cannot be captured, manipulated, or compiled in the above systems is managed and maintained in MS Excel spreadsheets, referred to as "side-systems." The functionality utilized in MS Excel ranges from simple data capture of information to advanced manipulation of data exported from within the systems for reporting and tracking purposes.

There are risks involved when using MS Excel spreadsheets for DOR/TAX data. The data may contain sensitive taxpayer information which a spreadsheet cannot adequately secure. Manual capture and manipulation of data presents a high-risk of user error. There is no version control in spreadsheets and a risk of users overwriting each other's work if they are using the same spreadsheets.

In the article "Porting Mission-Critical Excel Workbooks to Web Applications," Mercer (2009) describes succinctly the issue DOR/TAX is experiencing today in the following paragraph:

> "Simply put, Excel is not the appropriate solution for reliable, efficient storage and processing of large amounts of data and it lacks the stability to do this in a safe way. If a user's machine were to lock up during a 20 minute long file opening procedure or aggregate calculation, this could mean the permanent destruction of said spreadsheet due to file corruption. Also, because these files often sit on users personal hard drives and not on managed servers, they often fall outside the net of the IT department's automated backup routines" (p. 3).

This same article makes mention of the limitations of integration for the future when using MS Excel by saying:

> "Excel is an application that plays very well with others. It will accept data in a number of different formats and convert that data to a spreadsheet format and vice versa. Because of these capabilities, many users often turn excel into a conduit for systems integration by using it to take data from certain systems, reformatting it and shipping it off to other systems. Although this is a perfectly acceptable use of Excel's capabilities, it is not a reliable long term systems integration strategy. This is especially true for mission critical systems, for which integrations will often require more advanced features such as record locking, batched transactions with rollback, message queuing, event logging, and scheduled processes" (Mercer, 2009, p. 4).

DOR/TAX pushes the use of MS Excel beyond Microsoft's intended use of the program and is using the program as a long term data storage tool because DOR/TAX does not have other tools available. There are better alternatives for mission-critical programs than relying on MS Excel workbooks within the marketplace. Mercer (2009) summarizes that by implementing one of those alternatives, "The gains in security, stability, and productivity are far from being negligible" (p. 5).

Two areas where MS Excel is the only tool available to management are: Revenue Sharing and Cigarette Tax Stamps Inventory Management.

DOR/TAX calculates Revenue Sharing (**$44 million** in 2009) by retrieving information from the main DOR/TAX database using Sybase InfoMaker queries. The Accounting and Collections Manager compiles bulk data into an MS Excel spreadsheet and manipulates the data to calculate the revenue sharing distributions. This complex process could be incorporated and automatically calculated within an ITMS. The system can populate revenue models, create online analytical processing (OLAP) cubes, and produce standard reports from integrated templates for review by the accounting staff before funds clear for distribution.

The Cigarette Tax Stamp Inventory which generates **$63 million** annually relies completely on MS Excel spreadsheets. An ITMS that includes an inventory module would provide tracking of inventory for comparison with returns information for better compliance.

7. Key Findings

To finance all state government operations, Alaska depends primarily on petroleum revenues. DOR/TAX manages the **$3 billion** Oil and Gas Production and Oil and Gas Property Tax programs using an eclectic mix of authorized and home-grown side-systems. These two programs rely heavily on unsecured, unstable MS Excel spreadsheets even though these programs bring in over **77% of *all* tax revenues**. MS Excel provides for management of return data and is the source of information for Oil and Gas Taxes. FoxPro and some very basic TAS functions supplement the MS Excel spreadsheets. Risks presented by relying on MS Excel and other side-systems for managing these critical revenue programs raises great concern within DOR/TAX.

DOR/TAX constructed the current tax systems as silos of information pertinent to only the tax types they serve because of needs during the time of tax implementation. There does not appear to be an overall architecture plan to the creation of the systems. The current systems make sharing data with other tax systems difficult, requiring custom interfaces or manual processes. DOR/TAX efficiencies are hampered and revenue dollars due the State may remain uncollected since taxpayer and tax data cannot be automatically compared across the different tax types.

> ***"…use of Excel's capabilities…it is not a reliable long term systems integration strategy."***

Tax systems that are designed as silos tend to enable the creation of business processes and rules that are "siloed." Processes that could be the same across the organization are not because they were developed by tax type rather than function. An ITMS would lend itself toward unified business rules and processes, thereby improving operational efficiencies.

B. Gap Analysis - Current vs. Future Business Processes

FAST examined DOR/TAX's current systems and evaluated the current processes. Below is an outline of each of the major processes, including Imaging and Archive, Entity, Returns, Taxpayer Accounting, Payments, Collections, Audit, Appeals, Refunds, Security, and Reporting as they are now, followed by an analysis of what is offered in a standard ITMS. The *Gap* section for each functional area compares the current and future states. Please refer to the business process flow diagrams contained in Appendix E for additional information.

1. Imaging and Archive

a) Current Tax System

DOR/TAX currently images returns, payments, and taxpayer correspondence. The only audit documents imaged are the Oil and Gas Corporate Income Tax documents. Return imaging occurs at different times in the returns handling process depending on the return type. For example, DOR/TAX images Corporate Income Tax returns before examination, whereas they image Charitable Gaming returns after examination. After imaging, paper copies of the documents are gathered and archived.

Main tasks performed in the imaging and archive processes include:

- Generating and printing sheet separators
- Reviewing images and making corrections to them
- Routing paper return documents to different units depending on type and status of the return
- Generating and printing box count sheets for archive boxes
- Obtaining approval from Records Officer to have box of documents archived
- Distributing archive box inventory lists

b) ITMS

An ITMS can provide easy access to images from within the application, providing side-by-side views of the data and the image. Captured images of filed returns can be displayed beside the data input screens, facilitating the data entry of return information. Rules can be set so the system will change focus and zoom in on different segments of the images as data entry operators complete the sections of the online data entry form. In some cases, the electronic copy of the document can replace the paper copy, alleviating the need to archive paper copies of documents.

Integrated imaging provides the following abilities:

- Rotate and correct images
- Create correspondence in the system rather creating, printing, and then imaging it
- Add notes to the image or annotate sections of the image
- Track image details such as date imaged, sequence number, and who imaged the document

An ITMS provides the capability to index images on-line individually or in bulk. DOR/TAX can apply an index to an image captured at the front end of processing, in a standardized process, in many ways to support their processing requirements. For example, DOR/TAX may wish to index an image by:

- Taxpayer
- Account
- Period
- Return
- Payment
- Collections case
- Audit case
- Other cases such as registrations and appeals

c) Gap

One major disadvantage to the current system is the lack of image support for all tax types. Currently, no image support exists for the tax types responsible for bringing in the most revenue to the state: Oil and Gas Production and Oil and Gas Property. Additionally, DOR/TAX does not have the capacity at this time to image Tobacco Licenses, Personal Consumption Cigarette Tax documents, or documents from Appeals. Implementing an imaging process to image documents as they come in the door would provide standardization and tracking of documents received by DOR/TAX.

2. Entity

a) Current Tax System

For the majority of tax types administered by DOR/TAX, the entity must first exist in TAS before any processing can begin. A taxpayer can register through DOR/TAX's online filing program, OTIS, or can send in a paper registration form to be keyed by someone in DOR/TAX. A taxpayer record can have multiple accounts/licenses, each with their own addresses. Even though the taxpayer can have multiple addresses, the Corporation Income Tax account address is selected by the TAS system as the default. An account has the ability to have both a Legal and DBA (Doing Business As) name.

It is difficult to edit taxpayer identification numbers. The tax agent must create a new entity and have the Accounting and Collections Unit transfer the correct returns and payments to the new entity or request the IT Unit make corrections behind the scenes. There is currently no way to validate or standardize addresses keyed by the taxpayer in OTIS, or when keyed directly into TAS. It is very difficult to track all entity and account data for reporting.

b) ITMS

An ITMS allows for consolidated taxpayer information where all attributes and account information for an entity can be accessed from one location.

Identities - An identity is a string of characters used to identify either a taxpayer or an account. An ITMS can automatically assign a unique taxpayer identification number and account identifier to all taxpayers and accounts, respectively. Multiple identities may be recorded for a taxpayer and are the most efficient means of searching for and locating either a taxpayer or an account. Identities for a taxpayer

can be maintained both at the taxpayer level and the account level. Taxpayer identities can be set to be masked for security purposes if required. Changes to identities and multiple identity types are often supported and available for use on correspondence as part of configuration.

Addresses - A taxpayer may have one or more addresses of various types (for example, location address or mailing address). All addresses for a taxpayer can easily be maintained from the taxpayer level, including military and foreign (non-US). In addition, taxpayers may have the same address type at different levels of their account, for example a mailing address can exist at the taxpayer level, and a different mailing address can be active for a specific tax account. The address type can be considered when issuing correspondence. Addresses are commence/cease dated, allowing the system to record official changes. An ITMS can also be interfaced with or include National Change of Address certification to provide for change of address information. Addresses entered can be verified using USPS Coding Accuracy Support System (CASS) to ensure the addresses entered are deliverable addresses.

Taxpayer and Account Creation - In an ITMS a taxpayer can be created with a submitted return, a taxpayer can register through on-line filing, or paper documents can be received and keyed for taxpayer creation. For Corporate Income Tax, the Modernized e-File (MeF) process can provide enough information to create a taxpayer if one does not exist.

In addition, an ITMS also provides the following capabilities:

- Configure multiple name, address, and contact types for each taxpayer and account
- View history of changes made to names, addresses, IDs, and contacts
- Allow correspondence to be mailed to different names and addresses based on the type of correspondence
- Configure site-specific attributes for each account and taxpayer type
- Associate related entities such as corporation to subsidiary corporation
- Provide easy access from accounts to the associated licenses
- Provide communication through flags or notes attached at various levels

Some tax types have no system at all, including the Oil and Gas Production Tax which brings in over $3 billion to the state annually.

c) Gap

An ITMS allows for consolidated taxpayer information with access to all attributes and account information from one location. Using CASS-certified address validation would allow DOR/TAX to receive a discount on postage and would lower the amount of correspondence returned due to invalid addresses. The ability to store multiple addresses, both at a taxpayer level and an account/license level,

and easily select (or let the system choose) the most appropriate address for certain types of correspondence reduces taxpayer confusion and time spent on taxpayer service.

Additionally, an ITMS provides the capability to present a taxpayer financial summary at a glance, view the entire taxpayer and all associated accounts, communicate between units within DOR/TAX about the taxpayer's status or account activity.

3. Returns

a) Current Tax System

Returns processing and examination is currently handled in multiple systems. Some tax types have no system at all, including the Oil and Gas Production Tax which brings in over **$3 billion** to the state annually.

The current return processes:

- Require keeping the return and payment together until the 3-day payment process is complete - examiners do not have access to the return during this time.
- Cannot store all of the required information from returns needed for reporting and analysis.
- Requires re-keying a substantial part of the return multiple times when making an adjustment to a return in the DEE systems.
- Legislative changes cannot be made to the Motor Fuels or Corporate Income Tax system without breaking the system, so new requirements are pushed into side-systems for implementation.
- Put imaging the return at the end of the process, meaning agents are working off of paper returns that can be easily misplaced or lost.
- Require a "Red Sheet" to be filled out for amended mining returns that gives instructions to the IT staff to correct the system behind the scenes.
- Require some returns go through system checks to look for problems; return stops for manual review on problem identification. Many of these checks are no longer necessary, but DOR/TAX cannot change the system to remove the invalid edit checks.
- Once DOR/TAX corrects a return, the taxpayer should receive the corrected information. Unfortunately, the information sent to the taxpayer cannot always be explained by DOR/TAX.
- Data Entry staff keys Oil and Gas Corporate Returns as Corporate Income Tax returns then users convert them back to Oil and Gas Corporate returns; if returns are misidentified then the funds show up in the wrong accounts receivable account.

b) ITMS

An ITMS provides a platform for easily adding and changing return rules and formats. If DOR/TAX determines new reporting requirements, or other conditions change which require new return formats, a modern ITMS allows the update of the return to capture and report on the additional information.

An ITMS provides the capability to:

- Easily configure return error rules for each return type – not just tax type.
- Easily configure fields and schedules for capture after satisfying validation and calculation rules.
- Display fields in the system like they appear on the paper return.
- Generate work tasks and easily assign and track returns that need correction or review.
- Easily change or edit information on a return once entered in the system.
- Log changes to the return, display changed field values, and provide an audit trail of who made the change and when it was changed.
- Allow users to easily amended returns within the application and show all versions of the return.
- Redirect a return (and/or payment) incorrectly applied to the taxpayer, account, or filing period without re-keying it.
- Receive the taxpayer's Federal return information with the state return through the standardized MeF program.
- Configure multiple file formats for taxpayers to provide return information in bulk - XML, import from MS Excel EDI, flat file, through FTP, web filing, or other electronic means.
- Easily track, identify, and action taxpayers with gap periods or non-filed returns.

c) Gap

The current tax systems present multiple procedures that perform, essentially, the same task. An ITMS can, at minimum, simplify and standardize the returns examination process resulting in fewer training hours, better taxpayer service, and faster turnaround time. An ITMS can gather processing statistics to analyze and tune return rules. DOR/TAX can then stop returns that need review and set tolerances to process automatically those that do not. Modern systems allow you to easily adapt to changing forms then capture and report on data from all schedules of a tax return. MeF capabilities allow DOR/TAX to obtain a taxpayer's federal return and the state return through a standard interface thereby requiring the taxpayer to file only once for both requirements. Amended returns could simply overlay the original and the system can calculate and adjust amounts to repost instead of having the examiner re-key the entire return for amended posting.

Legislative changes cannot be made to the Motor Fuels or Corporate Income Tax system without breaking the system, so new requirements are pushed into side-systems for implementation.

In addition to standardizing the returns workflow, an ITMS can present multiple tools to more efficiently manage that workflow. Reporting tools indicate how many returns are currently waiting for review and how many returns stop for each of the different, configurable, return suspension reasons. Reporting tools can also provide statistics on user efficiency including the number of returns worked and the dollar amount of adjustments made. These reports can range from a simple list in the system to automated emails of formal reports when a work list hits above a certain threshold.

4. Taxpayer Accounting

a) Current Tax System

In the current systems, all taxpayer accounting functions are performed manually and are primarily handled by the Accounting and Collections Unit. DOR/TAX performs many of the unit's calculations outside of the system using numerous Excel spreadsheets. DOR/TAX creates assessment letters manually using either a MS Word or MS Excel template. Sybase InfoMaker queries provide the basis for the distribution of shared taxes to municipalities and other stakeholders when the Accounting and Collections Manager manually embeds the results in Excel templates.

The main tasks performed by DOR/TAX include:

- Preparing and sending out bills to the taxpayer
- Sending copies of bills to imaging to attach to the taxpayer's account
- Performing adjustments and abatements
- Performing offsets of credits between tax periods and tax accounts
- Calculating penalties and interest including all refund interest
- Preparing and verifying distributions of shared taxes
- Working with IT to correct taxpayer records directly in the database when the current user interface prevents updates

b) ITMS

An ITMS can automate many of the manual processes currently done by the Accounting and Collections Unit.

An ITMS provides the capability to:

- Automatically generate assessment letters based upon a schedule and data contained in the system paying special attention to flags and other account attributes.
- Automatically calculate and apply consistently and fairly all penalties and interest based on configurable rules determined by DOR/TAX.
- Forecast penalty and interest amounts if DOR/TAX applied a hypothetical payment to an existing debt at a future date. Forecast payment plans and pay agreements.

- Provide a central location for all taxpayer information including taxpayer correspondence, assessment or credit changes, and notes clarifying the reasons for certain actions.
- Store "up-to-the-minute" information on all transactions and track revenue from a taxpayer's account to aggregate funds and funds to subsidiary general ledger accounts.
- Report balances of accounts receivables, payables, funds, and ledger accounts.
- Distribute revenue quickly, accurately, and automatically based upon configuration rules verified by examining pre-distribution information in reports, OLAP cubes, and queries.
- Generate a file processed by AKSAS to update automatically the general ledger for shared taxes fund accounting and subsidiary general ledger accounts adjustments.
- Create revenue models for forecasting, analysis, and economic research.
- Configure tax rates for each tax type, special rate periods for special circumstances, and court-ordered bankruptcy tax rates all through the on-line interface.
- Automatically offset debt on other accounts and periods based on rules determined by DOR/TAX – offsets can occur before billing or refunds to prevent sending out funds and then requesting the funds back from taxpayers.
- Offset refunds between taxes or intercept refunds (or PFD funds) automatically to pay liabilities.
- Adjust transactions with all transactions linked to the source transaction. Examples of adjustments include waivers, write-offs, protests, and petitions for relief.
- Reverse transactions that completely reverse a particular transaction from an account. The reversal transaction is associated with the original transaction to record the action. System can maintain history and provide who and when information for all transactions.
- Maintain filing periods and associate period attributes to taxpayers' accounts. Attributes provide the source for business rule configuration in returns or selection data for reports.
- Validate write-offs and write-off debts in bulk to retire uncollectable debts.
- Track offsetting credits and debits, adjust small balances, split transactions, and process external transactions.
- Participate in the IRS Corporate Taxpayer Offset Program that allows state agencies to intercept federal income tax refunds and apply them to delinquent state tax debt.

c) Gap

Alaska citizens from 5 municipalities, 13 boroughs, and 106 cities benefit from an accurate and correct distribution of the shared taxes managed DOR/TAX. Manual actions are responsible for ensuring DOR/TAX distributed shared taxes of over **$44 million,** to 124 communities throughout Alaska in 2009 (*Shared Taxes and Fees*, 2009). The current systems available to DOR/TAX offer only 48% of the capabilities available in a modern ITMS; only 3% of these take advantage of automation. Reducing tedious manual processes should allow for greater oversight and validation to ensure DOR/TAX distributes these critical funds accurately and efficiently.

In the current systems, DOR/TAX only sends bills when they first establish delinquency (excluding various collections notices discussed in the *Collections* section). Evidence from other jurisdictions indicates that the process of sending out a monthly bill increases revenue collection simply by keeping the debt fresh in the mind of the taxpayer - most taxpayers pay their bills when they receive reminders to pay, and when it is made easy for them. As an example, shortly after implementing their ITMS, the state of Montana saw a 39% increase in collections attributed, in part, to automatically sending account statements every month.

A full-featured ITMS provides a rich suite of functionality to maintain and report on taxpayer financial activity individually or en masse. By employing an ITMS, DOR/TAX could provide a better picture of the state of revenue with less manual effort and more precision.

5. Payments

a) Current Tax System

DOR/TAX accepts payments received through the mail, from walk-ins, from wire transfers, and from web applications. DOR/TAX follows different procedures for handling payments depending on whether they accept the payment in Juneau or Anchorage. There are four different internal applications, one external bank application, and many Excel spreadsheets used to track and process payment information.

The main payment tasks performed by DOR/TAX include:

- Manually keying payment information into CPS
- Reviewing the payment information in CPS - validated by three different people, by manually handling multiple documents
- Researching and applying payment information in TAS - often having to rely solely on the Accounting and Collections Unit for payment information
- Allocating single payments across multiple tax periods
- Depositing domestic checks to the bank through software provided by the bank
- Researching and analyzing accounts to figure out the amount of debt that should be credited

b) ITMS

An ITMS would streamline and simplify payment processing and maintenance. It would accept payments from all sources then use one system to process them. All payment information in the system would be accessible to all users with the proper security permissions. Information about payments entered into the system is available for reporting through numerous methods.

An ITMS provides the capability to:

- Secure payments manipulation to only users who should be able to make changes to the payments, but allow all users to view the payment information.

- Provide pending payments functionality to hold a payment until receipt of a return or posting of an audit, then automatically apply the payment upon receipt.
- Allow multiple payment types for more accurate payment application and better reporting
- Receive payment batches from multiple external sources for uploading payment information including electronic funds transfer, e-check, remittance processing, and credit card payments.
- Apply and direct payments to taxpayer accounts automatically. Allow payments to be split to different periods or accounts, either manually or automatically, according to configurable pay-off rules.
- Create payment batches on-line to process in the same manner as payment batches that are received from remittance processing machines. The same controls including batch validation are applied to batches processed using this function.
- Validate payment batches to ensure the batch has not yet processed, the batch is from a recognized data source, and the header information is consistent with the detail records
- Generate work tasks for batches and payments that cannot be processed automatically - queuing them for assignment, expedient tracking, correction, and resolution of issues
- Reverse a payment with a configurable reason to facilitate reporting and additional processing and then in the same transaction reverse all associated applicable transactions sourced from the payment
- Handle non-sufficient fund checks and notice of change files from banking institutions to debit taxpayer's accounts in order to recharge fees, add penalties, and reestablish tax liabilities as necessary
- Search for payment batches and individual payments using combinations of known information (e.g., check number, bank information, receipt date ranges, amount, or transaction number)
- Create processing documents to direct the payments not included in batches to multiple directions as necessary
- Track taxpayer banking information from checks received for payments
- Process ACH and IAT payments initiated by the taxpayer to debit the taxpayer's bank account
- Process change and correction files to update existing bank account information in the system or determine if specific ACH or IAT payments failed

c) Gap

Accepting payments is a critical part of any revenue agency. Currently all payments must be manually applied against a debt. An ITMS can automate this process. An ITMS can automate splitting a tax payment across multiple tax periods as well as multiple tax accounts. Payments can process differently depending on the payment source, e.g., a payment coming in without a return can hold waiting for a return, or a payment coming in with a bill can post immediately. DOR/TAX can report on different payment types separately or account for them differently. For example, DOR/TAX can designate a payment type to post to the Constitutional Budget Reserve Fund.

DOR/TAX has provided many avenues for taxpayers to make payments. The current payment batch entry and validation principles should not be lost when implementing an ITMS but rather improved upon. Adding the functionality provided by an ITMS to the current processes would provide enhanced visibility, better reporting, and increased clarity for users working with taxpayer accounts.

6. Collections

a) Current Tax System

In the current systems, all collections processing is manual. A DOR/TAX technician identifies a potential collection case and forwards it to the collector either by email or on paper.

DOR/TAX performs the following tasks manually:

- Tracks all collections in MS Excel
- Creates and stores all correspondence on paper
- Tracks all collection staging dates in MS Excel
- Files and tracks all liens and levies in separate MS Excel spreadsheets from the collection case
- Creates and tracks all payment plan agreements on paper and in MS Excel
- Retrieves bankruptcy information from multiple sources even if not connected to a collection case

b) ITMS

An ITMS provides the capability to:

- Provide automatic collection creation and staging.
- Provide automatic detection of payments.
- Provide automatic issuance of correspondence.
- Provide system tracking of collection stage and status and predict next steps.
- Provide levy and lien filing and tracking tools to create, search for, view, add periods, set line stages, add lien letters, view lien histories, and perform lien extensions.
- Share lien information with outside agencies and release liens in en masse.
- Provide bankruptcy tools, including automatic notice of taxpayer bankruptcy, electronic claims creation, and special handling of bankruptcy accounts. Use Electronic Bankruptcy Notification (EBN) technology through a free service provided by the Bankruptcy Noticing Center which enables federal bankruptcy courts to send notices electronically instead of in paper form.
- Provide collections recovery tracking and reporting.
- Associate images, received correspondence, pictures, and evidence to collection cases.
- Provide workflow tracking, assignment, and reminders.
- Provide risk calculation to increase collections efficiency.
- Create correspondence within the system automatically or from user intervention.
- Provide communications and indication that an account is involved in collections.
- Track and report on collections activities and recoveries.

- Maintain payment agreements and enable forecasting of payoffs by installment amount, or frequency of payment, and then monitor the taxpayer activity to ensure the taxpayer honors the agreement according to configurable integration rules.
- Establish garnishments, add debt sources, correspond with garnishees, and add garnishment vouchers.

c) Gap

The current systems in place only provide 32% of the capabilities normally found in modern tax divisions and DOR/TAX must perform all of these functions manually. The manual actions ensure DOR/TAX collects approximately **$12.7 million** in unpaid revenues each year.

The capabilities of an ITMS can reduce the reliance on many manual collections processes allowing collectors to focus on cases that are more difficult. Automating collections processes will increase efficiency which will in turn bring in more potential revenue to the state in a timelier manner. A modern ITMS should provide the ability to use accurate data to increase fairness in automated collections actions. The system should provide the ability to track the amount of money collected using each specific collections action, thereby allowing DOR/TAX to determine which actions to concentrate on for maximizing revenue collection.

Because the process is currently manual, it is not impossible to tell how much revenue goes uncollected or quantify current opportunities in this area. Experience in other jurisdictions does, however, provide proof that compliance increases when agencies establish regular and consistent billing and follow up with the taxpayer regularly soon after establishing the debt.

DOR/TAX may not need all of the tools described above immediately to follow up on existing collection cases. However in interviews with users, they frequently mentioned how upstream manual processes in other areas prevent the posting of returns and payments. When those areas become more efficient because of an ITMS, there may be more of a need to increase compliance efforts and for collectors to have the tools available to handle the increased workload.

7. Audit

a) Current Tax System

Note: When considering auditing, we make a distinction between auditing a return as it processes through the system and auditing a taxpayer's filing history after the returns post. The returns processes and procedures considered above cover the return reviews and individual return or desk audits. This section considers the field audit, normally performed at the taxpayer's location, conducted after receiving more information than provided on the returns.

Audit selection: In the current systems, there are several ways to determine which accounts to audit. Some units select audits based on a specific credit, some work off an audit plan, and others leave audit

selection to an auditor's discretion. One constant across all tax types is that the auditing process is manual.

The main audit tasks performed by DOR/TAX include:

- Identifying which taxpayers to audit
- Contacting taxpayers
- Creating correspondence using MS Word
- Determining audit findings using MS Excel
- Tracking statutes of limitation using MS Excel using a different spreadsheet
- Tracking outstanding audits and audit stages using an MS Excel tracking spreadsheet
- Preparing Audit Adjustment Reports and Tax Adjustment Reports using MS Word
- Keying audit data into the appropriate system to post audit

b) ITMS

An ITMS can automate many of the above processes as well as provide extra functionality to make the entire audit process more efficient and fair.

An ITMS provides the capability to:

- Manage audits in progress and report on audit recovery results.
- Manage audit details, track the statute of limitations, consider transactions in previous periods, view previous audit information for the taxpayer, and report on audit sources.
- Create and maintain work papers that contain detailed or summary information prepared in the system or imported from other sources.
- Import previous return history automatically into work papers reducing audit preparation time and manual re-keyinging of returns used in the audit.
- Create templates for work papers to allow the auditor to store the data, statistical information, and calculations that result in audit findings and adjustments. The work papers may be complex, taking into account external audit data, or a simple recording of findings from an external audit mechanism.
- Configure and track work papers to share between tax types or unique to each tax type.
- Configure multiple layers for review of work papers and/or the entire audit to allow for peer and manager concurrence and approval while providing status tracking.
- Use timekeeping tools to help auditors track and report their time spent on the audit or in audit-associated training, office processes, or other related time.
- Manage reporting tools for audit selection basing the decision on internal data, previous audit data, external data, warehouse data, or other sources.
- Automatically create audit adjustment reports based on information in the work papers.
- Allow auditors to work from anywhere using downloaded information, remote connection, or standalone capability.

- Automatically issue correspondence based on audit selection or information stored in the audit record.
- Associate images, received correspondence, pictures, and evidence to audit cases.
- Provide workflow tracking, assignment, and reminders.
- Prevent or allow certain actions on a taxpayer's record while the audit is in progress or after an audit posts to a taxpayer's account.
- Lock payments received during the audit so the system applies the credit only to audit liabilities as instructed by the taxpayer.
- Provide for due process and retention of taxpayers' rights while ensuring audit details are available for review and the processing of appeals.
- Allow other users to identify when an account is under audit, who is performing the audit, and what periods are involved in the audit - even if they do not have the security to view any other audit details.

c) Gap

DOR/TAX audit coverage is limited because, in some units, auditors are so busy ensuring the input data is correct they never get time to perform audits. As other parts of an ITMS receive automation enhancements, auditing may become routine and auditors may have more time to perform audits to ensure compliance and increase taxpayer knowledge. When this happens, the current tools will be insufficient to ensure the selection for audit is fair and equitable. An ITMS can provide the necessary tools to perform audit selection fairly and conduct audits more efficiently. Reporting tools can base their inputs on work performed and allow managers to measure and monitor results and distribute the workload fairly to auditors. Improved data accessibility provided by an ITMS should help determine which accounts will make better audit candidates.

With increased efficiency in other functional areas and by using automated selection tools, DOR/TAX should be able to perform better audits and include additional compliance audits in their audit plans. Compliance audits can bring in new, currently uncollected revenue. Timekeeping tools will help DOR/TAX track auditor actions, determine the most effective actions, and increase training or improve processes in areas that need attention. An ITMS will ultimately provide auditors with the capability to focus on auditing instead of spending their time "herding data" like they have to with their current systems.

8. Appeals

a) Current Tax System

The DOR/TAX Appeals Unit is currently responsible for processing between 50 and 100 appeals a year. Appeals information is stored and tracked externally using MS Excel spreadsheets until DOR/TAX reaches a decision. Users post all decisions manually to the system and make any adjustments manually.

The main tasks performed by DOR/TAX include:

- Receiving and processing requests for appeals
- Logging appeals into an MS Excel spreadsheet and tracking them
- Retrieving supporting documentation for appeal
- Maintaining correspondence and discussion with the taxpayer
- Interacting with other divisions to make sure inappropriate contact does not happen while the appeal is ongoing – for example, mailing collection letters to the taxpayer

b) ITMS

An ITMS has the ability to track and maintain appeal information during the appeal review rather than as an additional task in the appeal process. Tracking all appeal information in one system can consolidate appeal information, reducing the effort to collect appeal documents.

An ITMS provides the capability to:

- Secure appeal information to prevent unauthorized users from viewing and editing.
- Easily identify accounts involved in appeals to prevent inappropriate contact even for users without the security to view the appeal.
- Track appeals stages, statuses, decisions, and resolutions including who performed the tasks and when the tasks were completed.
- Link appeal cases to taxpayers based on the rules configured for a given appeal type. The case can stand independently and need not be associated with a particular taxpayer, account, or to the exact transaction under appeal.
- Define the business activity of processing an appeal including the configuration of steps, stages, decisions, and actions taken to perform the activity.
- Manage appeal documents, correspondence, and associated information.
- Stop certain automatic and manual processes during the processing of an appeal.
- Report aggregate or individual, historical, process, and procedural information resulting from appeals for business process improvement.
- Associate images, received correspondence, pictures, and evidence to appeal cases.
- Provide workflow tracking, assignment, and reminders.
- Report activities to higher appeal authorities with full disclosure of information from a central location within the system for cases that cannot receive resolution within DOR/TAX.

c) Gap

The biggest advantage an ITMS has over the existing system is the ability to identify which accounts or returns are currently in appeals. An appeal flag can prevent certain automated processes on an account. An example of this might be to stop collection activity for an account that is under appeal. An ITMS can also secure appeal information so that only those involved in the appeal can view and edit appeal information.

9. Refunds

a) Current Tax System

The refund issuance process involves many different people from the Accounting and Collections Unit as well as the appropriate tax type staff. DOR/TAX creates correspondence for refunds outside the system and spends time manually reviewing documentation and keying information into TAS, AKSAS, or an MS Excel spreadsheet. The only automated processes performed in AKSAS occur once DOR/TAX hands off the refund to the Treasury Division for issuance.

The main tasks performed by DOR/TAX include:

- Reviewing paper documentation for each refund request to verify that a refund or credit is available to issue.
- Using MS Excel spreadsheets to track refund details not tracked in the system such as refund status, issued date, and warrant number. DOR/TAX must update the spreadsheet multiple times throughout the refund process.
- Manually offsetting other debt owed prior to refund issuance.
- Manually calculating and applying any refund interest owed to the taxpayer.
- Manually entering information into AKSAS.
- Manually downloading information from AKSAS after a refund issuance to update the DOR Tax system.
- Mailing refunds to the taxpayer with supporting documentation if the refund amount is $50,000 or more(the Treasury Division mails refunds under $50,000 directly).

b) ITMS

An ITMS can ensure refunds are paid accurately and on time. It can automate many of the manual research processes currently performed and interface with external accounting systems, such as AKSAS, to provide quick and accurate turnaround to the taxpayer.

An ITMS provides the following capability to:

- Automatically create files to be processed by AKSAS rather than users re-keying information
- Automatically create of refund requests based on configurable rules designated by DOR/TAX
- Configure refund review rules with separate rule set for different tax types
- Configure multi-level approval for refunds

- Send a refund out as either a paper check or direct deposit
- Add refund-level notes for additional documentation on an individual refund
- Automatically post of refund interest based on applicable rules
- Automatically offset debts on different accounts for the same taxpayer
- Secure refund approvals to only allow certain users to approve refunds
- Deter fraud by detecting the number of refund checks to the same address/bank account, stopping refunds for suspected fraudulent taxpayers, and alerting users to suspect activity

c) Gap

The current process for issuing refunds is manual and very inefficient. It involves moving paper and emailing between the source unit and Accounting and Collections Unit, sometimes multiple times for the same refund. It also involves manually calculating refund interest, offsetting money to other accounts on the taxpayer, and entering information into AKSAS. An ITMS can automate most of the current process as well as eliminate the need to track refunds in an external spreadsheet. Approvals can happen between different units, but issue research can happen within the system and each party involved can receive an alert when a refund-related action is necessary. Configurable refund interest and offsets rules can apply allowing automatic posting upon refund approval. Refund information can pass back and forth between an ITMS and AKSAS automatically without human intervention. An ITMS provides a more efficient refunds process with less manual intervention, less manual calculations, and a quicker turnaround for the taxpayer.

One way to control fraud is through checks and balances integrated into an ITMS with change points only allowed through tracked and approved modifications.

Refund fraud is a big industry concern in tax departments at all levels of government. One way to control fraud is through checks and balances integrated into an ITMS with change points only allowed through tracked and approved modifications. The current system lacks these controls.

10. Security

a) Current Tax System

In the current tax systems, security is handled on two different levels. The first level of security consists of a user name and password to log into the system. The second level of security is a position-level security. Each user is assigned to a specific position in the system. Each position possesses different permissions to perform different actions. In addition to those, there are some exceptions where a

function is locked down to one or two users. In this case, permissions are usually hard-coded in the application.

b) ITMS

An ITMS will provide built-in security functionality for the application that is configurable, flexible, and easily changeable from within the application.

An ITMS provides the capability to:

- Secure different areas of the system using configuration.
- Secure individual links and buttons in each area using configuration - allowing separation of duties.
- View which taxpayers a user has visited and the actions performed on that taxpayer.
- Allow certain users to view information on certain taxpayers.
- Secure all information within the system.
- Add and edit users along with the roles assigned to them.
- Terminate a user's ability to access the system.
- Transfer one user's security settings to another.

c) Gap

An ITMS can provide more robust security and greater flexibility than the current systems. An ITMS puts all taxpayer data behind the same security wall to protect sensitive, confidential taxpayer data.

11. Reporting

a) Current Tax System

The current reporting capabilities are, for the most part, manual. There are some pre-defined reports that can be requested from the IT staff, but those rely on the information stored in one of the systems. Often, all the information needed for a report is not captured in the systems but must be gathered from paper documents and MS Excel spreadsheets then combined with the information from the automated systems.

The DOR/TAX Annual Report takes five to six months to compile.

Limitations of the reporting processes include:

- Most reports are created through a very resource-intensive, manual process in which data must be gathered from multiple sources
- The DOR/TAX Annual Report takes five to six months to compile
- For requests from outside agencies, including the Legislature, tax agents must be taken away from their daily responsibilities to compile data from multiple sources, a process which can take anywhere from a day to a couple weeks

- Some data is not available, and some numbers are unreliable, making some requests for data impossible to fulfill
- Limited data is captured off the return making it necessary, at times, to locate all paper returns from multiple boxes currently in storage

b) ITMS

An ITMS can provide automated reporting capabilities that do not demand users' time allowing them to perform their assigned duties. Since an ITMS can easily be changed to capture additional or new information, those details can easily be incorporated into new reports.

An ITMS provides the capability to:

- Locate and associate data within the system
- Present data in multiple formats, lists, and formal reports and manipulate the way data is viewed
- Configure reports within the system
- Automatically generate reports - daily, weekly, monthly, annually, etc.
- Automatically deliver reports by email
- Generate reports in real-time
- Store generated reports for a designated period of time
- Generate a PDF version of a report
- Store all data in the same system

c) Gap

While DOR/TAX has some reporting capabilities, there is a large gap between the current process and what an ITMS can provide.

An ITMS equipped with robust reporting capabilities can alleviate the current reporting pains. With all data for all tax types in the same place, canned queries and reports can be developed for reports that need to be run on a consistent database. OLAP cubes can be used to pull in a large set of data and allow the user to manipulate that data until they get the information they need. Plain English querying tools can allow a user to write simple queries without a programming background. These tools can provide accurate numbers quickly, without the extraordinary effort currently required.

Limited data is captured off the return making it necessary, at times, to locate all paper returns from multiple boxes currently in storage.

C. External Stakeholder Input

1. Current State

Stakeholders were asked several questions to formulate external perceptions of the current state with respect to DOR/TAX. Specifically, stakeholders were asked about DOR/TAX's reputation and services they currently receive. In the context of providing information about improvements to tax administration and additional services they would like to see DOR/TAX provide, insight into the current operating environment was also obtained. This feedback is particularly useful in determining how the limitations of existing systems and business processes affect external stakeholders.

a) Tax Division's Reputation

Stakeholders were asked,

> "Based on your interactions with the Tax Division, are there a few words that aptly describe their general reputation?"

By far, the most frequent response was, "responsive." It was noted that agency staff are "helpful, knowledgeable, and pay a high attention to detail." One observed, "The Tax Division has a great reputation for being helpful when taxpayers call," and another one said, "I rate them very high. They're accessible and provide good information. In one word, they're outstanding."

The professionalism of staff was specifically lauded. "They are professional and competent" and DOR/TAX is able to "hire good people and hold onto them." One stakeholder noted, "It's important that auditors understand good accounting principles, and Tax Division auditors do. That's not true with other agencies."

Several stakeholders mentioned the high caliber of employees in the economic section, calling them "competent," "respected," and "professional," capable of producing a "high quality product," even though they "occasionally struggle with their forecasts" and "have limited capabilities due to the limitations of the Tax Division's systems."

Personal characteristics mentioned in the interviews included "honesty" and "integrity." Several taxpayers noted that DOR/TAX seems to have a "very personal relationship with the taxpayer" and the "quality of the relationship is different – better – than in other jurisdictions." "The Tax Division has an open line of communication and I don't want to see that change. Their customer service is good – employees are friendly and helpful."

Although the number of stakeholders interviewed was small, two very different opinions emerged about audit staff's knowledge of the industries they are auditing. One taxpayer was very complimentary, "The Tax Division's people are more knowledgeable about the industry than most tax agencies. This helps them understand the context with which they're interpreting and applying regulations. It's clear the Tax Division values training and provides training to their employees – they don't outsource the training process to the company being audited."

Another taxpayer had a very different perspective,

> "The Tax Division has lost a lot of expertise and they don't appear to be training their new people about the industry. Companies shouldn't have to provide industry training to auditors, although we've given them ample training sessions and tutorials. At some point, the Tax Division should be able to use this information to train their own people."

While DOR/TAX was lauded by some as being a "good listener," another noted, "they listen, but they don't seem to hear what you're saying. There are opportunities to interact, but sometimes you feel like you're talking to a brick wall." Similarly, one taxpayer felt as though DOR/TAX, "operates in a vacuum – they do things without involving us, without seeking our participation." Another taxpayer felt, "they need more of a business acumen, more of a business sense."

Two stakeholders described the DOR/TAX as "inflexible" and "rigid," but one added, "…maybe that's something you want in a tax agency." The other was less forgiving, "I have found their views to be rigid, and they don't try to understand your business. They don't have the empathy you might expect."

Numerous stakeholders noted DOR/TAX is "under resourced with technology" an observation confirmed in conversations with a DOR/TAX employee who revealed, "word is out – taxpayers know our systems are broken."

Another stakeholder who was quite positive in their overall assessment of DOR/TAX noted, "On the negative side, if they don't like something, they'll write a regulation to get their way." Yet another observed, "The Tax Division has good intentions, but they aren't able to provide timely information for us regarding regulations and new legislation."

One interviewee's comments focused on taxpayer service,

> "As a small business, knowing what we need for registration, forms, permits, etc. is hard, especially when you're going through it for the first time. When I tried to find out what I needed, my interaction was cold. They should strive to be more business-friendly, more customer friendly."

b) Current operating environment

Numerous stakeholders noted DOR/TAX is "under resourced with technology" an observation confirmed in conversations with a DOR/TAX employee who revealed, "word is out – taxpayers know our systems are broken." One stakeholder commented, "You can't call yourself professional if you don't have a system that supports the efficient collection of data."

> ***"We file reports – but it's not clear what they do with the information because when an auditor shows up, they ask for the same information again."***

By far, the most common and consistent message was directed to the limitations and inflexibility of existing systems that impose a burden on taxpayer reporting and severely limit information available to legislators, executive agencies, and local governments.

Taxpayers were vocal in expressing their concerns and complaints about the need for duplicative reporting and the way in which information is collected,

> "Sometimes the same information needs to be reported three different ways for different systems and different sections. There is a high level of redundancy of reporting."
>
> "Taxpayers are asked to repeatedly provide the same information. If it was possible for systems to share data internally, they could avoid duplicative reporting by taxpayers."
>
> "The Tax Division doesn't understand the needs of large taxpayers – they aren't able to collect information in an efficient and effective manner. They ask for everything in an MS Excel spreadsheet but, as a large taxpayer, that simply doesn't work. Their latest request is for a spreadsheet with 95 tabs. The Tax Division uses FoxPro, but FoxPro is outdated and needs to be replaced."
>
> "The Tax Division keeps asking for the same data in different ways and in different formats – auditors need it one way, economists need it another, etc. They should be able to put the data into one system and extract it for whoever needs it and for whatever purpose they need it. There has got to be a better way – and spreadsheets are not the answer. For a taxpayer to have to hire someone to input data into a spreadsheet is backwards and very inefficient. It creates a lot of unnecessary work and cost."
>
> "The current process is inefficient and ineffective. It requires taxpayers to provide the same information multiple times. It is clear Tax Division's existing systems cannot organize and

> retrieve information very well. When the agency needs information, they ask for it from the taxpayer rather than retrieving it from their systems. That seems very inefficient."
>
> "We file reports – but it's not clear what they do with the information because when an auditor shows up, they ask for the same information again. Apparently, it's easier for them to get the information from us than to retrieve it from their systems."

While taxpayers find it difficult to report data, consumers of information including the legislature, executive branch agencies, and local governments commented on limitations on the information available to them. One stakeholder noted,

> "With the new Oil and Gas Tax, it's been a real struggle to get information from the Tax Division in any detail, especially for credits. We'd like to know answers to questions like how many taxpayers have applied, what is the revenue effect of each, and so on."

The value of this type of information was reiterated by another stakeholder,

> "We're interested in getting more information about tax credits. There are a lot of them, and it would be nice to have more info – What are they? Who's using them? How much do they cost? Are they working?"

Inflexibility in the way data is gathered and stored limits the ability to report information in ways stakeholders find would be useful. One stakeholder shared a specific example,

> "We requested the agency to present revenue production by oil field. The response we received was that information is structured by company and not by geographical area."

For purposes of accurate budgeting, one stakeholder emphasized the importance of the information provided by DOR/TAX,

> "We want access to all the information we need to estimate revenues. We need a further break down of the information. They mean well and they're getting closer, but they're not there yet."

Another stakeholder agreed,

> "We would like to see information presented on more of a cash flow basis – currently we see revenue net of credits. We'd like to see the total value with amounts that break out the royalty values, the production base, and so on. That would give us a lot more information, both for forecasting and for policy purposes."

Another topic that surfaced in stakeholder interviews was the timeliness of regulations and tax forms,

> "The biggest issue is timeliness of regulations. It's difficult to operate without regulations, instructions, and definitions – you're not sure how to report and you can't understand nuances."

The lack of a stable Oil and Gas Tax return was also cited as a problem, "It is simply not clear what we're supposed to file."

While taxpayers were vocal in expressing the need for tax forms and more guidance, at least one stakeholder noted,

> "The Legislature gave the Tax Division a huge job with the new Oil and Gas Tax, and the tax is incredibly complicated. Industry wants them to be done with their regulations already and companies want different interpretations. This is something the legislature is watching closely and they know it's a hard job. I'd say to the Tax Division, *don't lose focus*."

One stakeholder also mentioned concerns with the audit process noting,

> "Some audits take a long, long time. Difficulties getting interpretations make the process even more drawn out and complicated."

2. Future State

One of the most significant aspects of planning for the future is taking into consideration the needs of external stakeholders.

To obtain stakeholder input, two questions were posed to interviewees:

- In your opinion, is there anything DOR/TAX should be doing to improve tax administration? Are there areas that should receive additional attention and focus?
- Are there additional services you would like to see DOR/TAX provide?

Responses to these questions are organized and summarized based on the topics that were raised in interviews including: system improvements, reporting, and information sharing; electronic filing; taxpayer services; and other issues.

a) System Improvements, Reporting, and Information Sharing

Both taxpayers who are required to report data to DOR/TAX and stakeholders who rely on information from the agency cited the value of having a more modern and robust way to store and retrieve information. Taxpayers mentioned their desire to see an increase in the efficiency of their interactions with the agency,

> "The Tax Division should be able to retrieve information from one system rather than require taxpayers to provide the same data many times."

> "They need an automated system so they don't have to ask for the same information multiple times. Taxpayers should be able to provide data once, and the agency should be able to slice and dice it anyway they need to."

> "They should be able to put the data into one system and extract it for whoever needs it and for whatever purpose they need it."

> "The Tax Division needs a system that can organize and retrieve information while protecting and safeguarding confidential taxpayer information."

Taxpayers also mentioned the importance of consistency and predictability in their interactions with the agency, "We want a stable platform, not something that keeps changing all the time."

One important characteristic repeatedly mentioned by those who rely on information and reports from the agency is the need for flexibility,

> "A nimble system would allow the Tax Division to be more responsive and not spend as much effort as they currently do producing information and reports."

> "Flexibility is king. Quickly adapting to change is important for new revenue streams."

> "Make changes easy to implement. If changes cannot be made quickly someone will make a 'side-system' to go around the automation. Necessity is the mother of invention. If the people maintaining the system cannot be responsive then someone will build a side-system."

> "Alaska updates its technology very infrequently. The Tax Division will need to be able to adapt to the future – the possibility of new tax types or changes to current taxes. The legislature will make revisions to the Corporate Income Tax, mining taxes, and so on in the future. Flexibility is important along with the ability to work with new data. The more tools they have for analysis of data the better."

"The Tax Division needs a system that can organize and retrieve information while protecting and safeguarding confidential taxpayer information."

New ways of presenting information was also described as an important enhancement,

> "As a big user of data, it would be nice to see the Tax Division move to more of an internet basis for reporting information rather than all paper and publications. I'd like to see more innovation in how information is displayed and communicated, along with the ability to slice and dice data so you can see details and trends."

> "A lot of what we see is very static. You can't drill down into the data. The agency could do a better job of presenting data."

Some of the agencies that receive information from DOR/TAX including local government expressed a desire for more comprehensive data sharing agreements so they could access better and more complete information. It was also mentioned that it would be nice if the economic resources of the DOR/TAX

could be made more accessible to other agencies in government to increase the sophistication of analysis that is currently not possible.

b) Electronic Filing

Improvements in electronic filing were cited frequently as a means to improve tax administration,

> "We work with many different jurisdictions and, in comparison, the Tax Division needs a better platform to ease electronic reporting. They don't seem to benchmark with other jurisdictions to see how well they're doing or how they can improve."

> "Our number one priority is EDI (*electronic data interchange*). Reporting on spreadsheets multiple times is frustrating and extremely inefficient."

> "I'd like to see a state-of-the-art online tax filing system that can minimize the time and effort it takes for taxpayers to file."

While large taxpayers spoke of the need for EDI, the desires of smaller taxpayers were different. The need for simplified filing in general was stressed, of which electronic filing was an important part. Options currently exist and it was noted, "Their progress towards on-line filing is good" and "They're more innovative than other departments when it comes to on-line filing and renewing permits." One stakeholder stated,

> "On-line filing for small taxpayers is a nice service. However, it should not be mandatory since not all small taxpayers have computers. Once it becomes mandatory, it stops being a service."

The requirement to file the same information with different agencies was also noted.

> "Much of the information filed is identical, but you have to complete two different forms for two different agencies. Isn't there a way to complete one form that satisfies both agencies?"

> "Because different agencies have different systems, you have to log on multiple times. It would be nice if all of your interactions with multiple agencies could be handled electronically in a single transaction. That seems to be the direction things are going."

c) Taxpayer Service

A number of improvements in taxpayer services were mentioned, starting with a diligent push to make it as easy as possible to conduct business with DOR/TAX.

> "They should work hard to make it easier to do business. Simplicity should be their focus. People don't like paying taxes, and you should make it as simple as possible."

When asked about new services, one stakeholder responded,

> "I'm not as interested in new services as just trying to provide the right level of services. The Tax Division has regulations, but not at the level that would be useful."

Another stakeholder made the same point,

> "We would welcome timely, precise, and clear regulations together with the opportunity to provide feedback on proposed regulations and forms. The tax system should be self-administering – but it can't be without timely, precise, and clear information for taxpayers."

According to one interviewee, "Their goal should be that taxpayers have all the information they need."

Access to regulations was also brought up as an important issue,

> "It should be easier to access regulations – they need to be easily accessible, not just in a thick binder. Active taxpayer education is important."

> "Efficiency of customer service is something to work on. Excellent customer service is more than being nice. It means having all the information a taxpayer needs in one place so they don't have to call back five times to get what they need."

Several other ideas to improve tax administration were mentioned in various interviews,

> "It's important that people receive a notice and a reminder of what they should pay. People have so many different obligations, and notifications and reminders are very helpful."

> "As a taxpayer, it would be nice to be able to get a preliminary view/ruling regarding your filings. They offer that on an advisory basis, but it would be helpful to have something you can rely on."

> "My company is a big believer in statistical sampling. The Tax Division seems a little resistant. The agency should be using modern, valid techniques for sampling that, in turn, impose less of a burden on taxpayers."

> "There should be an easier way for innovative ideas (especially by small companies) to flourish without getting stifled by regulations. There is a need for more flexibility when it comes to the licensing of new products and process types."

d) Other Issues

As interviewees talked about actions DOR/TAX could take to carry out its mission and vision, several discussion points surfaced,

> "Maybe the agency is already doing this, but they should be working on and thinking about tax reform ideas for the future. Our revenues are trending down, so hopefully they're thinking about sources and options other than oil and gas."

> "As tax administration issues bubble up, the Tax Division should be making the legislature aware of them. Their mission statement includes *informing stakeholders*. When issues come to the attention of the legislature, it means they didn't get satisfaction from the Tax Division and it would be helpful if they could be more proactive in letting us know about those issues."

> "One big concern is if there are enough resources for audit, especially with the new tax regime. It's important to make sure they have money for the auditors they need to make sure the state is not being cheated."

e) Valuable Service to Maintain

Another question asked of stakeholders was,

> "Are there valuable services the Tax Division provides that you want to make sure they continue providing in the future."

Sometimes as organizations shift their attention to new challenges, they may overlook the importance of current activities that are valued by their stakeholders. This question was meant to help identify those types of valued services.

Responses to this question included the following,

> "The Tax Division cannot be derailed from its primary mission which is compliance and the collection of tax dollars."
>
> "The Revenue Sources publication" and "Input for the 10-year forecast."
>
> "Accurate reporting including motor fuel data reporting."
>
> "They have open lines of communication, and they shouldn't give that up. Customer service is pretty good – they're responsive, friendly, and helpful, and that should not change."
>
> "The agency has a great web site and it's easy to find information. They need to keep that up."
>
> "Their ability to provide good customer service to applicants and taxpayers is good; they answer phones quickly."
>
> "We wouldn't want the Tax Division to change the quality of their relationship with us – they have a very personal relationship that is different than most agencies in other jurisdiction."
>
> "The most valuable service they provide today is communication and accessibility. The ability to call and talk to someone is great."
>
> "I'd like to see them continue holding workshops and meetings prior to adopting regulations. These allow dialog and opportunity to express opinions and concerns. This should be a standard of practice for any set of regulations they consider."
>
> "Providing rulings to taxpayers is an important service. The Tax Division does this today and, by law, they are advisory, not binding. While we would prefer binding rulings, we would not like to see agency give up this practice."
>
> "They do a fabulous job with charitable gaming. There are some complaints, but they have a solid set-up and I'd hate to see that change."

3. Key Findings

One of DOR/TAX's key assets is their personnel; they have a reputation for being responsive, professional, and competent.

However, stakeholders know that DOR/TAX is "under-resourced with technology." Systems' limitations and inflexibility impose a burden on taxpayer reporting and severely limit information available to legislators, executive agencies, and local governments.

Taxpayers were vocal in expressing their concerns and complaints about the need for duplicative reporting and the way in which information is collected. Current reporting processes are inefficient and ineffective and create unnecessary work and cost for taxpayers.

Both taxpayers who are required to report data to DOR/TAX and stakeholders who rely on information from the agency cited the value of DOR/TAX having a more modern and robust way to store and retrieve information. Inflexibility in the way data is gathered and stored limits the ability to report information in ways stakeholders find is essential. Desirable system characteristics included flexibility and the capability to access and present information differently.

Improvements in electronic filing were cited frequently as a means to improve tax administration. For some large taxpayers, the number one priority was identified as EDI (*electronic data interchange*). For smaller taxpayers, the need for simplified filing in general was stressed, of which electronic filing is an important part.

Taxpayers expressed a strong desire for the right level of taxpayer services, making it as simple as possible to report and pay taxes. The importance of timely, precise, and clear information for taxpayers was emphasized along with taxpayer education and convenient access to regulations.

Systems' limitations and inflexibility impose a burden on taxpayer reporting and severely limit information available to legislators, executive agencies, and local governments.

V. Integrated Tax Management System Project

A. Project Vision Statement

DOR/TAX project envisions an ITMS with the following attributes:

> **"Comprehensive**: incorporates all information and revenue management functions of the Tax Division;
>
> **Robust**: requires minimal changes to program code as new tax types are implemented and existing tax types are changed; and
>
> **Integrated**: includes information about all taxpayers that is accessible by all tax units and, through security controls, with other departments.
>
> The desired solution will help the Tax Division enhance revenue collections via standardized user interfaces and processes, increased data accuracy and integrity, user-friendly reporting tools, automated prompts for staff to take action, and a case management system to streamline investigations" (State of Alaska Department of Revenue Tax Division [ADOR/TAX], 2009, pp. 2-3).

A new system will allow DOR/TAX to "spend *less* time on:

- Manual processes that are often duplicative
- Maintaining spreadsheets
- Maintaining files
- Tracking taxpayers
- Tracking deadlines
- Reconciling data currently in various separate databases
- Researching whether taxpayers filed and paid in a timely manner
- Generating routine correspondence and communication with taxpayers from scratch
- Working to develop management systems lacking in the current environment
- Writing and executing specialized queries for extracting data" (ADOR/TAX, 2009, p. 3)

A new system will enable DOR/TAX to "spend *more* time on:

- Core, mission-critical functions
- Audits
- Investigations
- Research and analysis
- Appeals
- Pursuing non-filers
- Collecting monies owed to the state
- Developing and enhancing core skills in staff

- Applying better information to improve taxpayer service
- Improving revenue forecasting models
- Managing workloads efficiently
- Developing procedures and desk manuals for business continuity" (ADOR/TAX, 2009, p. 3)

B. Goals and Objectives

ADOR/TAX (2009) states "the goals and objectives for an ITMS project might include the following:

- Provide comprehensive tax revenue and information functionality to improve the efficiency and effectiveness of overall tax administration processes.
- Meet time and budget constraints.
- Eliminate the need for paper-based processes through automated entry and workflow of documents such as tax returns and information report filings.
- Eliminate redundant data collection and storage systems throughout DOR/TAX.
- Reengineer existing processes to maximize human and system resources.
- Fully document all business processes and eliminate redundant processes.
- Increase staff efficiency and direct focus to their primary duties.
- Facilitate the accurate calculation of taxes by eliminating problems associated with error-prone data entry and inconsistent application of business rules due to manual processes.
- Provide staff with access to self-service information based on their roles.
- Provide taxpayers with the ability of ecommerce with a modernized and fully functional web portal.
- Provide appropriate security to meet the requirements of all Federal and State laws regarding confidentiality and security of personal information.
- Regardless of the implementation strategy chosen, ensure that the State owns and maintains its revenue management system with as minimal support as possible from outside vendors.
- Ensure that the system is expandable to meet the needs of future tax types using State IT resources to the maximum extent possible" (p. 4)

For a complete discussion of scope, please refer to *Scope Management* in section *VII.*

C. Critical Risk Factors

ITMS projects are complicated, high-risk projects. It is important to identify critical risk factors so that a strategic approach, effective procurement process, and a well thought out implementation plan are in place to maximize the opportunities for success.

The greatest overall risk to DOR/TAX in its efforts to achieve its vision is to not proceed with the procurement and implementation of an ITMS.

Risks fall generally fall into three categories: (1) technology, (2) business, and (3) delivery risks.

1. Technology Risks

Technology risks are technical or performance limitations that endanger the project's success. Technology risks with a high level of importance and impact include:

- Recreating the "legacy trap" – committing to a solution not capable of meeting future needs; this risk speaks to concerns about obsolescence, flexibility, and expandability
- Opting for "cutting edge" but unproven technology
- Imposing technical requirements that needlessly limit the range of viable solutions that may be considered; for example, imposing Alaska-specific requirements that preclude consideration of solutions that have been successful elsewhere
- Inadequate assessment of solution capabilities, architecture compatibility, and system functionality
- Inadequate planning for future maintenance and support

2. Business Risks

Business risks are those impediments that prevent the organization from realizing the business benefits of the new technology. Business risks with a high level of importance and impact include:

- Inadequate resources are made available for the project
- A reluctance to change Alaska-specific business processes to take advantage of modern integrated tax solutions
- An insufficient emphasis is placed on training, thus staff is not able to effectively utilize the new technology

3. Delivery Risks

Delivery risks are those that affect project implementation. Delivery risks with a high level of importance and impact include:

- Using an unproven or out-dated implementation methodology
- Lack of top management commitment and involvement
- Ineffective or weak project management without clear oversight and decision-making authority
- Not dedicating the right people to the project including a sufficient number of business and technical resources
- A wavering focus on scope, deadlines, and budget
- Inadequate internal and external communications
- Insufficient staff involvement and buy-in; in Alaska, this risk has a geographic dimension due to the separation of staff in Anchorage and Juneau

An effective mitigation strategy needs to focus on three key elements: choosing a sound implementation approach (See *Alternative Approaches*); using an effective procurement process that results in the selection of a strong solution and trusted business partner (See *Preparing for Procurement*); and carefully planning and managing the project to ensure successful delivery (See *Project Management Plan*).

It is important to identify critical risk factors so that a strategic approach, effective procurement process, and a well thought out implementation plan are in place to maximize the opportunities for success.

D. Alternative Approaches

The modernization of an agency's tax administration is a complex and risky undertaking. The strategy an agency chooses as it goes through the modernization process has a significant impact on its chances of success and the cost and schedule of the project, as well as an array of ancillary issues such as system functionality and performance, user training, maintenance, and future system enhancement.

Options available to states desiring to implement a modern, ITMS include custom, transfer, and commercial off-the-shelf (COTS) systems. These approaches are defined as follows:

- *Custom Built System:* Building an application system specifically for a single customer. Normally, a custom system is designed and built from the ground up for a specific agency by in-house resources, vendor resources, or some combination of the two.
- *Transfer System:* Obtaining a system used in another jurisdiction and fitting it to meet another customer's needs. A transfer system in this context is software in use at one revenue agency that is transferred, installed, and adapted to meet the needs of another revenue agency.
- *COTS System:* Obtaining a ready-made package designed to be configured to meet the needs of many customers. COTS in this context is a software product developed by a third-party who controls its ongoing support and evolution. It is bought, licensed, or acquired for the purposes of integration into a revenue agency. A COTS product might not allow modification at the source code level, but normally includes customization mechanisms to allow for easy extension and tailoring to meet each agency's requirements.

1. Industry Trends in the State Revenue Market

There has been considerable evolution in the state revenue market for tax systems in the past three decades. In the 1970s and 1980s, custom systems were the only option. Systems were built in-house or by vendors, and they often addressed a specific functional area such as registration, returns processing, collections, or audit. Many of the legacy systems states are seeking to replace today are siloed, custom systems with limited functionality built on aging platforms.

The concept of an ITMS built on a single platform capable of supporting multiple tax programs and functions had significant technical and business advantages and revenue agencies started moving in that direction. Systems were self-built or built by IT service providers such as IBM, Andersen Consulting, and Unisys.

In the late 1980s, the "transfer system" concept became an option for state tax agencies. Transfer systems offered advantages of reduced cost and risk because the core system already existed and was in production operation elsewhere. The existing code of a transfer system provided a head start on development. The additional development activities focused on changing existing code and adding new code to meet different business and functional needs of another jurisdiction. Once a transfer system was completed, it retained many characteristics of a custom system – a system built to meet the requirements and needs of a specific jurisdiction. Like a custom system, the jurisdiction owned the code and was responsible for modifying and changing it, possibly with vendor assistance, as changes in legislation or business requirements dictated.

Transfer systems were a popular option from the mid-80s through to the early 2000s. At least two vendors marketed and implemented transfer solutions – CGI/AMS (Advantage Revenue) and Accenture, (TAS).

COTS became an option for state revenue agencies after the turn of the 21st century. A Gartner Industry Research report, *COTS Is Becoming a Viable Option for Tax and Revenue Agencies' Application Modernization*, (Gartner, 2008) notes,

> "Historically, tax and revenue agencies preferred to custom-build mainframe-based systems, because the early stages of the maturity of applications and application development approaches made it difficult to cost-effectively build commercial off-the-shelf products with sufficient architectural flexibility to adjust to the variety of regulatory and business needs" (p. 2).

COTS solutions offer advantages such as lower risk, reduced cost, and quicker deployment of proven "out-of-the-box" functionality. Rather than building from the ground up or rewriting or replacing another agency's code, development focuses on tailoring extensions through configuration to meet a jurisdiction's unique business requirements. With many business rules (such as tax rates, penalty and interest rules) being configurable, changes can be made quickly without the need to rewrite code. Similarly, new tax types can be configured in the solution just as existing taxes are configured during the implementation project.

The ownership model of a COTS solution differs from custom and transfer alternatives since the product code is proprietary – the jurisdiction has a license to use it but does not own it. The responsibility for keeping up with changes in technology and core functionality is delegated or outsourced to the COTS vendor. This can be seen as an advantage since adapting to evolving technology is a significant

undertaking and the ability to regularly refresh technology is appealing. However, some agencies view lack of source code ownership as translating to lack of control.

A COTS solution also offers agencies an upgrade path as new software versions and technology become available. Although upgrading to new versions still requires some work, it is less resource-intensive than a technology model that required the periodic replacement of legacy systems.

The different ownership models for custom and transfer solutions in comparison to COTS mean different life-cycle cost structures. A COTS system typically has lower implementation costs than custom or transfer solutions, and jurisdictions need to plan for on-going software maintenance costs to keep current with service packs and new versions of the software. Upgrading to a new software version may or may not require the assistance of the vendor depending on the capabilities of the in-house IT unit and the significance of the changes from version to version. Implementation costs for a custom or transfer system are typically higher than a COTS solution, and jurisdictions need to plan for periodically rewriting, re-platforming, or replacing the legacy system.

Since 2000, COTS solutions have become the predominant option for an ITMS in state revenue agencies within the United States. In thirteen contract awards between 2000 and 2005, nine were for COTS solutions, three were for transfer solutions, and only one was a custom build. In fourteen awards between 2006 and 2010, twelve were for COTS solutions and two followed a custom approach. One of the two was a project to rewrite legacy system COBOL code to Java (Maine). The other was a custom-build project which produced the prototype for a COTS product offering (South Carolina). There have been no transfer system implementations in the past five years.

Since 2000, COTS solutions have become the predominant option for an ITMS in state revenue agencies within the United States.

Table 1 lists the approaches states have taken in implementing an ITMS during the past ten years.

The dramatic shift towards COTS solutions in the state revenue market may be based on experiences some agencies have had with other approaches.

- In the early 1990s, the New Mexico Tax and Revenue Department initiated a project to modernize its computer systems by designing and building its own custom system that would integrate its tax types into a single business application. Nine years and $49 million later, only one tax program was in production and a second under development. In early 2001, New Mexico decided to halt further development and acquire an off-the-shelf package through a competitive procurement process.
- Mississippi started a custom project in the late 1990's, but the tax system never was completed. Attempts to go live with the first of the 38 taxes in 1997 and 1998 failed and a third version of the

tax system provided in January 1999 had so many defects that testing could not be completed. Mississippi currently has a procurement process in progress and is seeking a COTS solution.

- Montana abandoned a custom system project after spending $39 million. In 2003, the Montana Legislature directed the agency to shut down the project due to data integrity and stabilization issues, and an overall lack of confidence in the system. The department was instructed to find a replacement system with a proven track record in another state. The resulting RFP specified a COTS solution.

Table 1: State Approaches to ITMS (2000-2010)

Custom	Transfer	COTS
Maine	Arizona	Alabama
New York	Connecticut	Arkansas
South Carolina	Nevada	Colorado
		Florida
		Georgia
		Idaho
		Illinois
		Kentucky
		Louisiana
		Maryland
		Michigan
		Minnesota
		Montana
		New Mexico
		North Carolina
		North Dakota
		Ohio
		Utah
		Vermont
		West Virginia
		Wisconsin

There are currently state revenue agency procurement processes in progress in Massachusetts, Pennsylvania, Mississippi, Oklahoma, and California (Franchise Tax Board). The Pennsylvania, Mississippi, and Oklahoma RFPs specifically request responses for COTS solutions. The Massachusetts and California RFPs do not specify or restrict the type of solution so long as responses meet the state's requirements.

Today, there are at least five companies with COTS solution offerings for the US market:

- SAP (Tax and Revenue Management)
- Revenue Solutions, Inc. (RSI Premier)
- Fast Enterprises (GenTax)
- Oracle (Enterprise Taxation Management or ETM)
- Tata Consultancy Services (Tax Mantra)

To our knowledge, there are no vendors actively marketing transfer system solutions for integrated tax in the US market today. In the past there were two vendors who marketed and implemented transfer solutions – CGI/AMS (Advantage Revenue) and Accenture (TAS). Neither of these companies have marketed or bid these solutions in the past five years. CGI is currently implementing Oracle's ETM product in several states and Accenture is implementing the SAP revenue solution in one state and has bid the SAP solution in several other states.

Custom systems remain an option for state revenue agencies. A custom solution can provide a high degree of flexibility which may be important for an agency that is very satisfied with its existing business processes and does not want to adapt them to a COTS solution. Custom systems, however, pose a higher degree of implementation risk and, historically, have been a more costly option.

There are undoubtedly a large number of IT service companies, some with revenue agency experience and many without, which may be interested in the opportunity to develop a custom tax solution. Companies active in the revenue market include Accenture, Capgemini, CGI, Deloitte, IBM, PricewaterhouseCoopers, and Unisys but their level of interest in building a custom solution and, more specifically, their interest in the Alaska market, are not known. Also, there is little information available about recent state revenue agency experiences with custom ITMS solutions, particularly for states considered comparable to Alaska. If there is an interest in pursuing a custom solution and learning more about the vendor community as well as custom system pricing, DOR/TAX should consider issuing a Request for Information (RFI) specifically inviting responses from vendors interested in proposing a custom solution.

2. DOR/TAX Experience

DOR/TAX has previous experiences with custom and transfer solutions, both which did not produce the desired results.

a) Custom Systems

Three of the agency's existing systems, TAS, CPS, and DEE Excise, are custom built systems. DOR/TAX indicates that they provide insufficient functionality, and are complicated, expensive, and time consuming to modify and maintain. Not all data needed to track and report on tax types is collected causing information provided to be incomplete. In planning for an ITMS, DOR/TAX intends to replace all three systems.

b) Transfer Systems

One system DOR/TAX uses for two tax types was a transfer system called Data Entry and Examination Motor Fuel/Corp. The current version neither meets the needs of the Tax Division nor can it be enhanced.

In evaluating the transfer approach, the *TRIMS* (ADOR/TAX, 2009) report noted:

> "This option was attempted back in 2000 with the purchase of the state of Wyoming's Mineral Tax System, a third-party product from Computing Alternative, Inc. This project, involving the adaptation of the product for Alaska's Corporate Income Tax and Motor Fuel Tax types, was unsuccessful due to cost overruns, system instability, data integrity issues, and the inability to generate meaningful reports. All of these problems have contributed to an existing system that requires significant business process work arounds and that operates at a 'snail's pace.' In some instances, it is actually faster to manually process a return than utilize the system. In addition, this system 'crashed' a few years ago making it impossible to supply required reports to the Federal Highway Administration (FHWA) regarding motor fuel used on Alaska's highways. Our failure to report almost resulted in FHWA withholding federal highway funds from Alaska's Department of Transportation" (pp. 14-15).

3. DOR/TAX Research

In 2007 and 2008, a series of three reports were prepared for DOR/TAX by the Alaska Information Technology Group (AITG). The studies identified requirements for an Oil and Gas Tax revenue system, conducted a high-level assessment of two approaches to developing a new system (custom and COTS), and reviewed two COTS solutions.

In the *Oil and Gas Tax System: Solutions Analysis,* AITG (2007) identified business, functional, and system requirements and, based on the preliminary requirements gathering phase of the project concluded,

> "the DOR needs to develop or acquire a comprehensive flexible, computerized system to track, calculate, and report tax data, starting with the data associated with the oil and gas production tax" (p. 2).

In the second study, *Oil and Gas Tax System Solutions Analysis*, AITG (2007) further investigated two potential solutions, a custom and a COTS solution. They concluded both the custom and the COTS solution can meet the requirements, and

> "…careful evaluation of all available options should be considered before moving forward with a solution" (AITG, 2007, p. 23).

The third AITG study, *Oil and Gas Tax System: COTS Solutions Analysis* (AITG, 2008), further analyzed two COTS solutions. As a part of the study, five states were surveyed that had implemented custom and COTS solutions for Oil and Gas Taxes. The three custom solutions all took longer to complete than had been scheduled (timeframes were underestimated by 33% to 50%) while the two COTS projects were completed on time. On a scale of 1 to 10 with 10 representing high satisfaction, the custom systems received ratings from New Mexico, North Dakota, and Wyoming of 7, 8, and 5 respectively. The COTS systems received rating from Louisiana and Montana of 10. Louisiana and Montana indicated they would "select the same system if they were to implement a new system today" (AITG, 2008, p. 10). Two of the three states who chose custom solutions (New Mexico and Wyoming) were not satisfied with the outcome. New Mexico said they "would not build the same system today" (AITG, 2008, p.10). Wyoming indicated the system was not properly developed, and work-around solutions became standard business practices. The system was described as "just works" (AITG, 2008, p. 10). The study recommended that Alaska budget $20 million for the cost of implementing a COTS solution for Oil and Gas Taxes (AITG, 2008, p. 10).

ADOR/TAX (2009) produced *TRIMS* which evaluates five alternative strategies:

- "Maintain and upgrade the existing system and method of operation
- Transfer an existing system from another state
- Transfer and modify an existing system from another state
- Custom build a new system
- Acquire and implement a COTS product" (p. 10)

DOR/TAX evaluated each option in terms of cost, ability to satisfy requirements, business process impact, time, and risk.

The *TRIMS* (ADOR/TAX, 2009) report concluded acquiring and implementing a COTS product is the best recommendation for the TRIMS project. COTS systems are developed by businesses that specialize in state and local tax revenue systems. In terms of time, the COTS solution is capable of a faster

implementation because the initial phases of production are not spent building core framework. Risk is minimized when using a COTS solution and is primarily contingent upon selecting a vendor who is successful in managing solutions and who can provide technology updates. ADOR/TAX (2009, p. 21) states,

> "COTS solutions typically have been tested in the user community at large and are considered a proven solution. At its core, the software will provide a stable and proven framework, which requires some configuration to meet the business requirements."
>
> "A custom solution, on the other hand, has not yet been proven and the framework must be developed from scratch. Typical risks include poor performance or unworkable code, where some features do not work as intended. These risks are compounded by the number and complexity of the business requirements, the programming languages and platforms utilized, and the systems that need to be integrated."
>
> "Agencies are sometimes wary of the COTS approach because they fear that future changes to the product will not be under their control, or that a vendor may eventually abandon support for the product or go out of business altogether. This risk can be significantly mitigated by selecting a vendor with a proven, long-term track record in designing, delivering, and supporting a revenue management solution, not as a sideline but as the primary strategic focus of their product offering; and who has demonstrated a commitment to maintain currency with evolving industry-standard technology platforms."
>
> "All states participating in the Tax Division's 2008 survey indicated satisfaction with the performance and scalability of their COTS tax management system implementations."

Furthermore, ADOR/TAX (2009, p. 19) concluded,

> "Considering all evaluation criteria together – cost, satisfaction of requirements, business process impact, time, and risk – the COTS implementation strategy represents the highest probability for a successful TRIMS project outcome."
>
> "After careful internal research and analysis, the Tax Division recommends that it is in the best interest of the State for the Division to acquire a commercial off-the-shelf (COTS) system that can be configured to meet the needs of the Division, the State, and the taxpayers and stakeholders we serve."

4. Next Steps

- If DOR/TAX is interested in a custom solution, it should consider issuing a Request for Information (RFI) specifically inviting responses from vendors interested in proposing a custom solution for DOR/TAX. The RFI should request a company profile, information about the technology to be used, a system description, pricing and schedule information, the company's experience implementing similar systems in jurisdictions comparable to Alaska, and any other information DOR/TAX believes would be useful in evaluating the costs and benefits of further pursuing a custom solution
- If DOR/TAX is interested in a COTS solution, they should issue an RFP specifying that responses must propose a COTS solution. In recent years, this approach was used in Arkansas, Mississippi, and Oklahoma.
- If DOR/TAX is interested in either a COTS or transfer solution, it should issue an RFP specifying that responses must propose a COTS or transfer solution. In recent years, this approach was used in Utah.

VI. Costs and Benefits

This section provides high-level information about the cost components of an ITMS and presents a range of costs for DOR/TAX as it estimates and budgets an appropriate level of resources for a new system. FAST reviewed and analyzed information DOR/TAX previously gathered from other state tax agencies about costs and benefits of an ITMS and supplemented it with additional survey information. Potential benefits and various funding approaches are presented in this section.

For an ITMS project, one of the critical risk factors is inadequate funding. If project costs are underestimated, the desired scope of the project may not be delivered, or the project may go over budget. It is important to set a realistic level of funding, recognizing that major components of the project will be subject to bid with multiple vendors providing pricing proposals for goods and services.

A. Cost Components

Cost components for a tax system project generally fall into five categories:

- Software
- Implementation services
- On-going maintenance and support
- Hardware
- Project operating expenses

Vendor-related cost components include software and implementation services. For budgeting purposes, these two cost components may be bundled together. Once the project is complete, there will also be on-going software maintenance and support costs.

In addition, a project incurs hardware costs and internal project operating costs such as those related to project space, equipment, and travel. If agency staff members (business and technical) are "loaned" to the project, they do not usually represent additional, marginal costs for which a budget is requested. However, this is an aspect of a project that needs to be carefully managed since a significant number of agency staff will be committed to the project – many on a full-time basis. If additional project-related staff are requested, those costs should be included in the project's operating budget request.

1. Software

The major element of software costs is the integrated tax software itself. There will also be third-party software licensing expenses for operating systems and database support.

Vendors use different pricing models for software licensing. Variations include enterprise licenses with no functional or program-based restrictions, and restricted licenses that limit permitted uses to only tax types or functionality that is specifically in-scope. Some vendors price licensing based on the number of users or "seats" while others are not limited with respect to the number of users, desktops, servers, or

office locations. As vendors respond to the RFP, it is important to understand the basis for their software license pricing, and to have them specify license restrictions and limitations.

2. Implementation Services

Vendor services are usually the single largest cost component for an ITMS implementation project. DOR/TAX is planning a project to replace all 22 taxes, implement more aggressive e-filing, implement a complete Data Warehouse, and integrate imaging. Required services will include services for system configuration, development, testing, conversion, and training. Consulting services to meet a variety of other needs may be requested or proposed including those related to business process redesign and project management. Project management includes the vendor's project manager and, at the discretion of the agency, may also include an independent project manager who works on behalf of the agency.

3. On-going Maintenance and Support

Software maintenance costs provide for modification of the software after delivery to cover bug fixes, improve performance, or add functionality. Sometimes software maintenance takes the form of a "warranty period" beyond the implementation project. Software maintenance may or may not include access to future version enhancements. In the initial project budget, it may be desirable to provide for some level of maintenance beyond the implementation project. For example, if the project is expected to be implemented over a three-year timeframe, including all costs for a five-year period may be prudent so that on-going software maintenance are visible and can be factored in to reflect both project-related and post-project costs. On-going support services may include vendor resources necessary to supplement agency resources after the implementation project is complete.

4. Hardware

Major hardware costs include servers running the ITMS application, related databases, storage area network (SAN) capacity, developer workstations, and client workstations. This hardware supports the production, development, and testing environments. Hardware needs are usually site-specific since they depend on whether an agency's existing hardware meets the new solution's specifications. In addition, there may be network, cabling needs, etc. that would be unique to each site.

5. Project Operating Expenses

Project operating expenses consist of general overhead expenses necessary to support a project including project space, equipment, travel, and other internal costs necessary to support activities, such as training and testing. These expenses are typically site-specific and reflect the marginal costs over and above an agency's normal operating expenses. They will vary depending, for example, on whether there is existing agency space to accommodate a project office. For DOR/TAX, travel costs should include project related travel that will be necessary between Juneau and Anchorage.

B. Pricing Strategy for DOR/TAX

In setting a budget for a major IT project, a jurisdiction wants to be sure it is able to obtain the functionality, performance, and delivery it seeks at a fair price. For an ITMS project, one of the critical risk factors is inadequate funding. Setting a budget too low may result in getting a system that does not meet the agency's needs. A jurisdiction also runs the risk of limiting the number of vendors that respond to an RFP and receiving attractively priced responses that carry high business and delivery risks.

Two primary ways used by jurisdictions to get information helpful in setting a budget:

- Information from the vendor community
- Information from other states in the process of implementing or have implemented an ITMS

DOR/TAX has used both of these means. For the past three or more years, the agency has participated in events such as the Federation of Tax Administrators Technology Conference and Exhibition, met and consulted with vendors to understand their product offerings and pricing, seen demonstrations of multiple solutions, and has had an independent consulting firm analyze different software solutions. They have received confidential cost estimates from three COTS vendors. DOR/TAX has also formally and informally surveyed other states to get information about project costs and schedule, as well as user satisfaction.

A budget for an ITMS for a five year period is estimated to be **$30 to $35 million**, and DOR/TAX is requesting a budget of **$35 million**.[2] This budget should be sufficient to attract a number of vendors offering a range of solutions to respond to an RFP. The strategy is prudent in that it allows the forces of competition to work in Alaska's favor by encouraging competition and by inviting competitive RFP responses to ensure the state is able to select the best system at a fair price.

C. Integrated Tax Management System Budget

Budget information for an ITMS project is presented by cost component for a five-year period. In developing these estimates, it is assumed that an RFP would solicit responses from vendors for software, services, and maintenance and support for a five year period. Since the implementation project itself may take less than five years, the vendor would be required to include maintenance and support in its pricing from the end of the implementation project through the fifth year. For example, if a vendor proposed a 2½ year implementation project, they would include 2½ years of maintenance and support in their response. If a vendor proposed a four year implementation project, they would include one year of maintenance and support in their response.

This provides flexibility to the vendor to propose costs and a schedule that they believe to be realistic and feasible, while providing to DOR/TAX assurances the project will be completed within five years and that all maintenance and support costs are included for a five year period.

[2] Due to proprietary vendor information, FAST estimated the budget based on information from other states.

Faster implementations will include longer periods of maintenance and support while longer implementation projects will include a shorter period of maintenance and support. DOR/TAX may wish to specify the maximum amount of time it will consider for the duration of the implementation project itself, e.g. four years.

Also, it is important to realize this approach will invite differences in how different vendors allocate pricing between implementation services and maintenance and support.

1. Vendor Software and Services

A budget for vendor software and services in the range of **$23 to $27 million** is within industry norm. This amount takes into consideration the number of tax types to be implemented (22), the functionality in scope including a data warehouse, taxpayer on-line services, imaging integration, and the services of an independent project manager. In substantiating this estimate, primary reliance is placed on recent cost information (2007 – 2009) obtained from other states that have procured and are in the process of implementing an ITMS. Secondary reliance is placed on cost information from small states (population less than 3 million) that implemented an ITMS in prior years (2003 – 2006).

It is important to note this estimate does not take into consideration confidential price information DOR/TAX has obtained from multiple COTS vendors. DOR/TAX should validate the estimate by comparing it to the information they have obtained.

This estimate may not be reflective of costs for a custom solution. If DOR/TAX would like more information about vendors and potential costs of a custom solution, they should consider issuing a Request for Information (RFI) specifically asking for information from the vendor community about offerings and pricing.

2. Maintenance and Support

A budget of **$2.0 to $2.5 million** per year for on-going maintenance and support after the project is completed is within the industry norm. For purposes of total project estimates shown, it is assumed the implementation project will be completed within three years, so two years of maintenance and support costs are included. Note that a faster implementation may require a higher amount for maintenance and support (more years), while a longer implementation may require a lesser amount (fewer years).

3. Hardware

DOR/TAX has estimated hardware related costs to be **$1.375 million** including costs for acquisition, installation, and testing.

FAST independently reviewed DOR/TAX's hardware estimates and based on experience in other jurisdictions determined this estimate to be reasonable. During the RFP process, DOR/TAX should request vendors to specify hardware requirements specific to the proposed solution so that hardware costs can be more precisely determined for each solution.

4. Project Operating Expenses

DOR/TAX has estimated internal operating costs to be **$1.0 million**, including funds for project office space, travel, and training. In addition, **$325,000** is associated with system integrated testing.

5. Total Project Budget

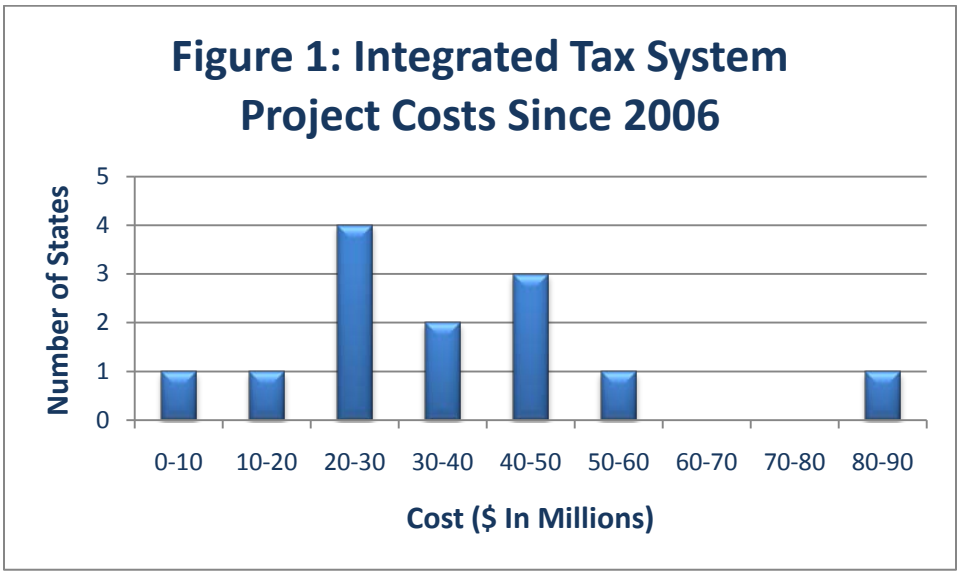
Table 2: Estimated Project Costs

Component	Amount – Low (millions)	Amount – High (millions)
Vendor Software and Services	$23.0	$27.0
Hardware	$1.375	$1.375
Project Operating Expenses	$1.325	$1.325
Maintenance and Support (2 years)	$4.0	$5.0
Total	$29.7	$34.7

D. Comparison Information from Other States

Since the year 2000, most state tax and revenue agencies (27 out of 50) have implemented or are in the process of implementing an ITMS. This provides a breadth of experience for DOR/TAX to draw from. The 27 states differ considerably in their population, total state revenues collected, tax structure, taxpayer base, and the complexity of individual tax types. There is also considerable variation in the scope of the tax system projects the states have undertaken.

Within the past five years, there have been 14 ITMS contract awards. Information obtained for 13 of the projects indicates system costs have ranged from **$8 million** to **$87 million**, with the six projects initiated since 2008 averaging **$43 million**. Figure 1 displays the range of costs for these 13 projects.



While this provides a "ballpark" indicator of total costs, individual state procurements are not perfectly comparable – the goods and services states choose to purchase often vary. Procurements typically involve software license and implementation services, while some may also include hardware, data warehouse and associated analytics, imaging, extended maintenance agreements, and/or extensive consulting services to address a variety of needs. Moreover, the scope of the implementations may range from a small number of taxes (1 to 4) to all of the tax types administered by the revenue agency (possibly 50 or more). For example, the two projects with costs under $20 million shown in the graph above involved the implementation of one tax with limited functionality (Michigan) and four taxes (Vermont). Given differences in project scope and the different vendors that may be involved, the duration of these projects also varies.

While the number of taxpayers in a jurisdiction has some bearing on costs, the complexity of the taxes, desired functionality, and the number of tax programs are much more significant factors. A high volume of taxpayers can affect software and hardware scalability and performance, but the functionality needed to process and administer a tax is not materially affected by a large or small number of taxpayers.

Generally, more recent procurements provide stronger indicators of current costs since they better reflect the current market. However, completed projects may provide better evidence of the benefits derived from an ITMS project since those jurisdictions have had the opportunity to establish a track record benchmarked against the performance of their legacy systems.

1. Comparison States – Small Populations

For purposes of providing additional comparative information related to small states, procurements in states with populations of less than three million during the last five years are examined in closer detail. This includes three states: Utah, Vermont, and Arkansas. To broaden the pool, procurements initiated since 2005 in states with a population of less than three million were also included, bringing in North Dakota and West Virginia. In addition, Montana is included in the comparison since Alaska often compares itself with Montana, both because of similar populations (less than one million) and because Montana, like Alaska, has a high dependence on severance taxes. Montana's project initiated in 2003, eight years before the potential start of an Alaska ITMS project.

Note: Information provided from other states is for the initial implementation project only. In some cases, additional tax types or functionality has been subsequently added. These additions are not included in the comparison since subsequent, incremental costs are harder to identify and track making comparisons are less reliable. Table 3 displays comparative summary information.

Table 3: Comparative Summary Information

Inception Date	State	2010 Population (000)	2008 Total State Tax Revenue* (Millions)	In-Scope Tax Types	Project Duration	Project Status
2003	Montana	975	$2,457.0	53	48 mo.	Completed
2005	North Dakota	645	$2,312.1	19	24 mo.	Completed
2005	West Virginia	1,819	$4,881.9	42	42 mo.	Completed
2006	Utah	2,786	$6,109.3	26	37 mo.	Completed
2007	Vermont	622	$2,544.2	4	32 mo.	Completed
2008	Arkansas	2,889	$7,530.5	46	48 mo.	In-Progress
2011	Alaska	698	$8,424.7	22	--	Proposed

*Source: 2008 Annual Survey of State Government Finances, U.S. Bureau of Census

Mississippi (population 2.952 million) is currently engaged in an ITMS procurement process. DOR/TAX should monitor the progress and results of this procurement since it is the first one involving a state with a population of less than 3 million since 2008. While a contract is yet to be awarded, it is worth noting that Mississippi received five vendor responses to their RFP.

Below is a short description of each of the six state projects.

a) Montana

In the late 1990's the Montana Department of Revenue chose a "design and build" (custom) strategy to modernize its many non-integrated and inflexible legacy systems. In 2003, after spending $39 million, the Montana Legislature directed the agency to shut down the project due to data integrity and stabilization issues, and an overall lack of confidence in the system. The department was instructed to find a replacement system with a proven record of accomplishment in another state.

Montana acquired a COTS solution and utilized a "proof of concept" approach, initially implementing six taxes over an 11-month period. Following the successful and on-time rollout of the first phase, subsequent phases brought 53 different tax types into production over the project's lifespan of 48 months.

b) North Dakota

The North Dakota project was a two-year, multi-phased project to convert most of the tax department's many aging computerized tax processing systems to a modern ITMS capable of quickly adapting to the state's frequently changing tax laws and regulations. The project replaced legacy tax systems designed 40+ years ago. Because legacy systems were limited by their age and effectiveness, the agency resorted to using supplemental tools such as MS Access and MS Excel to process and maintain significant elements of tax administration data.

North Dakota considered three alternatives for its modernization project:

- Migrating the existing systems to a modern hardware platform
- Designing and building a new system from scratch (custom development)
- Implementing a COTS solution

North Dakota elected a COTS approach in order to reduce risk, reduce cost, shorten the implementation schedule, take advantage of upgrades made to the core product, and enable the state to adapt quickly to future tax changes and business challenges. The project started in July 2005 and was completed in June 2007, bringing 19 taxes types into production during the four phases of the project.

c) West Virginia

As recently as 2006, the West Virginia State Tax Department used 23 out-dated operating systems to administer 42 different taxes. Separate systems created a segmented work environment for the department and led to inaccurate data and erroneous billings. They also inhibited good taxpayer service – tax service employees had to go into as many as nine different systems to answer a taxpayer's question. IT staff struggled with inflexible software tools and the department was able to make only limited changes to reflect new laws enacted by the legislature.

West Virginia started its ITMS project in 2005, implementing a COTS solution with the goals of enhancing tax collections, bringing the state tax administration into the 21st century, and providing taxpayers with the best possible service. Forty-two taxes rolled out over a 42-month project consisting of five phases. The state has been able to retire 20 of its legacy systems.

d) Utah

The Utah State Tax Commission administers over 40 major taxes and fees. Several of its largest taxes were administered using systems developed more than 20 years ago that were structured in silos containing one or more related tax types. The systems had grown increasingly complex, inflexible, and difficult to maintain. Facing the possible need to implement legislatively directed changes to the tax code, the Tax Commission feared it would be difficult, if not impossible, to implement changes using existing systems and technologies.

The Tax Commission's goal was to replace its core tax systems, and its RFP invited proposals for either COTS or transfer solutions. They selected a COTS solution and started the implementation project in April 2006. Imaging integration and several additional tax types were later added to the scope of the project including International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP). As of September 2010, a total of 29 tax types have been implemented into production.

e) Vermont

Vermont undertook its ITMS project in 2007 based on the need to replace aging mainframe software applications with more modern and functionally rich software. Retirements of key mainframe developers reduced the department's ability to continue to maintain its older mainframe-based tax

systems which had evolved over a 30 year period. The agency also relied on PowerBuilder applications, built in the late 1990s, modified with customizations to provide functionality in support of business needs and statutory changes.

Vermont's strategy was to undertake a limited project (4 taxes), and expand it sometime in the future for full enterprise-wide use. This approach would allow the agency to consolidate processing on the new application by migrating remaining processing from legacy systems. Vermont selected COTS technology to leverage vendor support, better utilize internal IT capabilities, avoid technological obsolescence via upgrades, and reduce overall risk.

f) Arkansas

The Arkansas Division of Revenue's legacy tax systems consisted of four major tax systems plus a tax collection system designed and implemented between 1985 and 1993. Designed to support the reporting and collection of taxes, the systems did not have sufficient features to manage current tax laws. Reports requested from the legislature and executive branch agencies were very time consuming and difficult to produce. Given the age and architecture of the systems, they were difficult to manage and maintain, inflexible, and incapable of providing adequate support for tax section needs.

Arkansas issued an RFP seeking a COTS solution to replace their legacy systems. They started their 4-year project to implement 46 taxes in 2008. They have completed two of five scheduled phases and currently have 21 tax types in production. The project is scheduled to be completed by the first quarter of 2012.

2. Comparison of Scope and Component Costs

Table 3 compares the initial scope of ITMS projects in the six comparison states with the proposed scope for Alaska. In some cases, additional tax types and functionality were added into scope after the project was initiated.

Table 4: Comparison of Initial Scope

State	Data Warehouse	Taxpayer On-Line Services	Imaging	Other
Montana	Yes	No	No	--
North Dakota	Yes	No	No	Remote Support for Field Audits
West Virginia	Yes	Yes	Yes*	--
Utah	Yes	Yes	No	--
Vermont	No	No	No	
Arkansas	Yes	Yes	No	Remote Support for Field Audits and Collections
Alaska	Yes	Yes	Yes	--

*Integration with a preexisting imaging solution; excludes imaging system hardware and software

3. Vendor Software and Services

For purposes of this comparison, vendor software (including third-party software) and services are combined since a breakout between these two items was not obtained.

Table 4 compares vendor software and service costs for the ITMS projects in the six comparison states. They range from **$7.8 million** to **$27.0 million**. The number of tax/account types in scope range from 4 to 53, and the durations of the project ranged from 24 to 48 months. The functional scope also varies; five of the six include data warehouse functionality, three out of six include taxpayer on-line services, and only one out of the six includes imaging integration. Reasons for including or excluding certain functionality in a project's scope vary. For example, some agencies already have on-line taxpayer services functionality that they do not wish to replace. In other instances, cost constraints cause an agency to limit its scope.

While vendor software and services costs gathered from the six small states provide some helpful information, its use is limited by several factors. First, the data is somewhat old. The information from Arkansas is more than three years old relative to the potential start date of an Alaska project, and the information from Montana is eight years old. Second, the costs only relate to two COTS vendors. Today, there are at least four companies with COTS solution offerings for the US market, including SAP, RSI, FAST, and Oracle. A fifth vendor, Tata, has also responded to state RFPs in recent years with a proposed solution.

Table 5: Cost Comparison—Vendor Software and Services

State	Vendor Software and Services (millions)	Hardware (millions)	Inception Date	Tax / Account Types
Montana	$24.8	n/a	2003	53
North Dakota	$10.0	n/a	2005	19
West Virginia	$20.8	$1.5	2005	42
Utah	$22.5	n/a	2006	26
Vermont	$7.8	n/a	2007	4
Arkansas	$27.0	n/a	2008	46

a) Maintenance and Support

Average maintenance and support costs obtained for the six comparison states ranged from **$1.15 to $2.55 million** per year.

b) Hardware

Among the six comparison states, only West Virginia's project costs were inclusive of hardware for a total of **$1.5 million**. Many states are able to order hardware from pre-existing state contracts or may use separate procurements for hardware acquisition.

c) Project Operating Expenses

Project operating costs were not obtained from the comparison states since they tend to be based on factors and needs that are unique to each state.

E. Integrated Tax Management System Project Benefits

The benefits revenue agencies seek from a modern, ITMS generally fall into five categories:

- Increased compliance and the ability to collect revenues that are currently uncollected
- Operating efficiencies
- Enhanced taxpayer services
- More reliable data and improved reporting capabilities, both for external stakeholders and for internal management purposes
- Streamlining system maintenance through a unified technology platform

Below is a list of benefits DOR/TAX could expect to realize through an ITMS.

1. Increased Compliance

An ITMS is able to improve tax compliance by providing automated tools that enhance collection management, systematically identify and act on taxpayers who fail to file, improve audit selection, identify potential underreporting, and help discover taxpayers that not registered and paying taxes.

Currently, DOR/TAX does not have collection management tools that easily and quickly support the billing of underpayments and escalated actions to ensure payment. There is not a consolidated view of a taxpayer's accounts, so it is extremely cumbersome to determine if a taxpayer is current on all tax obligations, or may be due a refund for one tax yet have an outstanding balance for another. An ITMS would provide current and reliable accounts receivable information across all tax types, and enable DOR/TAX to support progressive actions to collect delinquent taxes, interest, and penalties.

Similarly, DOR/TAX does not currently have a means to identify systematically if a taxpayer has failed to file a tax return. Current, manual processes to detect non-filing are haphazard at best, and do not ensure timely identification and action. An ITMS would introduce the capability of determining if a taxpayer has failed to file an expected tax return and support rapid and automatic or employee-based actions to follow-up appropriately.

DOR/TAX auditors currently spend a high proportion of their time compiling, organizing, and reconciling data in preparation for an audit or examination. The manner in which the data is stored in numerous systems prevents easy retrieval of information. DOR/TAX must gather data from a variety of different

systems, databases, and spreadsheets, paper documents, and images of paper documents. Because it takes so long to prepare for an audit, fewer audits are completed and the audits that are performed take longer to complete.

Oftentimes, data cannot be retrieved and an agency employee will need to ask the taxpayer to provide it. This is time consuming and imposes a burden on the taxpayer. Current tools to analyze patterns of underreporting are limited to non-existent, and do not enable the agency to prioritize its audit resources effectively or focus its audit and examination activities on those areas of highest need. An ITMS would enable the agency to improve audit productivity and to target its audit coverage to maximize tax compliance.

DOR/TAX lacks tools to identify and pursue taxpayers that should be registered and paying taxes but are not. Modern data warehouse and discovery tools allow a tax agency to use internal and third-party data to discover potential non-filers and to follow-up appropriately through automatic or employee-based actions to ensure proper compliance and reporting.

2. Operating Efficiencies

DOR/TAX's current operating environment is characterized by a high degree of manual processes. Approximately 95% of the agency's business processes are manual, and many exist strictly to get information from one system or database into another or to reconcile information from multiple sources. DOR/TAX also uses manual processes for fundamental business purposes, for example, they distribute shared taxes of over **$44 million** to 124 communities throughout Alaska in 2009. Multiple systems and data sources create the need for multiple and diverse processes, contributing to organizational silos and the need for specialized knowledge to carry out various agency activities.

An ITMS would provide current and reliable accounts receivable information across all tax types, and enable DOR/TAX to support progressive actions to collect delinquent taxes, interest, and penalties.

A single, ITMS will present users with a consistent view of taxpayer information across all tax types and business functions. This facilitates a consistency of operations across the agency. This streamlines training, since employees use a common system with the same look and feel. Once employees know how to use the system, it is easier for them to learn other duties and take on new tasks since they are using tools and workflows that are already familiar to them.

An ITMS enables automation of high volume, routine tasks allowing agency staff to focus on resolving exceptions and engage in other value-added tasks such as compliance and taxpayer services. An implementation project involving a COTS solution will not only focus on installing new software, but it

also involves redesigning business processes so they are consistent with the software's capabilities. The implementation project will provide the opportunity to streamline agency business processes and align them with the best practices incorporated into the solution.

A new ITMS will provide immediate access to current and historical information regarding work in progress, including operational and management reports and ad hoc requests for information. This will allow managers to plan work and track performance and to redeploy resources as necessary to address high priority needs.

The availability of timely and meaningful information will provide DOR/TAX with a solid basis to develop and utilize a set of performance metrics that are clear, meaningful, realistic, and measurable, and that drive behavior that is consistent its mission, vision, and goals. By DOR/TAX's own admission, current performance measures are not very meaningful or current since they are limited to information that is pieced together and extracted from multiple systems.

3. Enhanced Taxpayer Services

Current systems do not provide a complete view of a taxpayer's file across tax types and functions. Since information is stored in various systems, databases, and spreadsheets, it does not lend itself to a timely or complete snapshot of a taxpayer's activities and status. Since data cannot be readily shared, taxpayers may be asked to report the same information multiple times in different formats to support the needs of different sections and purposes. Difficulty of retrieving information also means that an agency employee may ask the taxpayer to resubmit tax return information, since, from the employee's perspective, it is easier to get the information from the taxpayer than relying on the agency's systems. Limited e-government capabilities also present a burden, especially to large taxpayers.

An ITMS provides real-time access to taxpayer information. Since information is available for all taxes for which a taxpayer is liable, it provides a current and complete view of a taxpayer's file including all tax types, all historical information, and all business activities for the taxpayer. This allows an employee to provide accurate information to a taxpayer about their account or to answer a taxpayer's question without having to look up information from multiple sources. It also supports a "one-stop" experience for taxpayers since they do not need to shop around the agency to find an employee who has access to the information they are looking for. A real-time system allows taxpayer information to be updated regardless of a user's location.

Customer service is enhanced by additional taxpayer self-services via the Internet. This not only supports on-line filing and payment, but enables taxpayers to update contact information, look at previously filed tax information, or file an amended tax return. It would allow DOR/TAX to provide reminders to taxpayers about upcoming deadlines and offer a secure communication channel supporting the exchange of confidential taxpayer information.

Currently, some taxpayers are required to report tax information using complex spreadsheets. Especially for taxpayers who report large amounts of data, this imposes a substantial burden. A modern tax system enables the filing of tax information via Electronic Data Interchange (EDI) which is a structured means to transmit data from a taxpayer's system to the tax agency's system. This not only offers taxpayers tremendous efficiencies, but it reduces potential errors that can occur when data is transcribed from the taxpayer system into a spreadsheet.

An ITMS is able to store, maintain, and retrieve a large amount of data. This capability will enable DOR/TAX to simplify reporting requirements so that taxpayers do not have to report the same information multiple times. It will also allow employees access to the information they need without imposing on taxpayers to resubmit information they have already provided to the agency.

The availability of timely and meaningful information will provide DOR/TAX with a solid basis to develop and utilize a set of performance metrics that are clear, meaningful, realistic, and measurable, and that drive behavior that is consistent its mission, vision, and goals.

Currently, a substantial amount of DOR/TAX's employees' time is spent compiling, organizing, and reconciling data and on manual business processes. This distracts the agency from being able to focus its attention on value-added activities such as taxpayer services and compliance. One symptom is the level of information, instructions, and regulations available to taxpayers. For a tax system reliant on voluntary compliance, taxpayer information and education is an essential component of effective tax administration. Automation of high volume and routine tasks, together with the elimination of activities currently devoted to compiling, organizing, and reconciling data from disparate systems, databases, and spreadsheets, will enable DOR/TAX to refocus its attention on improving taxpayer services and compliance.

4. Enhanced Reporting Capabilities

A major issue repeatedly encountered while preparing this report is the lack of information about workload and day-to-day operating statistics indicating how much work DOR/TAX is accomplishing using current systems. The totals for current receivables, refunds outstanding, refund interest paid to date,

and total taxpayer balance could be obtained by DOR/TAX but only if someone is pulled away from their assigned duties to gather information from spreadsheets, paper documents, or information from images.

DOR/TAX cannot easily produce reports required by the legislature and policy makers because current systems prevent timely, complete, and correct extraction of data. Information is fragmented in 17 systems used to administer different aspects of its tax types, along with over 100 MS Excel spreadsheets, used in unofficial side-systems to track information other systems do not capture.

In order to provide accuracy in reporting, excessive hours are spent comparing, fixing, and formatting data manually prior to producing information for reports. Even with this exceptional effort, reports are often misleading or inaccurate due to incorrect, incomplete data, and, despite the best attempts of the professionals in TAX, human error. Current systems offer very limited reporting capabilities, but tools available are inflexible and oftentimes prevent the agency from producing information in the form and format desired by the OMB, the legislature, or the Governor's office.

A modern ITMS provides an integrated solution with a consistency of information across all business activities. It ensures more reliable information and improved analytical capabilities with data collected, stored, and retrieved in a single database providing real-time access and query capability. It provides the ability to sort, group, and filter data, and to view it with customizable parameters, along with more advanced capabilities to visualize, analyze, drill-down, and manipulate information to meet a variety of reporting and analytical needs.

Modern systems not only support traditional, presentation-ready reports, but also provide online, ad hoc query capabilities. Systems exist for DOR/TAX to enable the agency to manage the day-to-day processes and to measure and monitor system performance, personnel achievements, and work load. DOR/TAX could benefit by moving personnel back to jobs defined in their personnel descriptions and away from data entry or manual number crunching. Systems are available to DOR/TAX that can capture data automatically and allow managers to work on exceptions, allow auditors to perform audits, and allow compliance agents to perform compliance activities. Reporting capabilities in an ITMS can support an enhanced and flexible view of a subset of the system's database and allow for faster, more accurate and more dependable forecasts, analysis, and response to stakeholders.

An ITMS further allows the collection of information and distribution through scheduled email to allow managers to stay connected at all times with the processes for which they are responsible. Alerts, executive dashboards, and user-created system queries place additional tools in the hands of managers, supervisors, auditors, and other personnel to allow more informed decisions and to enhance the management of a division's operations. FAST found many managers working without any of these common tools.

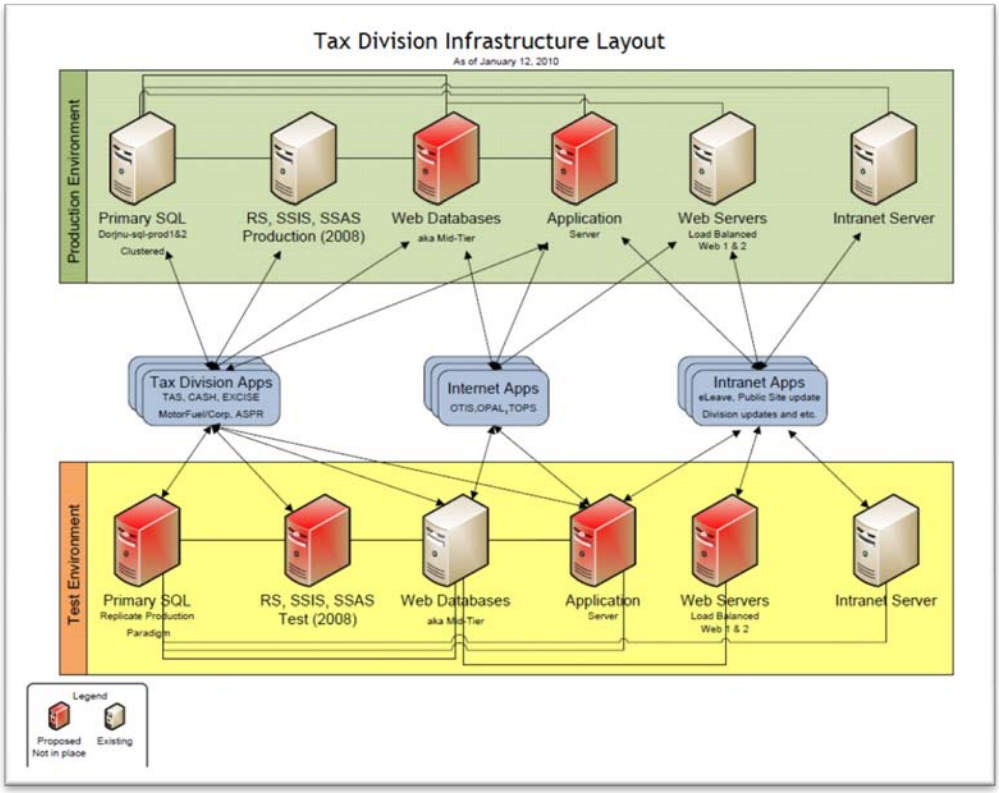
A data warehouse and OLAP cube capability extends information and analytic capabilities by enabling the loading, storage, and manipulation of DOR/TAX and third-party data. These tools leverage the

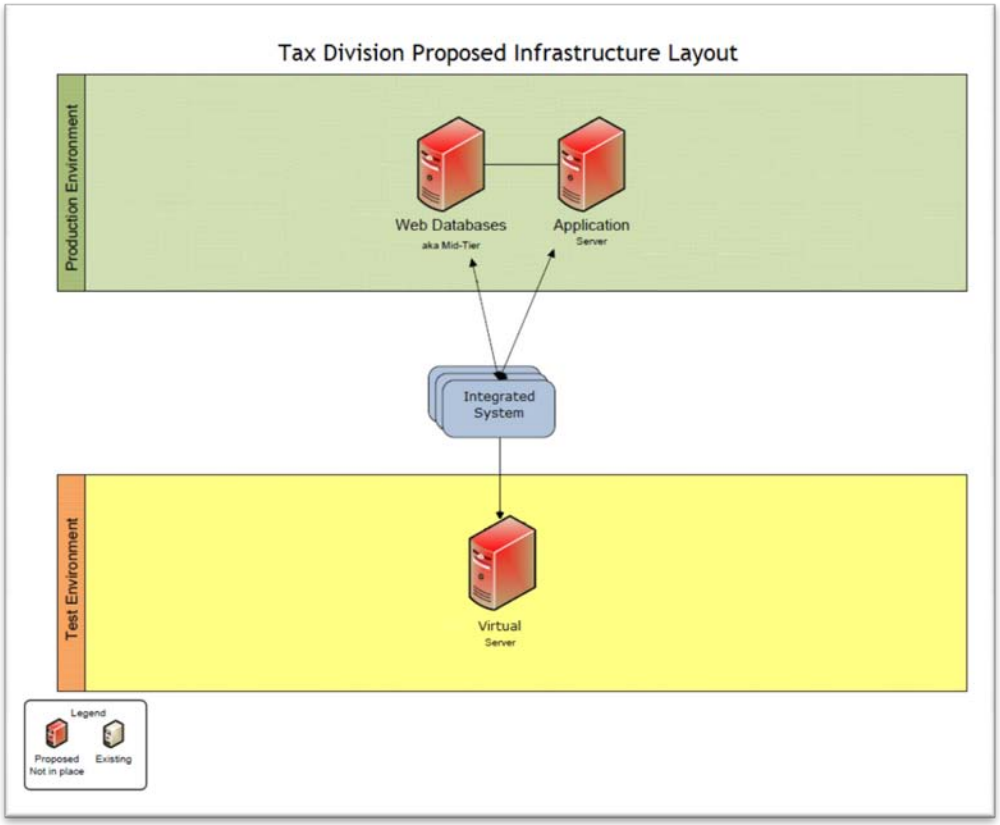
agency's ability to accumulate data from other government agencies and external sources to look for trends, improve forecasts, and increase compliance.

5. Streamlined System Maintenance

Multiple systems require a variety of skill sets for maintenance and development. An ITMS provides a single system with a common architecture and standard delivery platform. It is based on modern technology, so the skill sets needed to maintain and support the system are more closely matched with the education and training provided by universities and technical institutes today.

An upgrade to an ITMS would not only make users more efficient, it would also make technology maintenance more efficient. By being able to consolidate all of DOR/TAX's systems into one system, TAX is only responsible for maintenance of one group of servers, all using the same platform. Throttling can be used to move activity away from one server when service packs need to be applied or other maintenance needs to be performed. Dedicated development and testing environments can allow new development and testing to occur without affecting what users see in the production environment until it has passed testing. Server monitoring tools can give real-time statistics on server response times and be used to make sure the system is running as smoothly and efficiently as possible.





F. Benefits Realized in Other States

Benefits that have been reported by Montana, North Dakota, West Virginia, and Utah are summarized below. Vermont recently went into production and Arkansas' implementation is still in progress, so they have not yet reported benefits information attributed to their projects.

a) Montana

Between 2006 and 2008, the Montana Department of Revenue was able to increase collections from **$40 million to $58 million**, an increase of **$18 million** or 45%. The agency attributes the increase to streamlining and automating the pursuit of routine debt while directing tax officers to focus on complex, high-risk cases assisted by risk assessment and case management tools and improved data accuracy. During the same period, office audit collections increased from **$28 million** to **$41 million**, an increase of **$13 million** or 46%.

b) North Dakota

One year after completing their implementation project, the North Dakota Office of the State Tax Commissioner reported increased revenue collections of **$7.6 million**. They attributed the increase to better tools enabling the prioritization of collection cases and improved audit selection.

c) West Virginia

Prior to 2007, the West Virginia State Tax Department's Compliance Division averaged annual enforced collections of **$88.2 million**. Since 2008, the Division has averaged **$130.7 million** in annual enforced collections, an increase of 48%. The Division attributes the increases to the use of collection case management and risk assessment tools. Also, they have been able to refocus employees who previously performed manual non-revenue generating tasks on collection efforts.

The agency also implemented a new tax discovery program using its data warehouse, matching state records with the Federal Individual Master File (IMF). The program brought in **$460,000** in the first six months of operation.

d) Utah

The Utah State Tax Commission was able to increase individual income tax office audit assessments from **$18.5 million** in 2006 to **$28.6 million** in 2007, an increase of **$10.1** million or 55%. Recovery, as measured by assessments per hour, more than doubled, increasing from **$500** to **$1,010** per hour.

Withholding tax assessments directed at non-filers increased from **$5.5** million in 2006 to **$12.8** million in 2007, an increase of **$7.3** million or 133%. Recovery, as measured by assessments per hour, more than tripled from **$768** to **$2,312** per hour.

The Tax Commission attributes the increases to the use of analytical tools to select high-value audits. For both programs, the number of audits actually decreased between 2006 and 2007, but staff were able to focus their attention on more productive, high-value audits.

G. Funding Alternatives

Five different funding approaches are described for DOR/TAX consideration. While the most common model for public procurement is fixed price, other alternatives are available and some are being used for the procurement of an ITMS. Alternatives are briefly described below.

1. Fixed Price

A fixed price contract is one in which the price is preset and invariable, regardless of the actual costs incurred by the vendor. This approach is commonly used for public procurement in order to keep costs within a predetermined budget. The resources and hours that are required to complete the project may be greater or lesser than those originally estimated, but variations do not affect the amount paid to the vendor as long as the results (software, services, and artifacts, etc.) are delivered according to the terms of the contract. Changes in scope that mutually agreed on between the agency and the vendor may result in a change in the price.

2. Fixed Upper Limit, Time and Materials

This is a variation of the fixed price approach in which the vendor bills the client on a time and materials basis during the course of the project. If the hours and resources that are required to complete the project equal or exceed the original budgeted estimate, this approach is effectively equivalent to a fixed

price contract. However, if the required resources and hours are less than those budgeted, the project comes in under budget. The agency may have the option of investing the savings in additional functionality that may not have been in the project's original scope, or it may return the savings to the state. This approach was used by the state of Idaho in the procurement of its ITMS.

3. Proof of Concept

This is a cautious approach in which some aspect of a solution is tested on a pilot basis before a decision is made to proceed with the full project. For an ITMS project, it might mean putting a small number of taxes or some limited functionality into production before proceeding with the entire project. This approach is usually considered when there is a high degree of perceived risk and the jurisdiction is unwilling to fully commit funds until some element of success is demonstrated. Once the milestone has been reached and the jurisdiction is satisfied that the project's feasibility has been proven, the remainder of the project can proceed. If success is not demonstrated, the project can be abandoned or modified, and the jurisdiction's investment is minimized.

This approach was used by the state of Montana since the Department of Revenue's previous custom-build project was not successful and the legislature wanted to proceed with caution before fully funding another project. Five taxes were included in the proof of concept. Once they were successfully put into production within an eleven month period, the project continued with 47 additional taxes.

4. Benefits-based

A benefits-based project is one in which the procurement is funded from the additional revenues that are collected as a direct result of the project. The vendor is compensated as benefits are realized by the jurisdiction. This approach requires a well established baseline so that increases can be clearly measured.

Benefits-based projects will cost more since they entail greater risks on the part of the vendor. There are also cash flow considerations since the vendor will make investments up front but will not be compensated for them until sometime well into the project, or possibly even after the implementation is complete. However, there are advantages to this approach, particularly if budgets are tight and a project will not be authorized unless it is funded on this basis. The approach also ensures that benefits are received – if they are not, the jurisdiction does not pay the vendor for the project.

A number of different compensation models are possible. Compensation may be capped at a predetermined, fixed amount. Or, vendors may share in a revenue stream for the duration of the contract which means the greater the revenue stream, the greater the level of compensation. Compensation can be based on increased revenues, cost savings, or some combination of both. The agency's internal project-related costs are also taken into consideration and may be paid from the benefits received unless funding has been otherwise appropriated. It is important for the jurisdiction to plan for on-going system costs after the implementation project is complete and paid for.

To be successful, a strong partnership between the vendor and the agency is essential, and a mutual focus must be placed on achieving benefits. The agency needs to be prepared to step up and follow through on its commitment to increase revenues and/or achieve cost savings, recognizing there will be strong incentives on the vendor's part to generate benefits as early as possible. While a benefits-based project can produce other improvements such as enhanced taxpayer service, those will not be the primary focus of the project.

A jurisdiction will likely need explicit legal authority to authorize a benefits-based project.

This approach has been used by tax agencies in a number of jurisdictions both for compliance-related technology such as data warehouses and associated analytics, and for ITMS projects. States with benefit-based projects include Arizona, California, Hawaii, South Carolina, and Missouri.

5. Software as a Service

Software as a service is a relatively new concept sometimes called "software on demand" or a "hosted solution." Under this concept, the solution is deployed over the Internet via a web browser. Database and application servers are physically located at a vendor-maintained site. The vendor is responsible for managing and maintaining the server platforms and the application software, while the client is responsible for individual client workstations.

This option allows a jurisdiction to avoid upfront and ongoing hardware procurement and maintenance expenditures other than costs related to individual workstations. The vendor is responsible for procuring, managing, and maintaining the server platforms and application software, and for all server-side operations and activities such as day-to-day application and database software backup and recovery, database tuning, etc. The vendor provides support and maintenance for the deployed solution including new and revised documentation and defect repair, and addresses service pack analysis and installation as well as the installation and testing of new software versions.

One advantage of this approach is the opportunity for flexible pricing models such as subscription fees or charging per transaction. For example, the cost of hardware, software licensing, and configuration and implementation services, as well as on-going hosting, maintenance, and support could be included in a monthly, quarterly, or annual fixed subscription fee over the contract period (e.g. five years). This provides for stable and predictable payments over a period of time rather than having to finance a single lump sum upfront to cover the costs of a multi-year project.

VII. Implementation Roadmap

This section provides a roadmap for DOR/TAX as it prepares for an ITMS project. It focuses on activities leading up to two important milestones - the procurement process and the start of implementation. The selected business partner will work closely with DOR/TAX to plan many details of the implementation including the implementation methodology, project schedule, conversion approach, testing plan, and training approach. Nevertheless, this roadmap will identify factors contributing to a project's success irrespective of the chosen solution and business partner.

A. Preparing for Procurement: Activities Before the RFP Is Issued

1. Do Your Homework

As with any purchase, an understanding of the marketplace is critical to effective procurement of an ITMS. The rules associated with formal procurement processes often limit an agency's ability to carry out important research that is helpful to develop such an understanding. Some homework is in order before the issuance of an RFP imposes formal communication restrictions on the process.

Consider the following:

- Ask for vendor presentations and demonstrations
- Talk to (or visit) existing client sites:
- "Old" sites that have been in maintenance and support for a long period
- "New" sites that have only recently completed their initial implementation project
- "In progress" sites that are still working on their initial implementation project

As with any purchase, an understanding of the marketplace is critical to effective procurement of an ITMS.

2. Learn from Others

If there is a causal relationship between creating a good RFP procurement process and selecting a successful solution and business partner, then identifying states that have had a successful project and reviewing their RFP document and procurement process is useful. This will leverage the experience of others who have successfully procured and implemented an integrated tax solution.

Questions to ask about the procurement process include:

- Were there many vendor questions regarding the RFP?
- Could you have avoided those questions with further refinement of the RFP prior to issuance?
- How many amendments did you issue?
- In general, were you able to keep to your intended procurement schedule?
- Did you extend the due date? How many times? Why?

- Did the responses provide the information you expected?
- How difficult were the responses to evaluate?
- Was there a clear winner?
- Were there any appeals of the process or result?

Also, you can learn a great deal from those who have migrated taxes to production with an ITMS. Questions to ask about the implementation project include:

- Did implementation proceed smoothly?
- Was your implementation on time?
- Did your project stay within budget?
- Did the scope expand during the project and, if so, why?
- Were there any difficulties with the vendor/client relationship?
- Did you feel as though the vendor was consistently acting in your best interest?

Questions to ask about the ITMS solution include:

- Did it meet your needs at implementation?
- Was it flexible enough to change as your needs evolved?
- Is there any reason to think you would have to eventually replace it?
- Is the solution expanding beyond its original scope?
- Did any difficulties develop with the vendor/client relationship after the implementation project?

Topics to address when asking about their selected vendor include:

- Reputation (i.e., credibility, stability, longevity, management credentials)
- Technical support (scope and responsiveness)
- Willingness to negotiate changes and number of change requests needed
- Training support
- Ability to integrate technological changes into the ITMS product

3. Choosing a Funding Approach

Consider the pros and cons of using different funding approaches including:

- Fixed price
- Fixed upper limit, time and materials
- Proof of concept
- Benefits-based
- Software as a service

These funding approaches are described in section *VII. Funding Alternatives.*

4. Choosing the Type of Solution You Wish to Procure

Various options are available to DOR/TAX for an ITMS including custom, transfer, and commercial off-the-shelf (COTS) solutions. These alternatives are described in section *V. Alternative Approaches*. You should select the type(s) of solutions you want vendors to propose for DOR/TAX's consideration and evaluation.

- If DOR/TAX is interested in a custom solution, it should consider first issuing a Request for Information (RFI) specifically inviting responses from vendors interested in proposing a custom solution for DOR/TAX. The RFI should request a company profile, information about the technology to be used, a system description, pricing and schedule information, the company's experience implementing similar systems in jurisdictions comparable to Alaska, and any other information DOR/TAX believes would be useful in evaluating the costs and benefits of further pursuing a custom solution.
- If DOR/TAX is interested in a COTS solution, they should issue an RFP specifying that responses must propose a COTS solution. In recent years, this approach was used in Arkansas, Mississippi, and Oklahoma.
- If DOR/TAX is interested in either a COTS or transfer solution, they should issue an RFP specifying that responses must propose a COTS or transfer solution. In recent years, this approach was used in Utah.

B. Writing the RFP

It is often considered a "best practice" to contract for assistance in preparing the RFP. In order to avoid a conflict of interest, common procurement practices typically prohibit the company that assists in authoring an RFP from responding to that RFP.

While you will want to rely on the professional expertise of the firm you engage for RFP assistance, some general guidelines are provided for consideration.

1. Structure and Content

Consider the following general guidelines:

- Mandate a uniform structure for the response. This allows you to compare responses directly, topic by topic, in order to determine relative compliance, responsiveness, and merit.
- Minimize "essay" questions. Invitations to "describe" or "discuss" can lead to lengthy narratives that are time consuming and difficult to evaluate while the evaluations themselves can be difficult to quantify.
- State the agency's expectations and invite the vendor to concur or to propose and justify an alternative.
- Identify areas in which the agency has some flexibility and ask for the vendor's advice and recommendations – for example, the implementation schedule.

- When seeking a COTS solution, avoid prescribing implementation methodology. The approach to implementing a COTS product differs from custom development.
- Work the evaluation of an oral presentation and demonstration into the final score of the response.

2. Reference Sites

Consider the following:

- Request references from previous clients that are similar to your agency in size and project scope.
- Consider requesting contact information for all of the vendor's client sites – not only those sites that the vendor lists as "reference sites."
- As you check on references, do not limit your questions to pre-defined, fixed questions. Give yourself the flexibility to follow up on information provided by the reference contact.
- Participate in onsite visits to reference agencies and discuss their solution and implementation experiences.

3. Show and Tell

The DOR/TAX project manager must organize a competent and knowledgeable project team of functional and technical subject matter experts to participate in the contractual process (i.e., vendor analysis, vendor demonstrations, and evaluation of proposals.) The project manager must work closely with acquisition staff to ensure that each vendor demonstrates, and can provide examples and references, for services and work products that are consistent with contractual obligations proposed and responded to in the RFP.

Consider the following:

- Include an oral presentation and demonstration in the evaluation process. This will allow the agency to see the product and the proposed team first hand.
- Provide in advance a list of business functions to be demonstrated by the actual, proposed project staff.
- Allow time for questions and answers. In addition to allowing for clarification, this will allow you to evaluate the vendor staff with whom you may be working.
- Decide how much weight to place on product demonstrations in the final score – actual demonstrations may be more important than what a vendor writes or says about their product

Include an oral presentation and demonstration in the evaluation process.

4. Proposed Project Staff

Consider requesting resumes for key proposed staff such as project manager, application architect, training Lead, technical lead, and conversion lead. It is often difficult for a vendor to commit to, and provide resumes for, an entire project team. Consider the relative importance of experience and demonstrated success with the proposed solution in a tax agency vs. industry certifications (PMP, Microsoft, etc.).

5. Contract Terms

Consider the following:

- Include a sample contract. Ask for comments and suggested changes.
- Make terms and conditions reciprocal where appropriate (for example, relationship of parties, assignment, and confidentiality).
- Must all contractual issues be resolved at the time of the response submission? Alternatively, will the agency have the flexibility to negotiate the contact with the apparent successful vendor?
- Plan on entering into a long-term relationship with the vendor for software and services, such as ongoing software maintenance, new software releases, support, and other service

6. Financial Provisions

Consider the following:

- Deferred payment and bonding are forms of insurance. They increase costs to the agency, and it is important to ensure costs are not disproportionate to the benefit.
- Consider avoiding liquidated damages and indirect damages, and setting a reasonable limit on liability for direct damages.
- Liquidated damages and significant bond requirements can preclude some companies from even responding to an RFP.
- If a performance bond is necessary:
    - Subject only services to a bond; hardware, software license, and software maintenance should be excluded from bonding.
    - Stipulate that only a percentage of the service contract value be subject to bond – for example, 10% of the service contract value.
    - Tie the bond value to the value of the single phase of work in progress.
    - Permit the bond to take various forms (cash, letter of credit, surety).
- Consider a percentage holdback of payment until that phase of work is delivered successfully in lieu of a bond, but avoid combining a holdback with a bond – that is a form of double jeopardy with financial implications on the cost of the project.
- If a fixed price bid is being considered, avoid emphasis on consultant hours. Decide if the proposal needs to quantify project hours and require timesheets.

- Regardless of the funding model, consider a payment schedule that provides for progress payments based on project milestones.

7. Payment Schedule

Consider the following, especially for a COTS solution:

- Typical approach for one-time costs:
    - Initial license upon installation (for example, week two of the project)
    - Annual maintenance starts then and continues indefinitely
    - Services for each phase priced separately
- Two models for on-going costs:
    - Maintenance and support priced separately – lower initial cost, higher long term cost
    - Maintenance and support bundled - higher initial cost

8. Identifying requirements

When you are identifying requirements for a project, consider defining technical, functional, and management requirements.

a) Technical Requirements

Consider the following:

- When defining technical requirements, consider specifying that the solution is based on widely - used, non-proprietary, proven technology that has a solid history of upgradability.
- Consider whether you want to limit alternatives by specifying the programming language or other technical architecture components. There are many different and powerful technologies to choose from and this should not drive the business decision.

b) Functional Requirements

Consider the following:

- It is not feasible to develop an exhaustive list of detailed requirements across all the functional subject areas of an ITMS. Furthermore, it cannot be assumed that meeting every line item requirement in such a list – even if there are thousands – means that the solution is complete. The true measure of the completeness of an ITMS is the agency's ability to use it to administer tax without resorting to extensive manual processes, side-systems, and other software tools or products.
- The functional requirements list should be a yardstick by which solutions can be measured against one another. Therefore, express a reasonable number of requirements – enough to evaluate the solution but without exhaustively specifying it. Think in terms of 200-300 functional requirements not 2,000-3,000.

- Focus on business outcomes by clearly stating business requirements as a "what" without prescribing the "how."
- Avoid open-ended requirements such as open-ended requirements such as "including but not limited to" and "must meet all current and future standards."
- Avoid trying to eliminate your IT unit through requirements such as "must be able to change configuration without IT involvement" or "must be able to create report without IT involvement."

c) Management Requirements

Consider the following:

- Clearly mandate conformance with state law, department regulations, and oversight agency policy and practices.
- If you are implementing a COTS solution, be prepared to manage an iterative process with minimal formal signoffs and occasional "rework."
- Avoid specifying an implementation methodology, if you are implementing a COTS solution, most have methodologies that are designed for the product. Allow for alternative approaches, but make the vendor prove that the alternative has worked elsewhere.
- Decide whether to dictate the schedule, phases, and length of contract. If there is flexibility, allow the vendor to propose an approach.
- Limit paper deliverables to those required to know the project is on track and successful. Project integrity is often hindered when too much emphasis is placed on document development rather than system implementation.

9. Technical Platform

It is important that the platform be:

- Based on mainstream technology
- State-of-the-art and not at end-of-life
- Economical to acquire and maintain
- Pervasive in the industry to ensure availability of replacement parts and support resources
- Designed to meet the load and performance requirements of the solution

10. Functionality

Consider the following:

- Be precise about the meaning of "mandatory." Will not meeting a single mandatory requirement result in disqualification?

- For a COTS solution, the use of response categories for each function can assist by defining if the capability:
    - is in the base product and configurable "out-of-the-box" (requires no programming);
    - will be supported by site-specific (custom) programming;
    - will be supported in a future release of the product - should the new function be in beta test and demonstrable to qualify for this response?
    - is not directly supported by the product but will be supported through an interface to, or use of, other software; cannot or will not be supported.

11. Methodology

Ensure that the proposed methodology has been employed successfully (i.e. on time, on budget) to implement the proposed software for integrated tax administration for an agency of similar size and complexity.

Avoid an overly rigid scoring process. This can lead you to a vendor that looks good on paper but cannot substantiate its cost and experience claims.

12. Current Install Base

Require that the proposed solution has been in production for integrated tax administration for an agency of similar size and complexity for some minimum period of time, such as two full agency business cycles.

13. Vendor Record of Accomplishment

Require that the vendor and particularly the proposed key resources have implemented the proposed solution for integrated tax administration for an agency of similar size and complexity using the proposed methodology.

14. Vendor Financial Stability

Require that the vendor provide recent financial statements or other proof of stability.

15. Price

Consider a "best value" approach as an alternative to "low cost" when developing the scoring method. A best value approach is based on the combination of technical score and cost score.

16. Evaluation Approach

Avoid an overly rigid scoring process. This can lead you to a vendor that looks good on paper but cannot substantiate its cost and experience claims.

C. Alternate Method

The Oklahoma Tax Commission is using the Performance Information Procurement System (PIPS) in their current procurement process for an ITMS. PIPS is described as a "best value" selection and management process that can be used to purchase any type of product or service. The process provides clients with a tool to assist them in making an informed decision based on performance information and not based solely on price or marketing information. The process has a mechanism to document and manage the vendor/service during the project.

D. Preparing for the Project

1. Creating a Project Team

- Select a Project Champion - an agency executive or senior manager whose role is to promote the project both within and outside the agency including stakeholders who may be impacted by the changes. The Project Champion acts as the "cheerleader" for the project.
- Select a Project Sponsor - an agency executive who can provide high-level direction to the project and assume responsibility for approving all significant decision requests. The Sponsor also acts as the final level of issue resolution within the project.
- Establish a Steering Committee - comprised of senior user management and the project directors from both agency and vendor side. This committee assumes responsibility for deciding management, policy, and directional issues that affect the project, primarily from external sources. This committee should meet on a regular scheduled basis to discuss options, issues, and areas of concern. This forum also provides a venue to demonstrate new or upcoming project changes.
- Select a Project Communications Coordinator - Consider appointing a Project Communications Coordinator very early in project planning with the responsibility and authority to communicate the progress, needs, and accomplishments of the project. A critical task of this role is to inform staff and stakeholders of the project's progress and facilitate the flow of information for decision making. From time to time, the project Communications Coordinator will involve staff and other stakeholders to contribute.
- Consider an Independent Project Manager - An independent project manager can provide the link between the project stakeholders and vendors that will undertake the work. Additionally, the independent project manager will work with the vendor's project manager to form a team responsible for providing management of integration, scope, time, cost, quality, human resources, communication, and risks for the project.

2. Creating a Partnership Approach

In many implementations a "partnership approach" to project staffing is desired - some states have made this a requirement of the successful vendor. This approach helps ensure project success and incorporates good practices, into processes and plans and provides the basis for effective knowledge

transfer. The close day-to-day working relationship, between DOR/TAX and the vendor, should enable joint management and control of the project, manifested in several key areas:

- Support the open, unrestrained, and frequent exchange of information and ideas. This promotes efficient communication between the vendor's team and DOR/TAX representatives, stakeholders, and sponsors at the various organizational levels.
- Encourage direct participation by the DOR/TAX management team and stakeholders at meetings, status reviews, planning sessions, and via oversight activities.
- Invite the active participation and involvement of DOR/TAX managers in the measurement and control of risk and the resolution of problems and issues.
- Encourage active participation by DOR/TAX users in the development of testing plans, test material development, and actual testing to ensure we address actual user perspectives
- Ensure active participation by DOR/TAX technical staff (developers, support, and operations) in the installation of the environments and the development and configuration of the solution

DOR/TAX can begin planning and executing a data cleanup strategy immediately, even before an RFP has been issued and well before an implementation project begins.

DOR/TAX should require the successful vendor to align their working hours and holidays so the vendors are available to support DOR/TAX throughout the project. Additionally, because of its unique geographic location DOR/TAX should require the vendor to have a full time presence in the state during project implementation. Time lost due to fly-in/fly-out days prevents successful communication and does not provide responsive information exchange, effective executive oversight, or coordination with third-party vendors, user communities, or other stakeholders.

3. Preparing Data

Many revenue agencies contemplating a new ITMS are currently working with a suite of applications that are up to 30 or even 40 years old. Most of these applications outgrew their flexibility and expandability many years ago. Relaxed business rules representing the lowest common denominator of data edits may have resulted in inconsistencies, redundancies, and generally poor data quality overall.

The first step to prepare for conversion into a new system is to understand your data resource. The first step in doing that is to determine where to find the profound data resource knowledge. This may be in written documents but, all too often, written material is incomplete and out of date. Your best data resource information may come from your people.

DOR/TAX can begin planning and executing a data cleanup strategy immediately, even before an RFP has been issued and well before an implementation project begins.

Data cleanup should take a "work smarter, not harder" approach. Not all data needs to be cleaned - only the data that is likely to be converted. Two factors can help to determine what to clean:

- How old to convert, as governed by both statute and practicality?
- Which is the best source of redundantly held information?

Start by identifying the best sources, for example, where is the best address information, and cleaning the most current information in those sources. Automated means are preferable, but manual means may be necessary.

In addition to improving the data quality, the analysis needed to drive a cleansing process will be helpful in the conversion phase of a new system implementation. Time spent in reconnaissance is seldom wasted.

4. Determining the Location of the Project

One issue somewhat unique to DOR/TAX is that key employees needing to be involved in the day-to-day decision making during the implementation project are split between two locations, Juneau and Anchorage. This includes users who specialize in the same tax program and in some cases the same functional area. DOR/TAX needs to determine if the project staff will primarily be located in Anchorage, Juneau, or whether the project can operate with employees located in each of the two cities. The overriding issue to consider when making this decision is "What is the best location to ensure a successful project?"

When determining the project location, factors that should be taken into account include:

- Decision makers involved
- Staff buy-in to project decisions
- Interaction between project staff and system users
- Users and project staff needs for relocation or travel
- Communication capabilities between project staff at the two locations
- Strategy for knowledge transfer

VIII. Project Management Plan

This Project Management Plan (PMP) establishes the framework necessary for the execution of the procurement and configuration of a new ITMS for DOR/TAX. When fully populated, this framework for a PMP will outline the project scope, budget, configuration, resource requirements, and responsibilities necessary. This PMP will also outline the technical performance requirements for the management and control of the project from initiation through final delivery. The plan provides performance measurement criteria including major milestones. This PMP should be a living document subject to change as conditions warrant, or as project experience dictates.

A. Integration Management

1. Develop a Project Charter

DOR/TAX developed a project charter in 2008.[3]

2. Develop a Project Management Plan

This document serves part of that need as it begins to document the actions necessary to define, prepare, integrate, and coordinate a successful implementation of an ITMS.

3. Direct and Manage Project Execution

The process of tracking, reviewing and regulating the progress of the project to meet the objectives of DOR/TAX will be the responsibility of the project management team. DOR/TAX can make the team management selections mentioned in the previous section of this report before funding approval. DOR/TAX may also want to consider hiring an independent project manager.

Technology projects are high cost and high-risk endeavors. There are many examples of highly publicized failures. The successful projects have a number of things in common, one of which is a cohesive approach to overall project management.

Projects in Colorado, Idaho, Louisiana, Maine, Montana, North Dakota, and Utah employed an independent project manager with good results.

Projects in Arizona, New Mexico, West Virginia, and Wisconsin, have been successful without an independent project manager because the agency was able to dedicate and appoint talented resources from their own staff.

[3] Refer to the attached *Project Charter* for more information.

Some public sector agencies do not have personnel with proven project management skills or are unable to devote someone with the appropriate skills to the day-to-day details of coordinating a major technology implementation. Utilizing an independent project manager to provide professional project management services can add value to the overall execution and help ensure the success of an ITMS.

An independent project manager can provide a broader perspective from their exposure to similar projects. They can bring a working knowledge of proven project management methodologies and tools, system implementation strategies, and project risks. Hiring the right independent project manager with revenue system experience will bring an understanding of how ITMS implementations affect agency business processes, organizational structures, and resource requirements, enabling the project manager to help balance project needs with the continuing day-to-day activities of the agency.

A key benefit of using an independent project manager is the unfettered viewpoint they provide. They focus solely on the project, with no conflicting responsibilities within the agency. They have no organizational bias and are thus able to mediate controversial issues without fear of burning political or organizational capital. They are also independent of the system vendor, so they can provide an objective evaluation of status, help control project scope and manage change, and facilitate decision making. This independent viewpoint helps enable both the agency and the system vendor to focus on what they do best without distraction. Additionally, it facilitates the interaction between the agency's users and the vendor's project staff and provides an added level of confidence to outside stakeholders.

All projects involve change. Change management does not happen without a major change effort occurring in the organization.

4. Perform Integrated Change Control

All projects involve change. Change management does not happen without a major change effort occurring in the organization. Success of that change effort depends on a well-planned, well-executed, implementation program that prepares and enables stakeholders to utilize the new technology and adapt to the new work processes.

a) Sources of Change

Issues arising on the project normally take one of two forms, issues with differences in configuration and functionality or issues with and between personnel. Project management will concentrate on issue resolution at the lowest level and encourage open and effective communications between and within all levels.

The selected vendor should provide evidence of a method of managing changes to functionality in order to assist in scope management and provide a communication medium for the change. Subject matter

experts, team leads, and project managers must be empowered to devise solutions, present viable solutions for consideration, and make recommendations for change to ensure project success.

Not all people think alike. Expect differences in opinion, and celebrate the value different viewpoints bring to the project. Diversity of perspective can lead to a better result. It is only when the differences begin to adversely affect the project or take on a personal nature that intervention by the project management team becomes necessary. The vendor should strive to ensure all communications remain professional by providing team-building opportunities, learning opportunities, and issue resolution channels, thereby establishing a professional yet fun workplace early, and continually, throughout project execution.

b) Change Management Plan

DOR/TAX should ensure the successful vendor has a plan for both functional and/or configuration change management and business process change management.

The goals of a Change Management Plan are to:

- Facilitate the successful implementation of the ITMS
- Help DOR/TAX management anticipate issues, improve their change leadership skills, and manage risk related to the DOR/TAX staff's ability to adapt project-initiated changes
- Provide a framework for DOR/TAX to address the organizational changes resulting from this project

Normally, a project incorporates a Change Order process for situations in which the contemplated change will have a cost and schedule impact. Some non-cost and non-schedule decisions can be made informally by agency staff and management assigned to the project or within the executive oversight group. Between the two extremes of informal decisions and formal Change Orders, a Decision Request process can be helpful.

Specified in the Change Management Plan, Decision Requests are an established method of raising project scope problems, questions, or concerns in a timely, concise, and consistent way. Not all issues that come up during the project rise to the level of a Decision Request. The vast majority of issues will be resolved by the project team during the course of the project. For issues not resolved on the shop floor, a structured decision process with a Decision Request Form and associated procedures helps ensure the issues are presented to management in a complete and concise fashion. The issues are tracked through the decision-making process until resolved.

Additionally, a Decision Request Form helps ensure the team presents issues to decision makers in a complete and concise fashion. The form directs staff to include the issue origination date, the decision needed by date, and the project priority level. A Decision Request Form in conjunction with the Decision Request log tracks a decision from inception until resolution and serves as a historical archive for the project. When implementing a COTS product, for example, decision requests may take one of the following paths:

- Issue is determined a project issue
    - and is resolved internally by new, changed, or standardized business process.
    - and is resolved by a change in configuration (results in a Change Request).
    - and is resolved by a change to code (results in a Change Request).
- Issue is determined not a project issue and is resolved by changed communications.

Using change management techniques, communicated in a change management plan, DOR/TAX will be able to transform their current processes, technology, and work environment. With leadership forging the way, along with an involved group of stakeholders, an organization can manage and lead change effectively.

Human resource processes such as new organization design, job design, selection and performance management systems must be aligned with the future workplace to sustain lasting change. Technology can assist. In the course of preparing this project, it was noted that current performance metrics do not adequately provide clarity for managers nor do they provide adequate goals for the staff. The current performance measures are limited by the current technology.

These are ten common barriers to change which must be understood to successfully develop activities to avoid these challenges:

- Resistance to change
- Inadequate sponsorship
- Unrealistic expectations
- Poor project management
- Case for change not compelling
- Project team lacked skills
- Scope expansion
- No change management process
- No horizontal process view
- IT perspective not integrated

Employee resistance to change, inadequate sponsorship at the leadership levels, and the inability to manage expectations typically are the greatest challenge, especially if the overall program does not include strategies and actions to minimize these barriers. In addition, the lack of a developed case for change without a change leadership program makes it difficult for an organization to successfully transition.

The remaining barriers, team skills, scope expansion, no horizontal process view, and the IT perspective not integrated, are addressed through strong program and project management. A key message is that along with other important project areas, change is a significant component that must be planned and managed to successfully implement technology projects.

To obtain the goal of efficiency, DOR/TAX will need to build in transparency, create a flexible organization, and foster a culture that supports agency-wide teamwork, while maintaining individual accountability. To achieve this goal, DOR/TAX will need to review its organizational design and be open to job reclassification.

c) Business Process Reengineering

Installing an integrated tax solution is primarily a business process reengineering project. The solution incorporates and supports "best practice" tax administration, providing a suite of integrated tax functions that are designed to work together in a particular way. In addition to configuring the agency's business rules into the solution, the agency must "wrap itself around" those functions.

Throughout implementation and afterwards, opportunities for business process improvement (BPI) will surface. The new system will provide capabilities that were not previously available or it will simply take a different approach that supports streamlined business procedures. Occasionally, BPI opportunities will spawn or enable organizational changes – some of which may have been long contemplated and some which are newly devised.

While the agency should embrace these BPI opportunities, it is prudent to take a measured approach. Wholesale "boil the ocean" BPR and organizational change can actually hinder, or even endanger, an implementation project depending on an organization's capacity.

B. Scope Management

It is a natural tendency of internal stakeholders (and sometimes developers) to pile on additional requirements and enhancements that often substantially increase project risk, time, and/or cost. Effective control of the project scope involves collecting requirements, defining the scope, creating a work breakdown structure, verifying the scope, and controlling the scope. The independent project manager or state project manager in association with the vendor's project manager and the concurrence of the Project Steering Committee must have the ability to manage scope throughout the life of the project.

1. Collect Requirements

This report, combined with the previous research and studies performed by DOR/TAX since 2007 have provided a rich source of information that taken together can form the basis of the high level requirements for this project. The requirements will need further refinement, weighting, and revision for inclusion in a future RFP.

Requirements for a new tax system should include the following functional areas:

- Entity creation and maintenance
- Payment processing
- Returns processing
- Return issue / license renewal
- Non filer identification and processing
- Gap filer identification and processing
- Taxpayer transactions processing
- Refund processing

- Collections and compliance monitoring
- Taxpayer correspondence management
- Internet services for taxpayer self-service
- Integrated security
- Integrated reporting, OLAP cubes, analysis tools
- Integrated Imaging
- Revenue fund management
- Shared taxes processing
- Audit functionality and management
- Appeals case management
- Data capture and imaging support
- Integrated workflow management
- Data warehouse storage and management
- General case management
- Inventory management
- Interface capability

2. Define Scope

According to *In Search of Excellence in Project Management* (Kerzner, 1998), the scope statement becomes the basis for all future project decisions. Therefore, a clear understanding of project scope, its definition, and the manner in which scope changes would be implemented into the project is key to project success. Kerzner (1998) states, "Scope definition is extremely important to the success of any project" and "Scope 'creep' and scope 'leap' are often the root cause of project failure" (p. 13).

DOR/TAX defined the scope for this project in their *New Tax Revenue Management System: Project Charter* (ADOR/TAX, 2008) as follows:

> "A complete integrated tax processing software package, designed to support the Tax Division with the management of multiple taxes and licensing, and associated business and processing rules, with minimal changes to the program code – and meets state IT standards and federal (IRS) security standards. The package will support configuration covering almost all aspects of the system including returns, letters, penalty, interest, transactions (financial and non-financial) customer demographics, workflow, terminology and a robust user interface" (p. 5).

The scope of the ITMS project should contain the following components:

- Project management
- Implementation of the ITMS
- Implementation of hardware, software, and network infrastructure
- Conversion of legacy data
- Business process reengineering support
- Training of users, IT support staff, and management
- Documentation of site-specific procedures, processes and changed functions
- Post-implementation maintenance and support

The scope of the ITMS project should include all the functional activities for the following tax types:

- Oil and Gas Production
- Oil and Gas Conservations Surcharge
- Oil and Gas Property
- Corporate Income
- Tobacco
- Motor Fuel
- Alcoholic Beverages
- Commercial Passenger Vessel
- Large Passenger Vessel Gaming
- Vehicle Rental
- Tire Fee
- Mining License
- Fisheries Business
- Fishery Resource Landing
- Seafood Marketing
- Salmon Enhancement
- Seafood Development
- Dive Fishery Management
- Telephone Cooperative
- Electric Cooperative
- Gaming
- Estate

3. Create a Work Breakdown Structure (WBS)

Creating a WBS is the process of subdividing project deliverables and project work into smaller more manageable tasks. This report, building upon the previous work DOR/TAX performed, begins the process of creating a WBS by defining the objectives of the proposed ITMS project follows:

- Replacing all 17 official systems and over 100 MS Excel spreadsheets in side-systems, with one integrated system. Current legacy systems will be retired as the tax types they administer are integrated into the new system.
- Migrating all 22 tax types to a new ITMS better capable of serving the needs of Alaska's taxpayer base. The results of this project will provide for the technical and functional requirements of the identified taxes administered by DOR/TAX.
- Providing the ability to quickly adapt the tax types to the State's ever-changing tax laws and regulations
- Cleaning and preparing data for conversion from existing legacy systems
- Training users and operators to fully utilize system functionality
- Interfacing with current and new e-filing programs, including MeF
- Increasing compliance functions including non-filer, collections and audit
- Providing for data warehouse and integrated imaging capabilities
- Automatic distribution of shared taxes after user approval
- Configuration development that meets the State of Alaska and DOR's specific requirements while at the same time investigates potential process changes to improve efficiency and fairness.

Along with replacing the numerous MS Excel side-systems used to administer DOR/TAX's 22 tax types, work tasks during the project would also involve replacing and retiring existing legacy systems. TAX has identified the following systems for replacement with an ITMS:

- CPS
- TAS
- DEE Excise
- DEE Motor Fuel/Corp
- ASPR
- OTIS
- OPAL
- OVR
- EMR
- Fish and Game License Application
- Interest Engine for TAS
- UP Viewer
- Travel Document Image Viewer
- Oil and Gas Production Tax MS Access Databases
- Online Public Reports and Queries
- Gaming Stamp Manager
- Petroleum Property Tax Application

4. Verify Scope

DOR/TAX will perform this step when formally accepting the list of deliverables.

5. Control Scope

The project management team will control the scope by measuring, monitoring, and reporting on project metrics throughout the project. Project performance measures will assess the variance from the originally determined scope when requests for changes arise. When change happens, the project management team will update the associated project documents and stakeholders will receive communications that reflect the change.

The requirements documentation will form the basis for the scope. The team will use one or more of the following methods to track the variation from the base scope:

- Work completed vs. schedule
- Cost vs. budget
- Performance vs. expectations
- Open issues review
- Updated risk assessment

C. Time Management

1. Define the Activities

The WBS developed during scope development will aid in creation of the work packages necessary to accomplish the objectives envisioned. The project management team will perform this step during the initialization phase of the project.

2. Sequence of Activities

Once all the activities are known, the project management team will sequence the specific activities necessary for completion of the project. One of the important decisions to make for this type of project is which tax type(s) to implement first. This is a decision that will need inputs from the vendor, the independent project manager (if one is used) and the units involved. Factors that can influence the decision to implement one tax before the other are:

- Current processing capability
- Expected changes to legislation
- Current hardware limitations
- Due date for tax types
- Group readiness, or personnel availability, and impact on current group workload
- Other taxes implemented at the same time

3. Estimate Activity Resources and Durations

In finalizing the schedule during project initialization, the project management team will need to take into consideration the resources from the vendor and the user groups. These kinds of projects require

coordination with SMEs, project management, and developers to ensure testing, training and phases of implementation happen at specific points in the schedule.

4. Develop the Schedule

The project management team will develop an estimated project schedule prior to the project kick-off meeting. The schedule may be revised as situations dictate during implementation. However, projects tend to finish on time when the schedule is a driving factor and everyone is dedicated to meeting the schedule. The schedule will contain milestones for deliverables, wherever applicable. DOR/TAX developed a primary sample schedule in 2009 as a representative project schedule. Although envisioned as a 5-year plan, the project might be completed sooner depending on resources and requirements. DOR/TAX should allow the prospective bidder to propose a project schedule that meets the division's baseline criteria. The proposed schedule created by DOR/TAX is shown in the *TRIMS* (ADOR/TAX, 2009) report.

5. Control the Schedule

After the Project Management Team develops the project schedule depicting interrelationships of tasks and activities, milestones and durations the team will then implement the schedule and begin to manage and monitor the schedule to ensure project completion.

During implementation while reviewing progress reports and reports of other performance measures the Project Management team will forecast changes necessary to the schedule. When forecasts indicate a need to change, the team will assess those changes against both the schedule and the scope.

One of the best methods to ensure the control of the schedule is to ensure all stakeholders stay informed of issues relating to that schedule. In this instance, communication is the key to an effective schedule.

D. Cost Management

The cost section of this report provides alternatives, estimates, and comparisons for funding, costs, and methods used to pay for an ITMS project. When DOR/TAX and its funding authorities make those determinations, the project management team will be the key leaders to ensure the project stays within the budget. Some of the techniques the project management team will use to control costs are:

- Ensuring that all change requests are acted upon in a timely manner
- Managing changes when they happen
- Monitoring work performed

E. Quality Management

Providing a quality product on schedule and within budget is the primary objective of all team members. DOR/TAX must ensure the selected vendor has a plan for testing and metrics for quality control. DOR/TAX must measure quality by the degree in which the vendor meets the requirements and provide

feedback quickly and accurately. The project management team must insist on meeting project objectives in such a way as to:

- Prevent overworking the project team
- Provide enough time and resources to adequately detect errors early in the process

Quality principals from the *PMBOK Guide* (Project Management Institute [PMI], 2008) stress the following:

- Customer satisfaction: For this project, customer means all stakeholders including DOR/TAX users, managers, and taxpayers. The stakeholders must be able to notice a change for the better.
- Prevention over inspection: The vendor must employ quality methods, using verifiable tools and metrics to ensure they design and build a product with quality in mind.
- Continuous improvement: The selected vendor must learn and adapt and so must DOR/TAX. These projects are all about change and improvement of the current state. All changes should measure up to improvement.
- Management responsibility: Success in these types of projects depends heavily on management involvement. Even if DOR/TAX elects to hire an independent project manager, the management responsibility to provide quality people, quality advice, and prompt decisions to the project remains.

F. Human Resources Management

The processes described in this plan supplement existing regulations for establishing more detailed and specific relationships among stakeholders participating in this project.

1. Develop Human Resources Plan

In the 2008 project charter, DOR/TAX identifies specific individuals, the skills, and the roles necessary for the project. In some implementations, the personnel dedicated to the project change positions within the organization and their previous positions remain unfilled for the duration of the project. In other organizations, the people move back to their previous positions upon project completion.

Before the project begins, and before assigning personnel to the project DOR/TAX should determine:

- Who will project members report to?
- How will the assignment to the project affect positions?
- What happens when the project ends?

One of the most critical roles on an ITMS project team is the SME. These projects are often more of a business process redesign than a technology upgrade. That makes the expertise of a SME a valuable and essential resource worthy of close management. Some key considerations for SME management follow:

- Trust is an important selection criterion for a SME. Often the agency knows they selected the right person from the unit if it is painful to give them up for the project. The sacrifice of valuable

resources made during project execution will make a huge difference. The SME needs to be trusted to make good decisions and have the backing of their management in order to be successful.

- A SME's responsibility is to represent accurately their business units' needs to the Project Team, and to validate the deliverable. SMEs also carry information about the project back to their user community and assist with effective communications to other stakeholders. During each rollout, SMEs will test the product and perform tasks normally performed by the user community. SMEs are often the best source of feedback to the project team.
- SMEs should be co-located with other project team members to ensure day-to-day contact and effective knowledge transfer. SMEs co-located on to the shop floor often learn more about the agency and are exposed to all aspects of the system. Skills of SMEs often expand beyond their previous legacy job description.
- Often, at the close of a project, the SMEs receive recognition as system experts, and provide a very valuable resource to the agency. Proper planning, early in project implementation, for post-project usage of the SME's skills is essential to maintaining them as a resource long into the future.

2. Acquire Project Team

Another important consideration is the on-boarding of project team members. When team members join and leave the team has significant impact on the project and the implementation. Key members such as the project managers and leads should begin and end the project to maintain continuity throughout the implementation. SMEs can join the project and leave the project when it moves into areas outside their expertise. The human resources plan created by the project management team prior to the kick-off meeting should communicate to all stakeholders when the project will need certain members for the project.

3. Develop Project Team

Our experience has demonstrated co-location greatly facilitates involving business experts not otherwise assigned to the project in the discussions and decisions related to the new system. Co-location also facilitates team interaction, improves the competency of individuals, and enhances the project performance. DOR/TAX should also work with the selected vendor to:

- Ensure developers have or obtain the minimum qualifications for the technology used
- Establish conditions to allow effective knowledge transfer
- Provide numerous and varied opportunities for learning new processes and procedures

4. Manage Project Team

Effective communication will assist in managing team performance. Providing feedback, and being proactive when issues arise, will optimize team performance and help to ensure success. The project management team will establish project standards to influence the project team and set professional and ethical standards.

G. Communication Management

Effective and appropriate communication is the key to an efficient organization. Furthermore, effective communication is important to the successful delivery and completion for DOR/TAX because it helps to align everyone to a common goal. Throughout implementation, clear and timely communications will help ensure DOR/TAX has the information required to make informed decisions on the implementation. It will also help to ensure the user community not only adopts but also welcomes the new system.

Another purpose of communication planning is to ensure the core and extended project team members develop an effective communication strategy for affected stakeholders. Important to the project communication strategy is identifying key stakeholders, developing accurate and consistent messages, and delivering the messages effectively. Successful project team communication depends on all core and extended project members playing a role and taking personal responsibility in the messages they deliver.

Effective, comprehensive, and coordinated communication is also a fundamental component of sound project management. Accordingly, developing and executing a thorough communication plan is a critical success factor in implementing a new system.

DOR/TAX should ensure the selected vendor proposes a coordinated communication plan used to identify communication targets and sources, messages that will satisfy the informational needs of those targets, messages that DOR/TAX need to hear from its sources, and the most effective methods for delivering and receiving those messages.

H. Risk Management

According to the *PMBOK Guide* (PMI, 2008), project risk management comprises the processes concerned with identifying, analyzing, and responding to project risk. It includes maximizing the results of positive events and minimizing the consequences of adverse events.

The processes include:

- Determining risks likely to affect the project and documenting the characteristics of each
- Evaluating the risks and risk interactions to assess the range of possible project outcomes
- Defining enhancement steps for opportunities and responses to threats
- Responding to changes in risk over the course of the project

1. Identified Project Risks

When embarking on an integrated tax management project, DOR/TAX leaders will face several risks and challenges. One of the major risks to an implementation project is the desire to replicate exactly all functions previously performed in legacy systems. Working together the project manager team with the advice of the SMEs and the Team Leads can usually come to an agreed upon solution that provides the functionality necessary for users to be productive.

Other risks to the project include:

- Assisting managers of affected areas in balancing productivity while transitioning between legacy and the existing standalone applications to the new environment
- Finding the right way to involve everyone in the organization in the project
- Carefully monitoring and attending to the redirection needs
- Focusing on creating the new environment
- Defining the staffing requirements
- Developing and implementing policies to meet those needs
- Maintaining positive moral and helping the DOR/TAX staff transition from the legacy systems to the new ITMS

2. Risk Mitigation

To mitigate project risks, the project management team must develop a risk management plan as a subset of the project plan. The plan must identify and document the risks that are likely to affect the outcome of the project. The managers must also be able to evaluate and quantify each risk and assess the range of possible outcomes. In other words, the managers must be able to distinguish between high-risk problems and low-risk problems. In many cases, the risk may not warrant a response, but when the risk is significant, the managers must be able to develop a risk response plan and take the necessary actions to mitigate the risks in accordance with the risk management plan.

There are steps DOR/TAX can take during the procurement and planning stages to minimize risk. Among these are seeking a proven solution, seeking a proven vendor, seeking a proven approach and planning for risk management during the project.

a) Seeking a Proven Solution

Reviewing information technology implementations in general and tax systems in particular, the research history shows IT projects fail to meet expectations because the solution does not match the problem.

For an ITMS to qualify as “proven,” consider the following requirements:

- The solution should be in production and operating for at least two complete fiscal business cycles (typically, two years).
- The solution should be in production at multiple tax agencies of similar size, complexity, and legislative framework.
- The solution should perform the core tax administration functions, including registration, returns processing, payment processing, accounting, refunds, collections, debt management, filing and payment compliance, audit, and revenue accounting.
- The solution should offer integrated supporting functions such as division-wide communications, security, workflow, imaging, correspondence, reporting, query, data analysis, data warehouse, data mining, leads management, and taxpayer self-service.

- The solution should perform the above functions for multiple tax types, including *all* of the major taxes and *most* of the minor taxes performed by DOR/TAX.
- The solution should be upgradable, extensible through configuration, and not at the end of its technological life-cycle.

b) Seeking a Proven Vendor and Approach

To qualify a proposing vendor as "proven," consider requiring the vendor has a proven record of accomplishment on multiple successful implementations using the proposed software for integrated tax administration and using the proposed implementation methodology.

c) Managing Risk during the Project

Project risks are uncertainties or vulnerabilities that may have an adverse effect on the project. Since every project carries some element of risk, it is important to manage risk proactively and through a well defined risk management process.

The risk management process seeks to minimize the impact of unplanned incidents on the project by:

- Identifying potential risks
- Analyzing risk characteristics
- Developing risk mitigation strategies
- Continuously tracking risks and mitigation strategies until danger has passed

The project's risk management plan should include the following:

- Roles and responsibilities of the participants
- Monitoring and control
- Escalation
- Risk analysis – a typical risk management matrix:
- Identification – What is the risk?
- Trigger – What is the event (if any) that could trigger the risk?
- Timeframe – When is the project exposed to the risk?
- Probability – How likely is the risk trigger to occur?
- Impact – What is the consequence of the risk?
- Severity Matrix – How will that consequence affect the project?
- Response Planning – What can be done to mitigate the risk?
- Contingency Planning – What can be done to recover from the consequence of the risk?

I. Implementation: Factors Leading to Success

In our experience, there are certain contributing factors that can greatly influence a project's outcome. Those that are within the influence of the agency are discussed below in terms of:

- Leadership support
- Staffing support
- Logistic support
- Technology support

1. Leadership Support

Activities in this area help leaders manage the change more effectively. Leaders must set focus and commitment, and create inspiration for people to change. Given that, leadership needs to commit to specific roles, responsibilities, and actions to lead the change initiative.

The following addresses leadership alignment and actions:

- Leadership alignment that ensures the leadership team embraces and commits to the vision of change - same goal, direction, and talk.
- Leadership action that focuses on encouraging the leadership team to develop tangible action plans and execute these plans to support change.
- Leadership management that sets direction, defines culture, and establishes structures and processes

As a result, it is critical to the success of the project that key decision-makers and top leadership remain engaged in the project through its completion.

The installation of an ITMS is a significant task. Inherent in any system change of this magnitude is a myriad of reactions to those changes within DOR/TAX. As a result, it is critical to the success of the project that key decision-makers and top leadership remain engaged in the project through its completion.

Leadership must make a clear and frequent message throughout DOR/TAX that the initiative is critical to the future success of the organization. At project kick-off and subsequent milestone events, DOR/TAX executives should deliver supportive acknowledgements to their employees. It is helpful for the leadership to discourage actions that undermine the project team's efforts such as unfounded negative comments.

In order to keep moving forward and on-track, DOR/TAX must make decisions timely. Our experience has shown that there must be a process in place for effective decision-making, and there needs to be

one person involved with the project who has authority to make decisions when there is a stalemate on a critical decision point.

One of the significant contributors to project failure is uncontrolled expansion of project scope. It is important for everyone to support fully the notion that the project's primary responsibility is to get the agreed-upon components of the project completed first.

Adherence to the project timeframe is imperative. DOR/TAX should communicate this expectation to everyone on the project and within the organization. Projects can stall for a number of reasons. Once the Project Management team allows a modification of the timeline, delays become inevitable. Project staff will generally respond and deliver when the leadership informs them there will be no tolerance for delays or missed milestones.

A new system provides an opportunity to adopt new best practice business processes. However, management must be open to new ideas and support the team through the change resistance that may occur. In some cases, those business practices are deeply ingrained in an agency and there can be significant resistance to change. There may even be situations where agencies have sponsored legislation because of legacy system limitations.

2. Staffing Support

It is vital that the project team has the staff it needs to operate. From experience, we have found that personnel involved in the project need to be free from their normal assignments, and that those assignments may need to be backfilled to eliminate the temptation of pulling team members off the project.

Three key factors in meeting adequate project staffing needs:

- Agency information technology staff should fully participate in the implementation
- Agency subject matter experts and users should participate at levels necessary to meet project deliverables and commitments
- Appropriate staff should be available to participate in a train-the-trainer training approach

Perhaps the most long lasting contribution to the success of the project for the organization to make is often the most painful. If you assign someone to the team and it hurts to release them, then you have usually selected the right person. Consider this an investment in your agency's future.

3. Logistic Support

Be prepared to provide accommodations for the project team with the following features:

- Office space - Ideally, the project team will have an office area that is co-located with agency staff. Although a separate workspace is acceptable, we have found that the co-location approach greatly facilitates involving business experts not otherwise assigned to the project in the discussions and decisions related to the new system.

- Worksite access - Project staff will likely require 24x7 access to the project worksite.
- Meeting space - The project team will need frequent access to meeting rooms.
- Workstations - Each project team member will need a workstation and connectivity.
- General office equipment - The project team will need the usual business office accessories.

4. Technology Support

For the most part, technology support will depend on the solution. The project team will need access to make changes to databases and application servers with the proper security to implement the ITMS solution and perform configuration as necessary. Local area network access, email access, and associated hardware support are often peripheral, yet essential, to project success.

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APPENDIX A – Stakeholder Interview Participants

Steven Borrell, Executive Director, Alaska Miners Association, Inc. & Tom Healy, Rock Products Association

Randy Hoffbeck, North Slope Borough

John Boucher, Senior Economist and Jack Kreinheder, Chief Policy Analyst, Office of Management and Budget

Paul Wehe, Transportation Planner I, Alaska Department of Transportation

Susan Bell, Commissioner, Department of Commerce, Community, and Economic Development

Shellene Hutter, Biologist, Alaska Department of Fish and Game

Lisa Call, Severance Tax Senior Specialist, U.S. Financial Reporting & Accounting, Exxon Mobile

Maureen Dolphin, Supervisor, Alaska and Brian Pittman, Conoco-Philips

Paul Syring and Diane Colley, BP Exploration

Dennis Egan, State Senator (and his Aide, Jessie)

Deborah Grundmann, Chief of Staff, State Senator Charlie Huggins

Miles Baker, Chief of Staff, State Senator Bert Stedman

David Teal, Director, and Rob Carpenter, Fiscal Analyst, Legislative Finance Division

Andrew Varner, Executive Director, and Erik O'Brien, Economic Development Specialist, Southwest Alaska Municipal Conference

APPENDIX B – External Stakeholder Interview Questions

Q1: Tell me about your interaction with the Tax Division – which areas of the agency do you typically interact with?

Q2: (Share Tax Division's Mission and Vision). What is your general reaction to the Tax Division's Mission and Vision? Is it appropriate? Does it look like they're focusing on the right things? Is anything missing?

Q3: Based on your interactions with the Tax Division, are there a few words that aptly describe their general reputation?

Q4: In your opinion, is there anything the Division should be doing to improve tax administration? Are there areas that should receive increased attention and focus?

Q5: Are there additional services you would like to see the Tax Division provide to taxpayers?

Q6: Are there valuable services the Tax Division currently provides that you want to make sure they continue providing in the future?

Q 7: Is there any other feedback you would like me to share with the Tax Division?

APPENDIX C – Mission and Vision External Feedback

TAX desired contributions from external stakeholders to serve as an input for this study, and to provide validation prior to an annual review of its vision and mission statements. FAST interviewed 20 stakeholders including taxpayers, association representatives, legislators and legislative staff, state agency personnel, and a local government representative. After sharing a copy of the previous mission and vision statements, the questions posed to stakeholders were:

- What is your general reaction to TAX's mission and vision?
- Is it appropriate?
- Does it look like they're focusing on the right things?
- Is anything missing?

General Reaction and Comments

Feedback ranged from the vision and mission "look straightforward and complete" to several comments noting that the statements are "quite a blend of things" and that TAX could "tighten up their focus with fewer statements." One stakeholder observed, "A focus on fairness, efficiency, and effectiveness would seem about right." Another stakeholder put it this way:

> "They're not focused on the wrong things, but where do they place their emphasis? If they're focused on too many different things, they can't effectively focus on their central purpose which is collecting taxes to fund government services."

Mission: Collect taxes, inform stakeholders, regulate charitable gaming

Several stakeholders noted that collecting all the revenues due the state is TAX's primary purpose and is properly prominent in the mission statement.

A few interviewees had questions about the phrase "inform stakeholders." Several seemed unsure exactly what the phrase intended to communicate, "Inform them about what?" Who do they mean when they say "stakeholders?" One noted, "*Inform stakeholders* seems a little weak – it's more important to cooperate and partner than to inform." Another observed, "Being a resource to other agencies in the executive branch and to the legislature is important – it might be nice to go beyond *inform.*" Another added, "They don't say anything about playing well with others in state government and getting along well with the legislature."

Increase revenue collections and compliance

The most frequent comment throughout all the interviews was directed to the statement "increase revenue collections."

One stakeholder explained,

> "I'm not sure what the Tax Division means when they say they're trying to increase revenue collections. Shouldn't they just be trying to collect the correct amount that is due? Increasing compliance makes sense, but simply *increasing revenue collection* sounds like they're just out for money – even if taxpayers are already paying what they owe."

Another observed, "Trying to move the compliance needle closer to 100% is important. Collecting all the revenues that are due and doing it efficiently and effectively is important, too. But simply *increasing revenue* seems to communicate the wrong message." Another interviewee mentioned that accuracy is important in saying, "Collecting the right amount – no more and no less – should be part of their focus."

Others added that TAX should emphasize the concepts of simplicity and clarity:

> "It's not just about collecting money from taxpayers – the agency's focus should be making it as easy as possible to pay what you owe. It's like going to the dentist – you want the experience to be as painless as possible."

And:

> "Clarity of tax application is also important. As a taxpayer, it's hard to know what to report and providing clear instructions is part of the job."

The public has confidence in the division's integrity, efficiency, and fairness

Several stakeholders noted the importance of operating efficiently. Stakeholders specifically reminded us of the need to report the same information many times and in many different ways to satisfy TAX's various systems. One stakeholder said, "It's good they want to focus on efficiency because the Tax Division's inefficiency makes taxpayer interaction with the division inefficient."

Customers receive excellent service

Many persons interviewed commented on the importance of good customer service. One clarified,

> "It's not just about friendly service. If you have to call up five times to get the information you need, it's nice to talk to a friendly voice five times. But efficient and competent service is important, too. They should be able to provide the information you need quickly and easily."

The division maximizes the use of technology in its business processes; the division has online filing for each program it administers

Most stakeholders commented on the two vision statements addressing technology. There was concern that the statement implied using the latest technology just because it is new. "The important thing is to use technology wisely and effectively." The most frequent comment questioned the idea of *maximizing* the use of technology. One stakeholder explained:

> "It's not about arbitrarily using technology to the max – you use technology to improve customer service or increase the public's confidence in the Tax Division. Technology is a means to achieve the division's goals."

Another person also highlighted this area and reiterated:

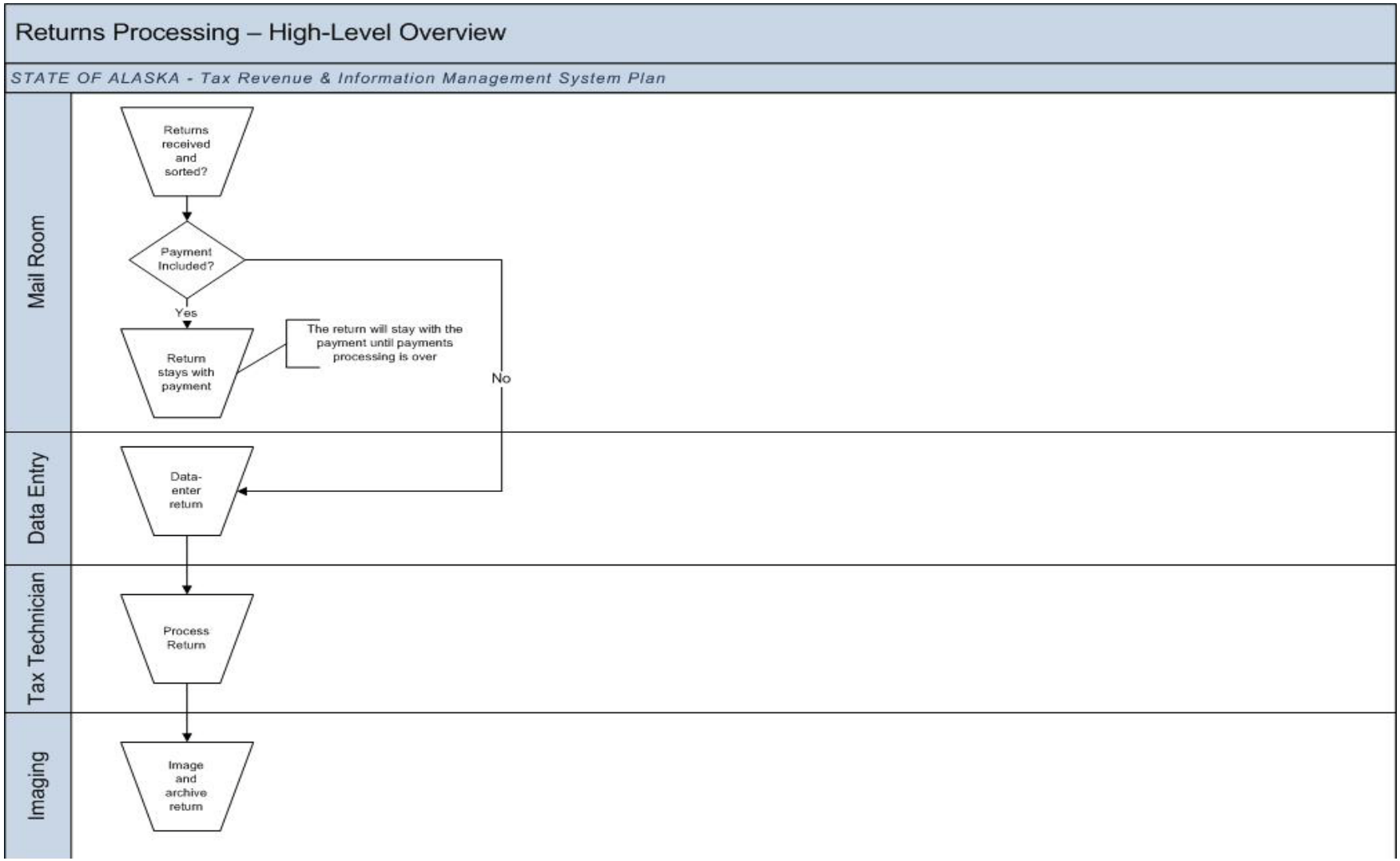
> "We don't want the Tax Division chasing all the latest technology just so they can have the new stuff. What's important to taxpayers is a stable platform, not something that is changing all the time."

Several thought the two technology statements were redundant and noted they both connected to efficiency. Several taxpayers also stated that they hoped TAX understood that online filing is more than just the ability to fill out a form on the Internet. Specifically, one person put it very simply:

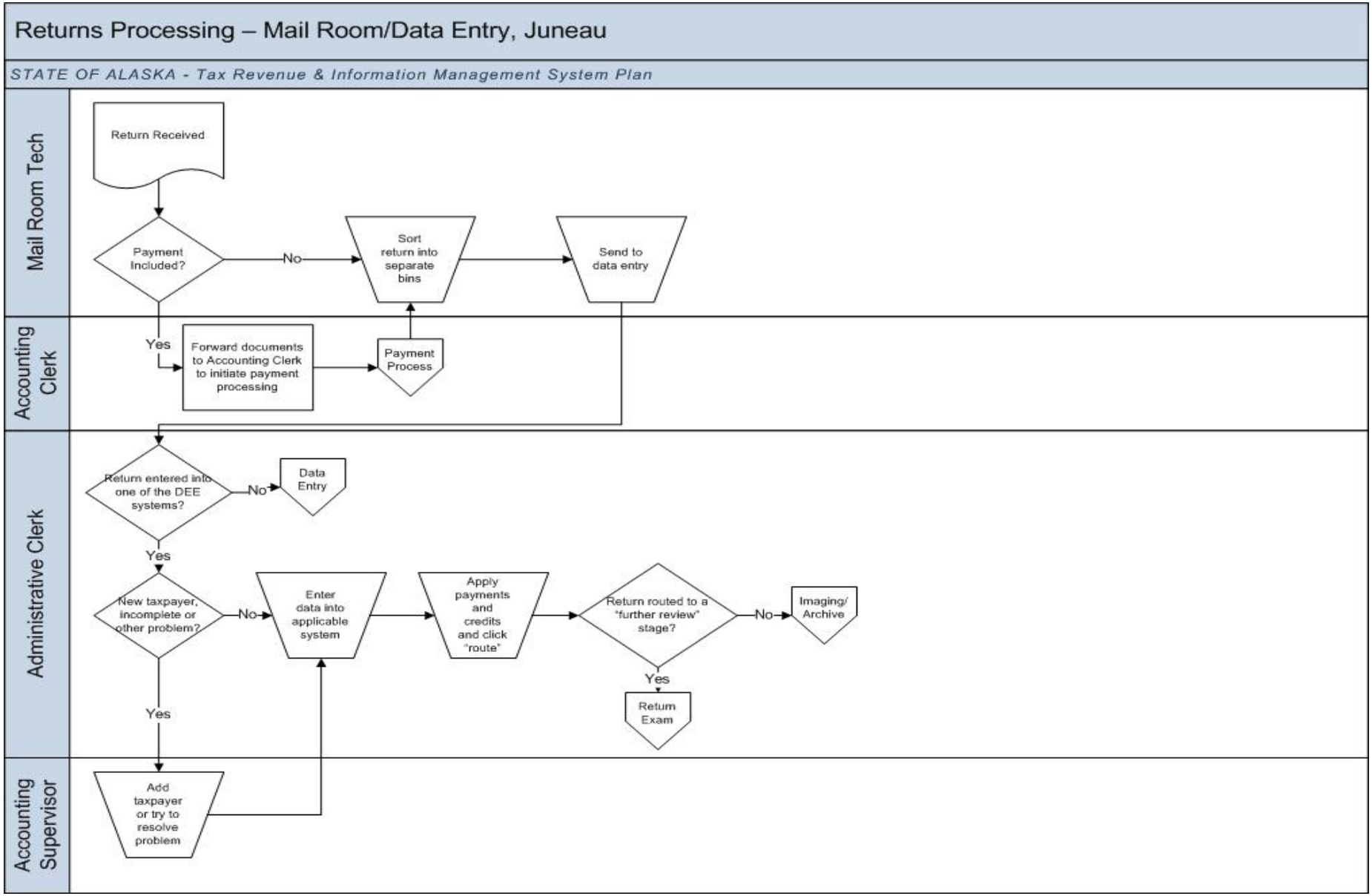
> "The Tax Division needs a better platform to ease electronic reporting. What's needed is electronic data interchange."

APPENDIX E – High-Level Diagrams

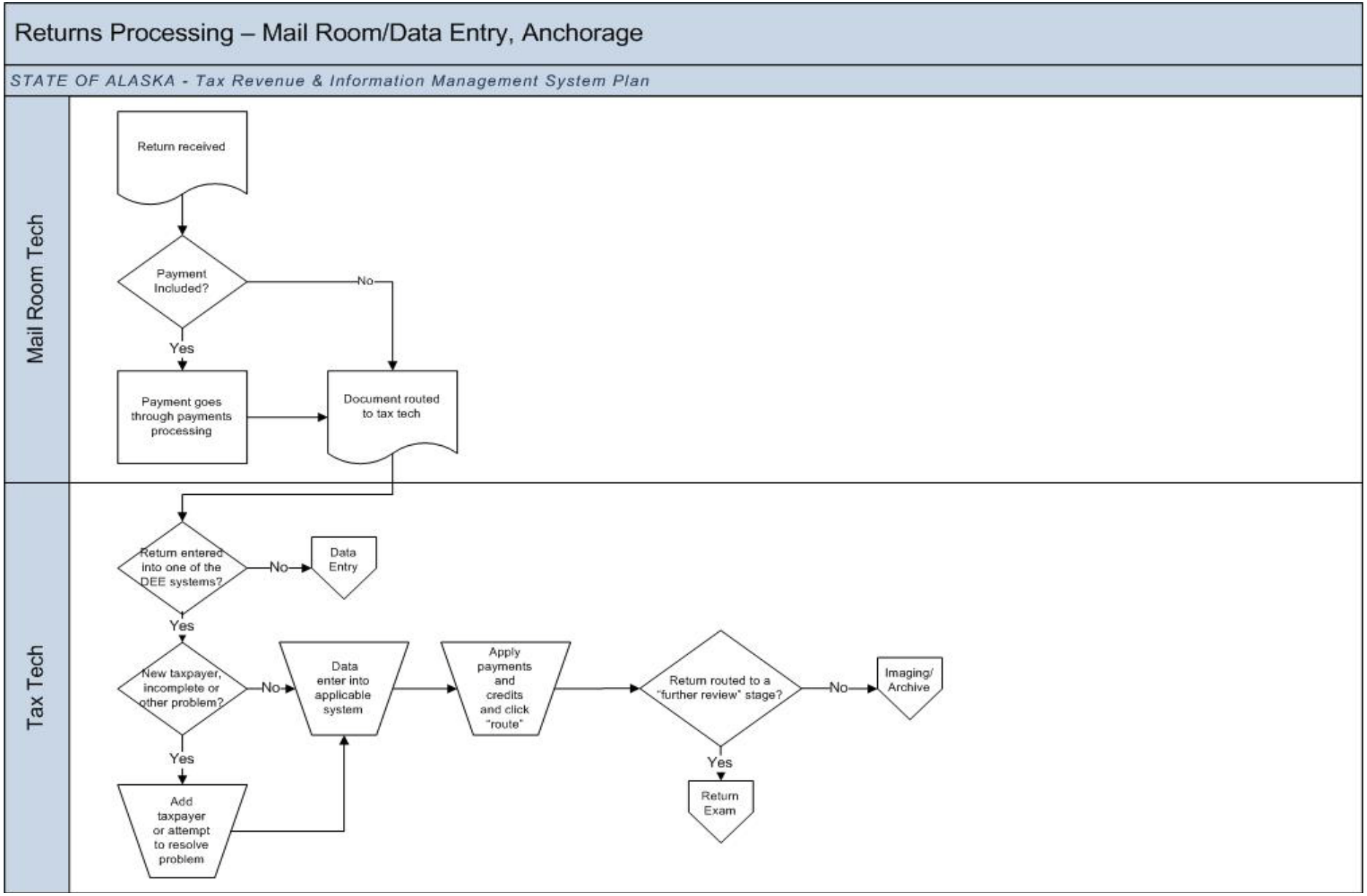
E. 1



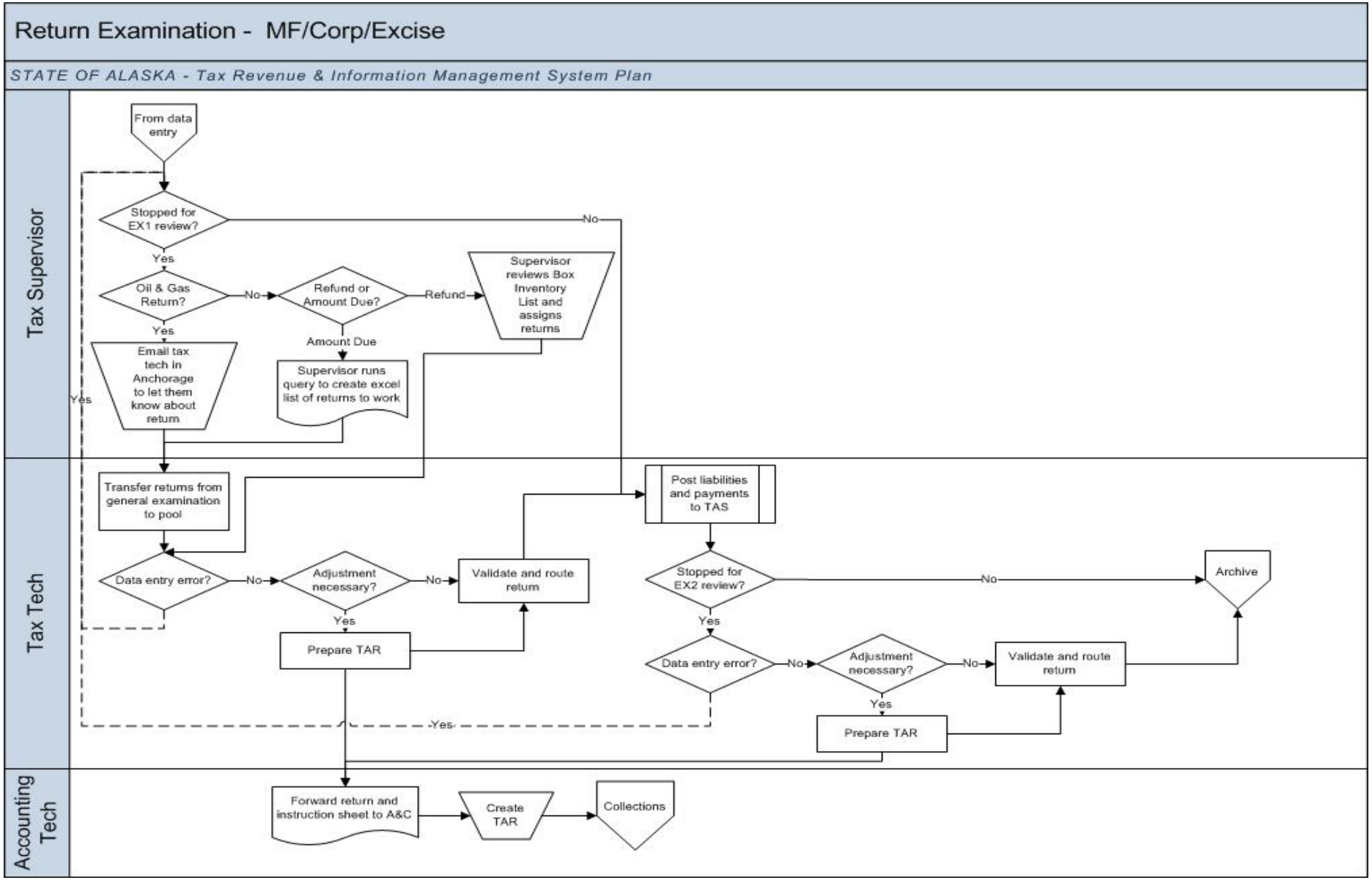
E. 2


Returns Processing – Mail Room/Data Entry, Juneau
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Mail Room Tech
Accounting Clerk
Administrative Clerk
Accounting Supervisor
Return Received
Payment Included?
No
Sort return into separate bins
Send to data entry
Yes
Forward documents to Accounting Clerk to initiate payment processing
Payment Process
Return entered into one of the DEE systems?
No
Data Entry
Yes
New taxpayer, incomplete or other problem?
No
Enter data into applicable system
Apply payments and credits and click "route"
Return routed to a "further review" stage?
No
Imaging/ Archive
Yes
Return Exam
Yes
Add taxpayer or try to resolve problem

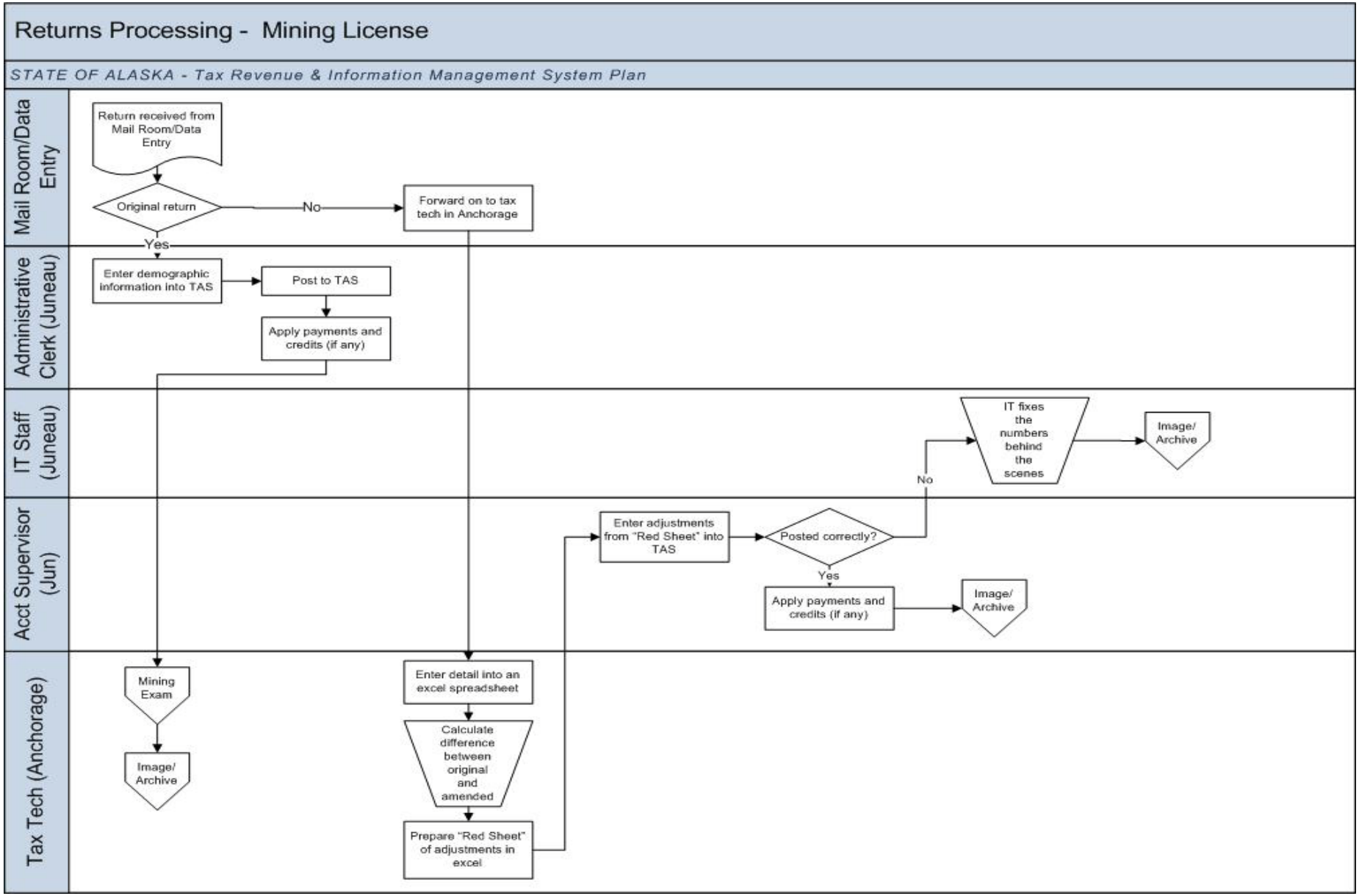
E. 3


Returns Processing – Mail Room/Data Entry, Anchorage
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Mail Room Tech
Tax Tech
Return received
Payment Included?
No
Yes
Payment goes through payments processing
Document routed to tax tech
Return entered into one of the DEE systems?
No
Data Entry
Yes
New taxpayer, incomplete or other problem?
No
Data enter into applicable system
Apply payments and credits and click "route"
Return routed to a "further review" stage?
No
Imaging/ Archive
Yes
Return Exam
Yes
Add taxpayer or attempt to resolve problem

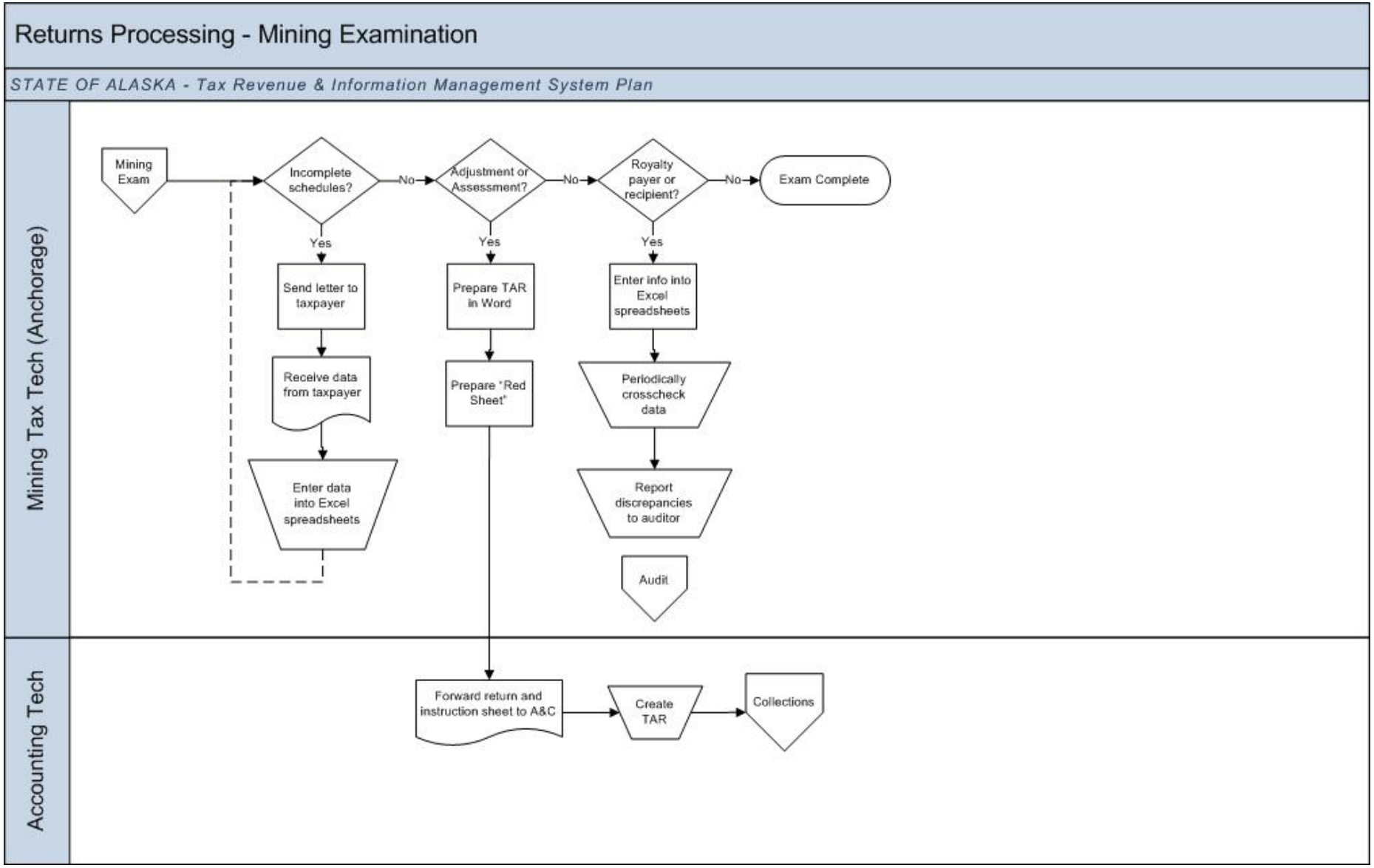
E. 4


Return Examination - MF/Corp/Excise
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Supervisor
Tax Tech
Accounting Tech
From data entry
Stopped for EX1 review?
No
Yes
Oil & Gas Return?
No
Refund or Amount Due?
Refund
Supervisor reviews Box Inventory List and assigns returns
Yes
Amount Due
Email tax tech in Anchorage to let them know about return
Supervisor runs query to create excel list of returns to work
Yes
Transfer returns from general examination to pool
Post liabilities and payments to TAS
Data entry error?
No
Adjustment necessary?
No
Validate and route return
Stopped for EX2 review?
No
Archive
Yes
Yes
Prepare TAR
Data entry error?
No
Adjustment necessary?
No
Validate and route return
Yes
Yes
Prepare TAR
Forward return and instruction sheet to A&C
Create TAR
Collections

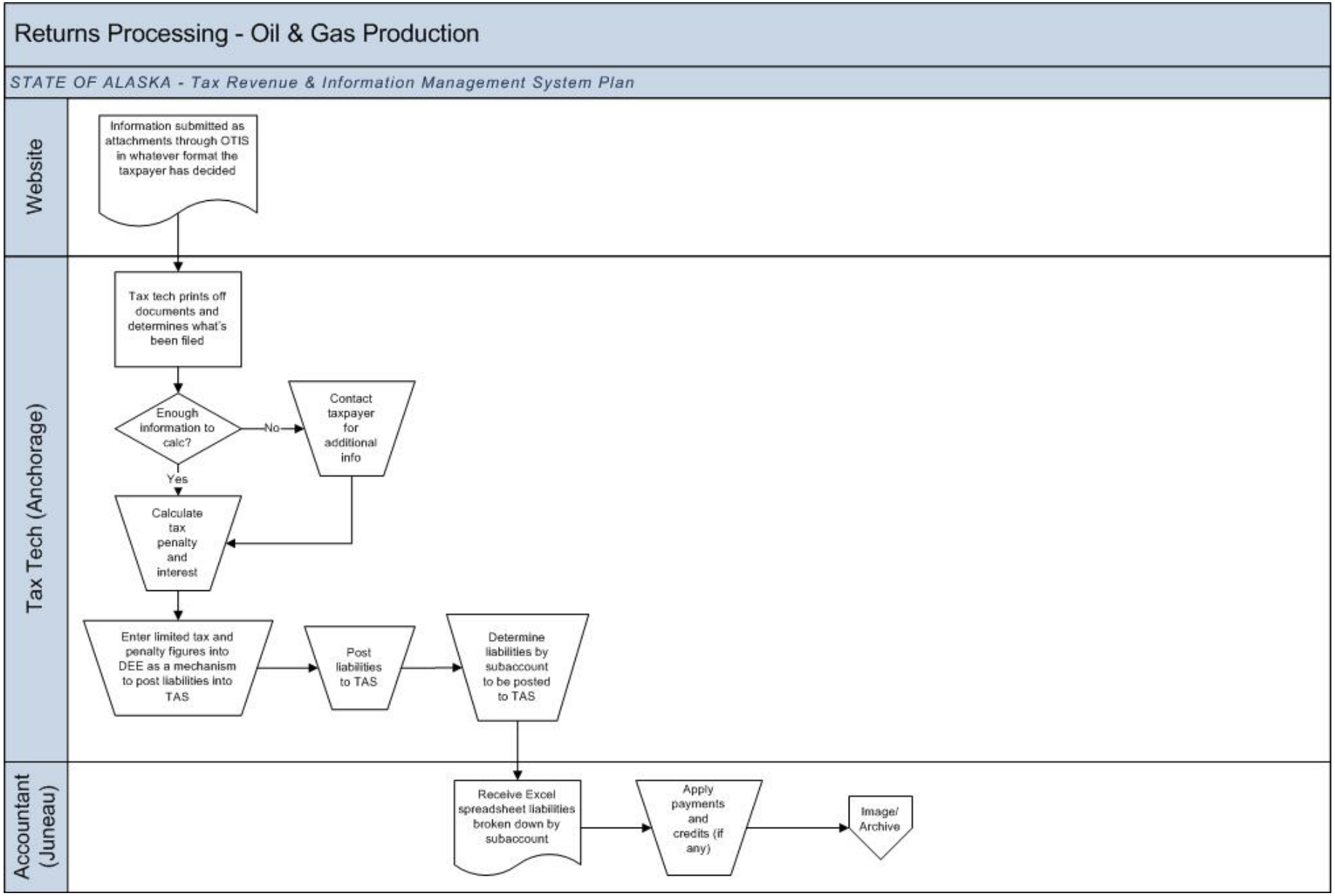
E. 5


Returns Processing - Mining License
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Mail Room/Data Entry
Administrative Clerk (Juneau)
IT Staff (Juneau)
Acct Supervisor (Jun)
Tax Tech (Anchorage)
Return received from Mail Room/Data Entry
Original return
No
Yes
Forward on to tax tech in Anchorage
Enter demographic information into TAS
Post to TAS
Apply payments and credits (if any)
IT fixes the numbers behind the scenes
Image/ Archive
No
Enter adjustments from "Red Sheet" into TAS
Posted correctly?
Yes
Apply payments and credits (if any)
Image/ Archive
Mining Exam
Image/ Archive
Enter detail into an excel spreadsheet
Calculate difference between original and amended
Prepare "Red Sheet" of adjustments in excel

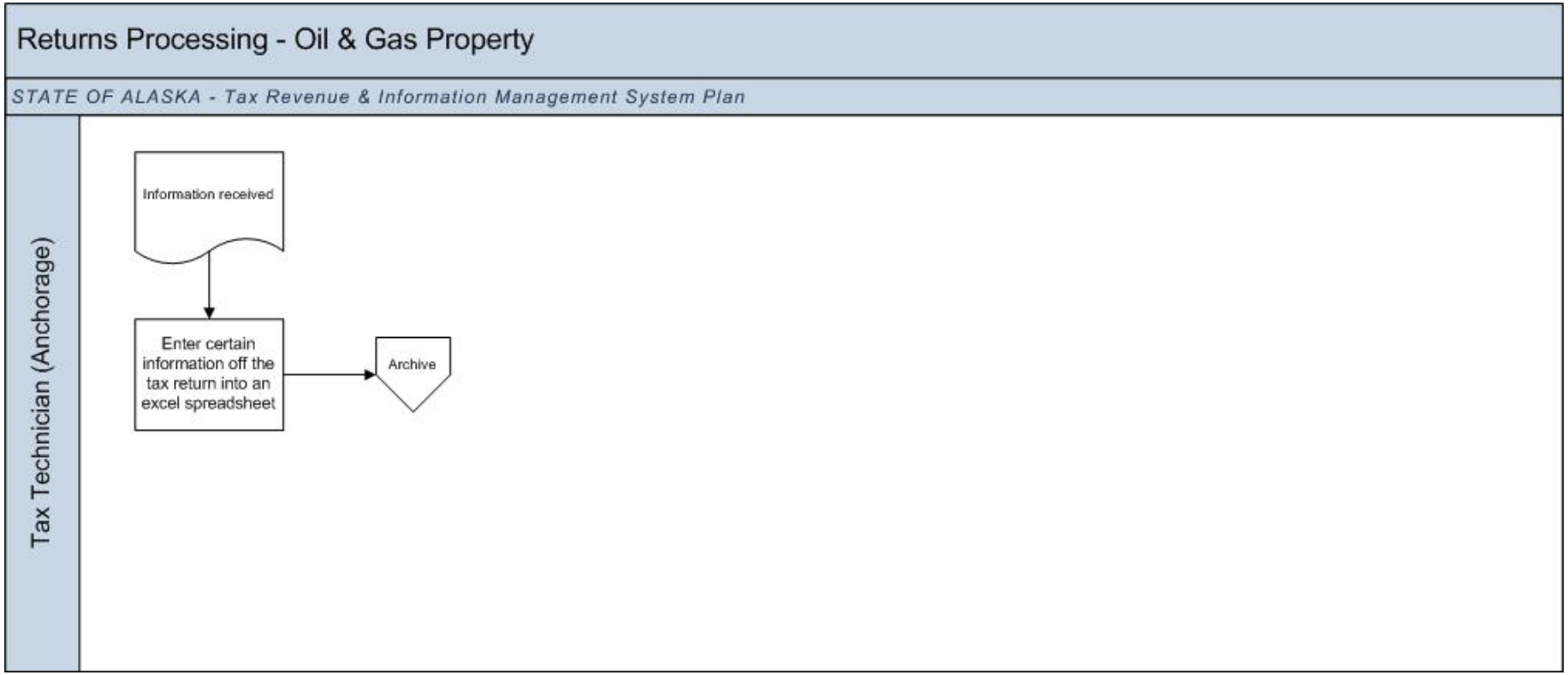
E. 6


Returns Processing - Mining Examination
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Mining Tax Tech (Anchorage)
Mining Exam
Incomplete schedules?
No
Adjustment or Assessment?
No
Royalty payer or recipient?
No
Exam Complete
Yes
Send letter to taxpayer
Receive data from taxpayer
Enter data into Excel spreadsheets
Yes
Prepare TAR in Word
Prepare "Red Sheet"
Yes
Enter info into Excel spreadsheets
Periodically crosscheck data
Report discrepancies to auditor
Audit
Accounting Tech
Forward return and instruction sheet to A&C
Create TAR
Collections

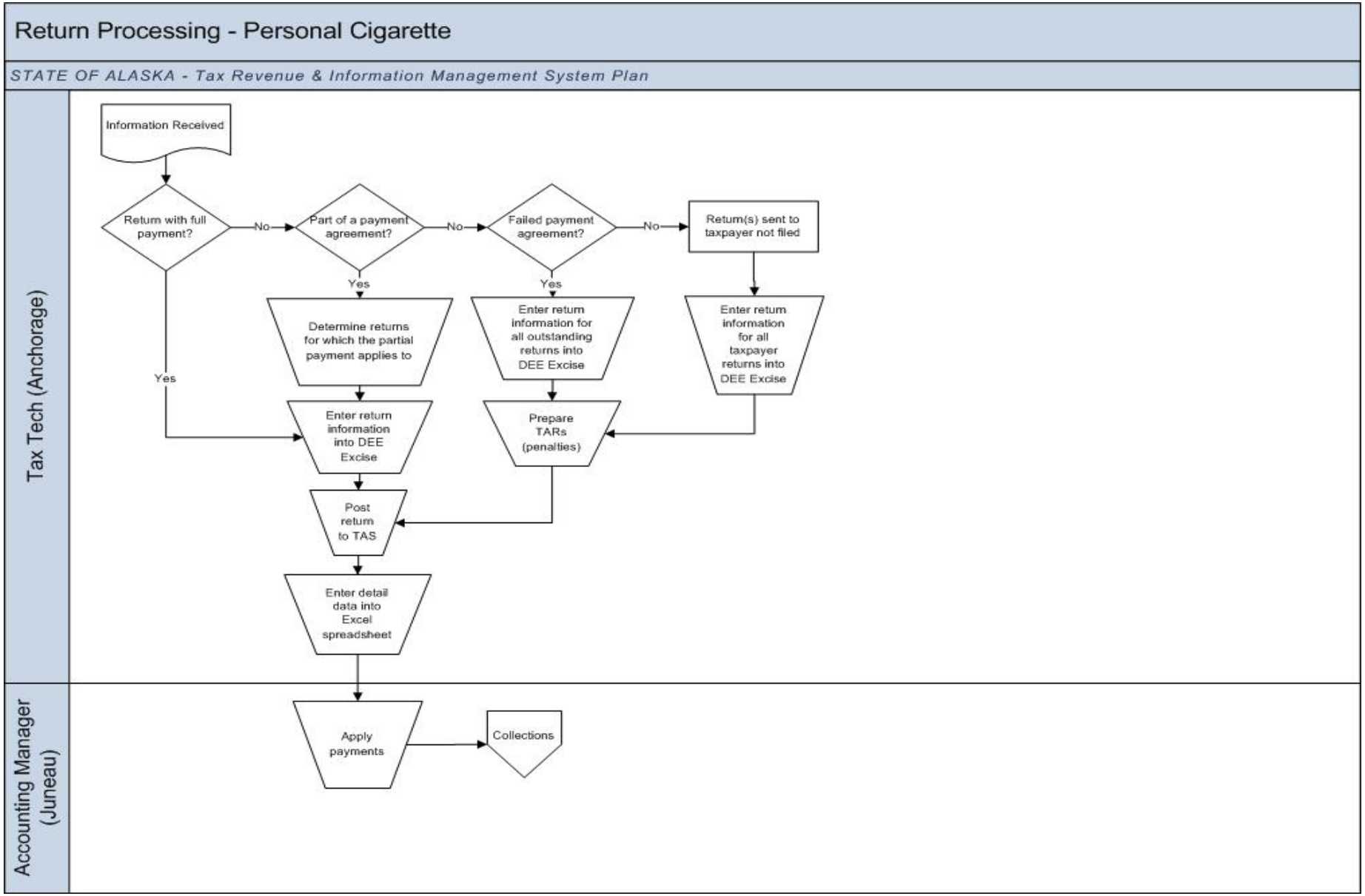
E. 7


Returns Processing - Oil & Gas Production
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Website
Information submitted as attachments through OTIS in whatever format the taxpayer has decided
Tax Tech (Anchorage)
Tax tech prints off documents and determines what's been filed
Enough information to calc?
No
Contact taxpayer for additional info
Yes
Calculate tax penalty and interest
Enter limited tax and penalty figures into DEE as a mechanism to post liabilities into TAS
Post liabilities to TAS
Determine liabilities by subaccount to be posted to TAS
Accountant (Juneau)
Receive Excel spreadsheet liabilities broken down by subaccount
Apply payments and credits (if any)
Image/ Archive

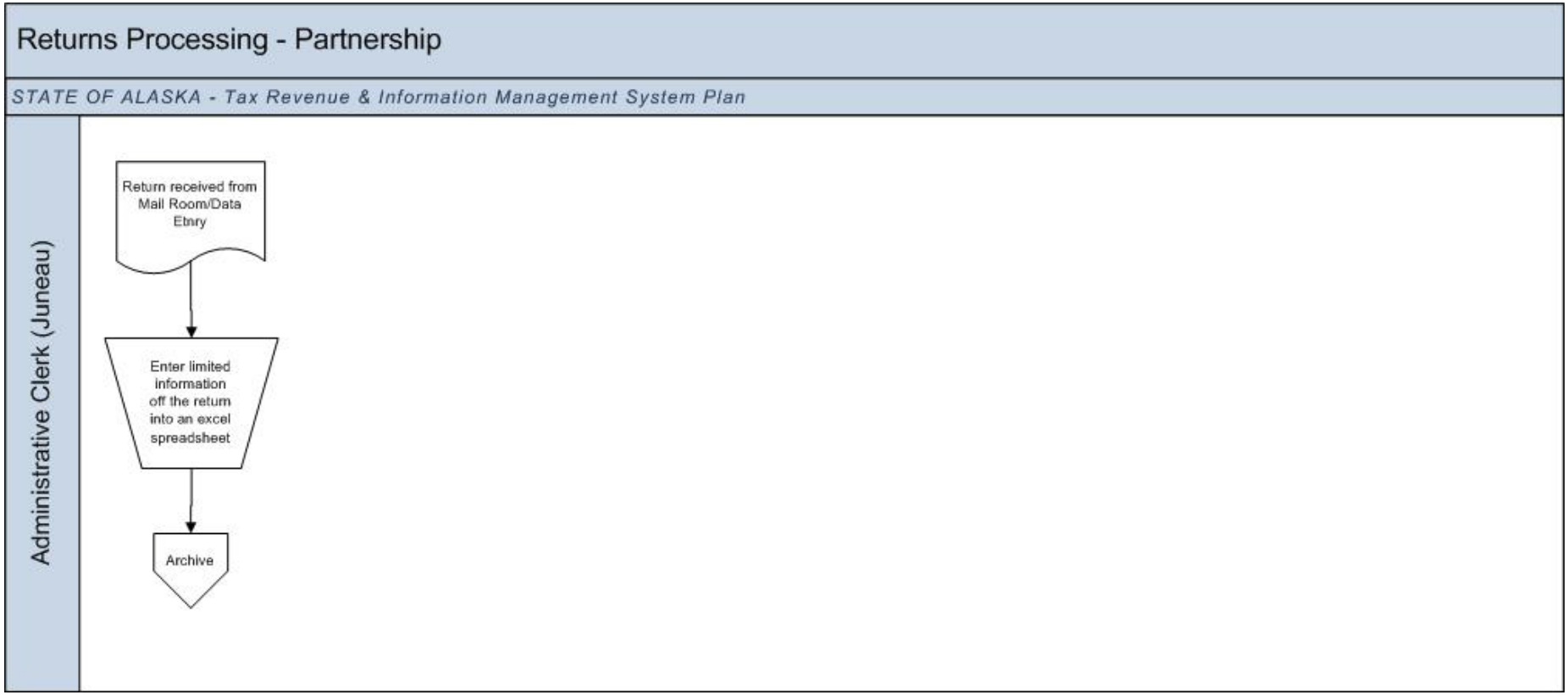
E. 8


Returns Processing - Oil & Gas Property
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Technician (Anchorage)
Information received
Enter certain information off the tax return into an excel spreadsheet
Archive

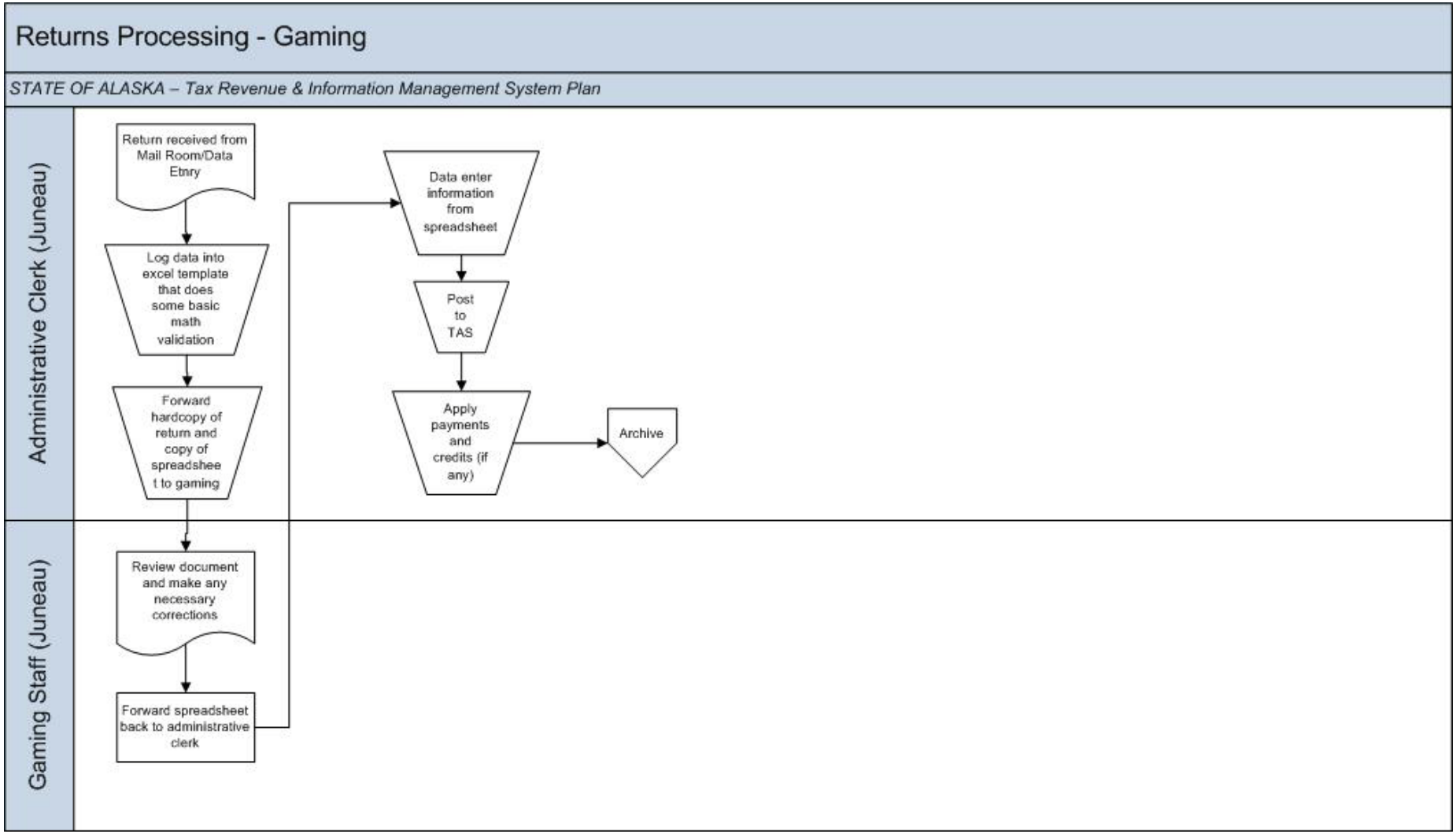
E. 9


Return Processing - Personal Cigarette
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Tech (Anchorage)
Information Received
Return with full payment?
No
Part of a payment agreement?
No
Failed payment agreement?
No
Return(s) sent to taxpayer not filed
Yes
Yes
Yes
Determine returns for which the partial payment applies to
Enter return information for all outstanding returns into DEE Excise
Enter return information for all taxpayer returns into DEE Excise
Enter return information into DEE Excise
Prepare TARs (penalties)
Post return to TAS
Enter detail data into Excel spreadsheet
Accounting Manager (Juneau)
Apply payments
Collections

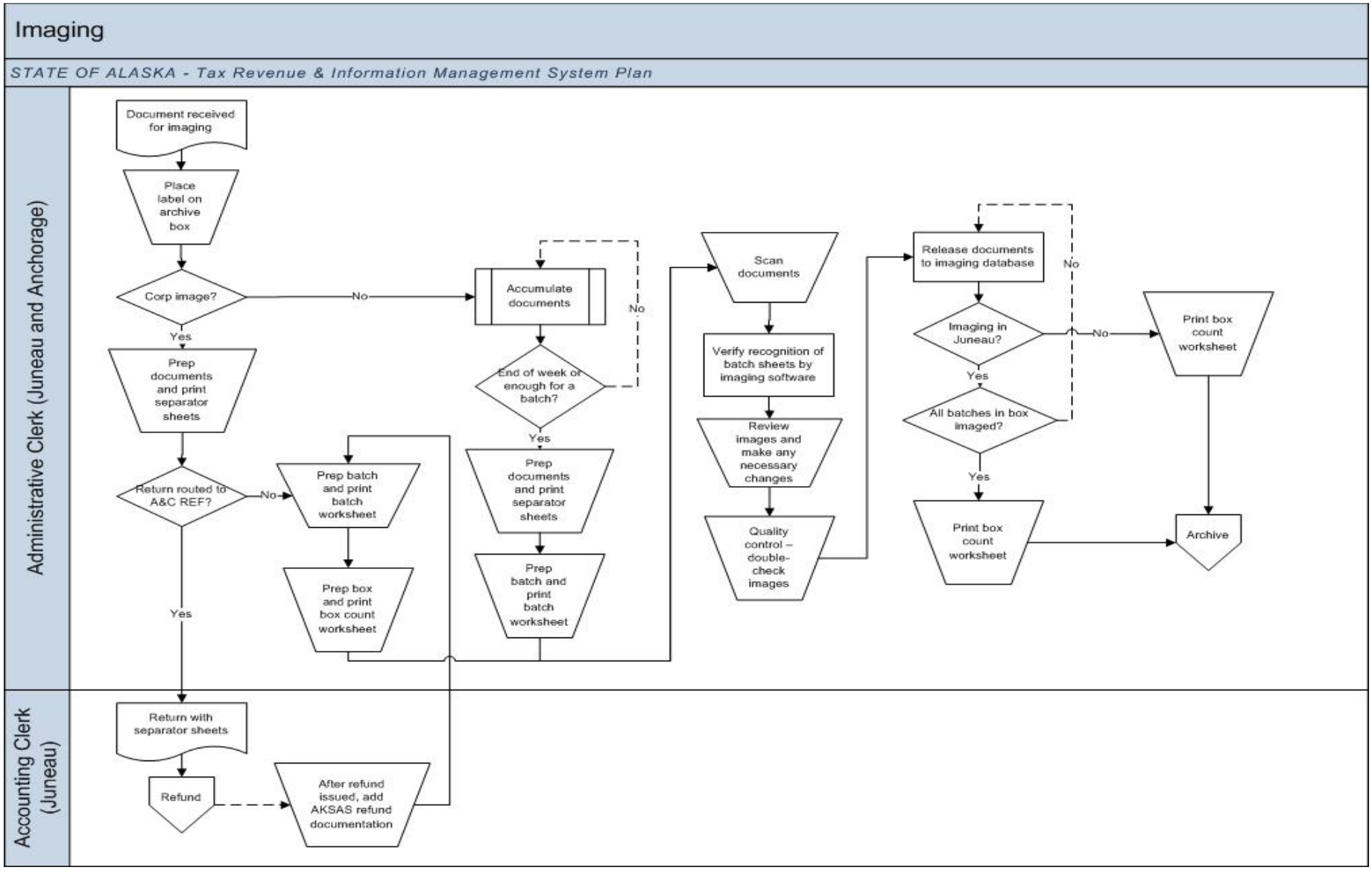
E. 10


Returns Processing - Partnership
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Administrative Clerk (Juneau)
Return received from Mail Room/Data Etnry
Enter limited information off the return into an excel spreadsheet
Archive

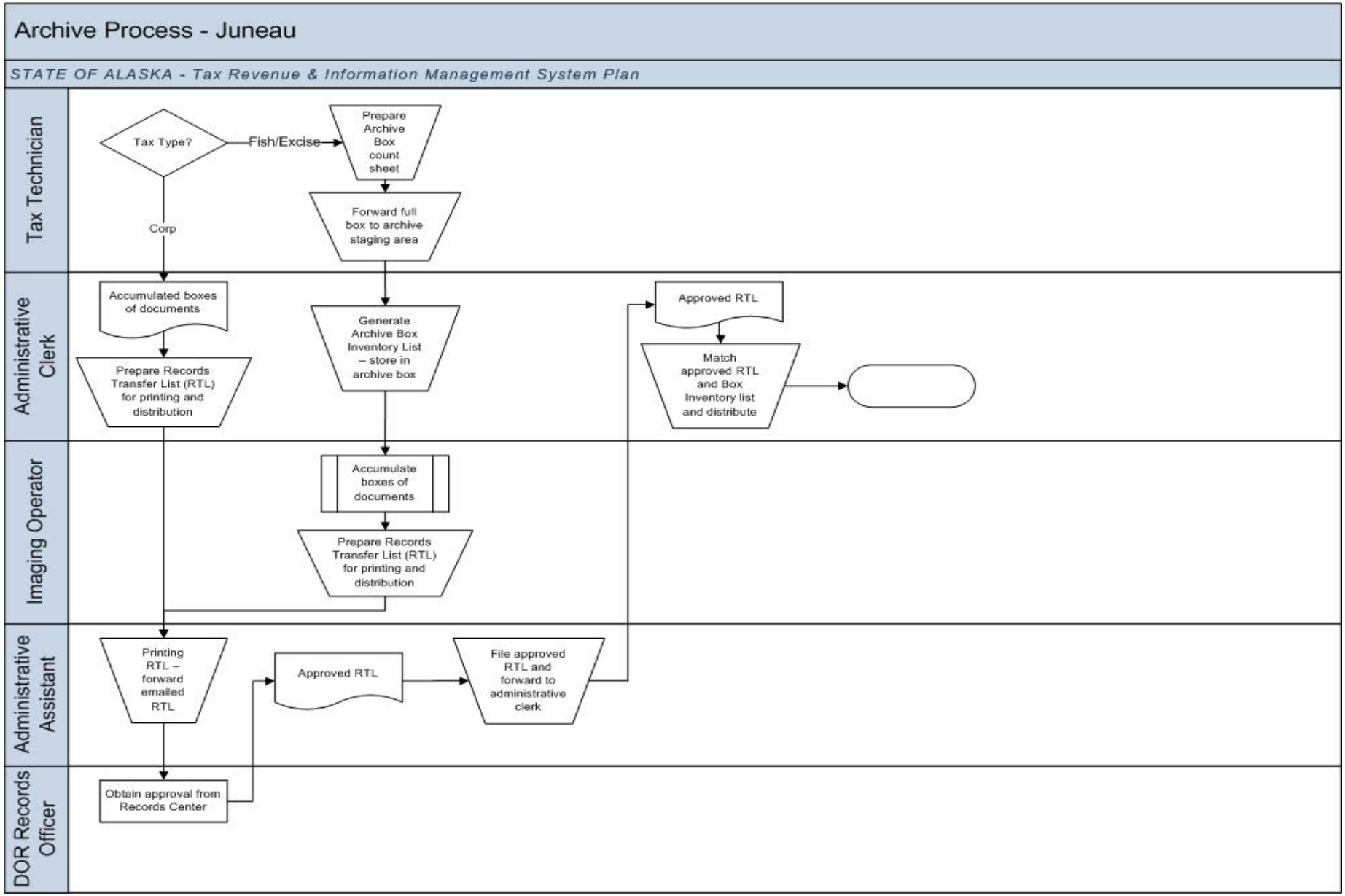
E. 11


Returns Processing - Gaming
STATE OF ALASKA – Tax Revenue & Information Management System Plan
Administrative Clerk (Juneau)
Gaming Staff (Juneau)
Return received from Mail Room/Data Etnry
Log data into excel template that does some basic math validation
Forward hardcopy of return and copy of spreadshee t to gaming
Review document and make any necessary corrections
Forward spreadsheet back to administrative clerk
Data enter information from spreadsheet
Post to TAS
Apply payments and credits (if any)
Archive

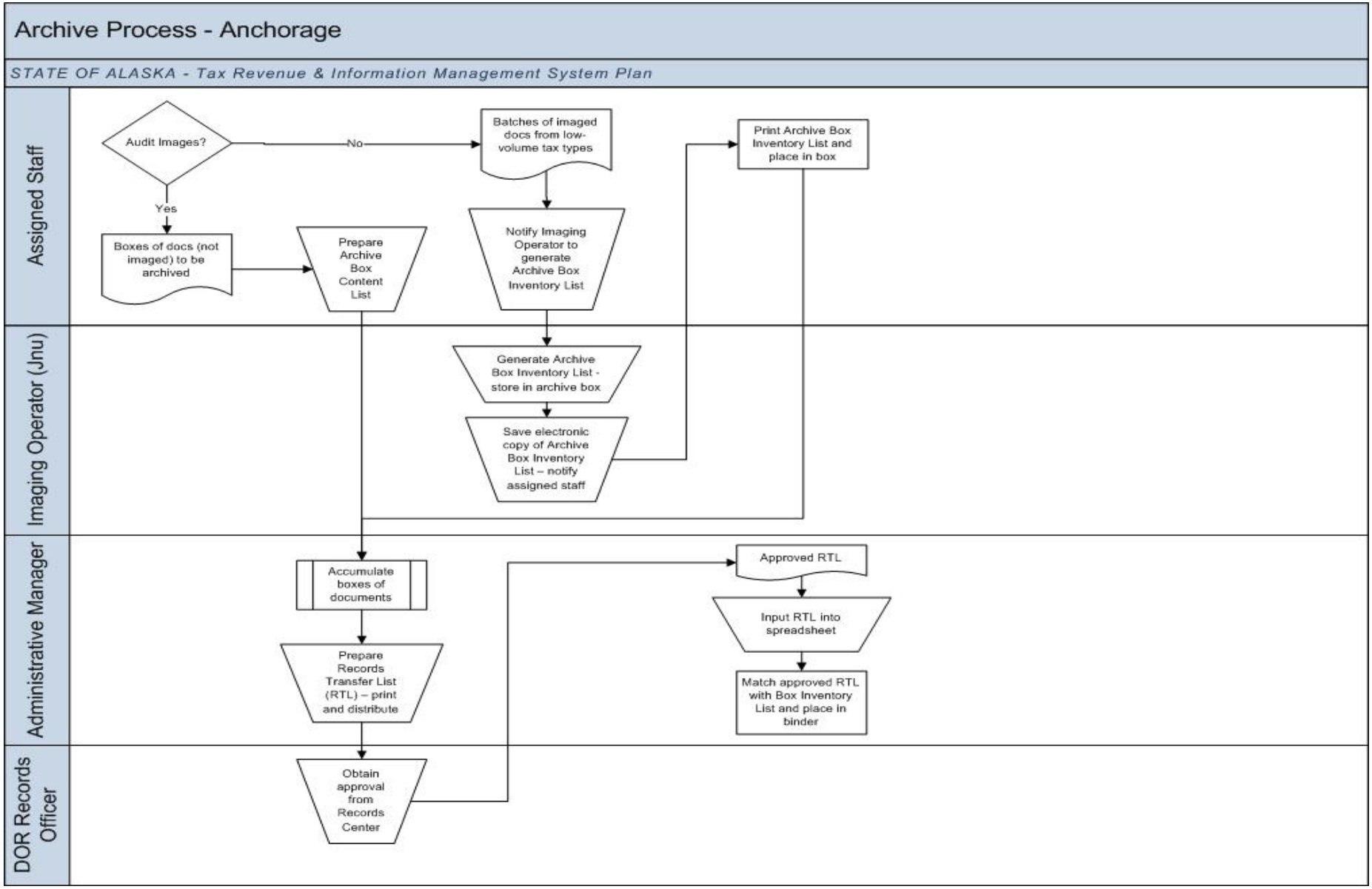
E. 12


Imaging
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Administrative Clerk (Juneau and Anchorage)
Accounting Clerk (Juneau)
Document received for imaging
Place label on archive box
Corp image?
No
Yes
Prep documents and print separator sheets
Return routed to A&C REF?
No
Yes
Prep batch and print batch worksheet
Prep box and print box count worksheet
Accumulate documents
No
End of week or enough for a batch?
Yes
Prep documents and print separator sheets
Prep batch and print batch worksheet
Scan documents
Verify recognition of batch sheets by imaging software
Review images and make any necessary changes
Quality control – double-check images
Release documents to imaging database
No
Imaging in Juneau?
No
Yes
All batches in box imaged?
Yes
Print box count worksheet
Print box count worksheet
Archive
Return with separator sheets
Refund
After refund issued, add AKSAS refund documentation

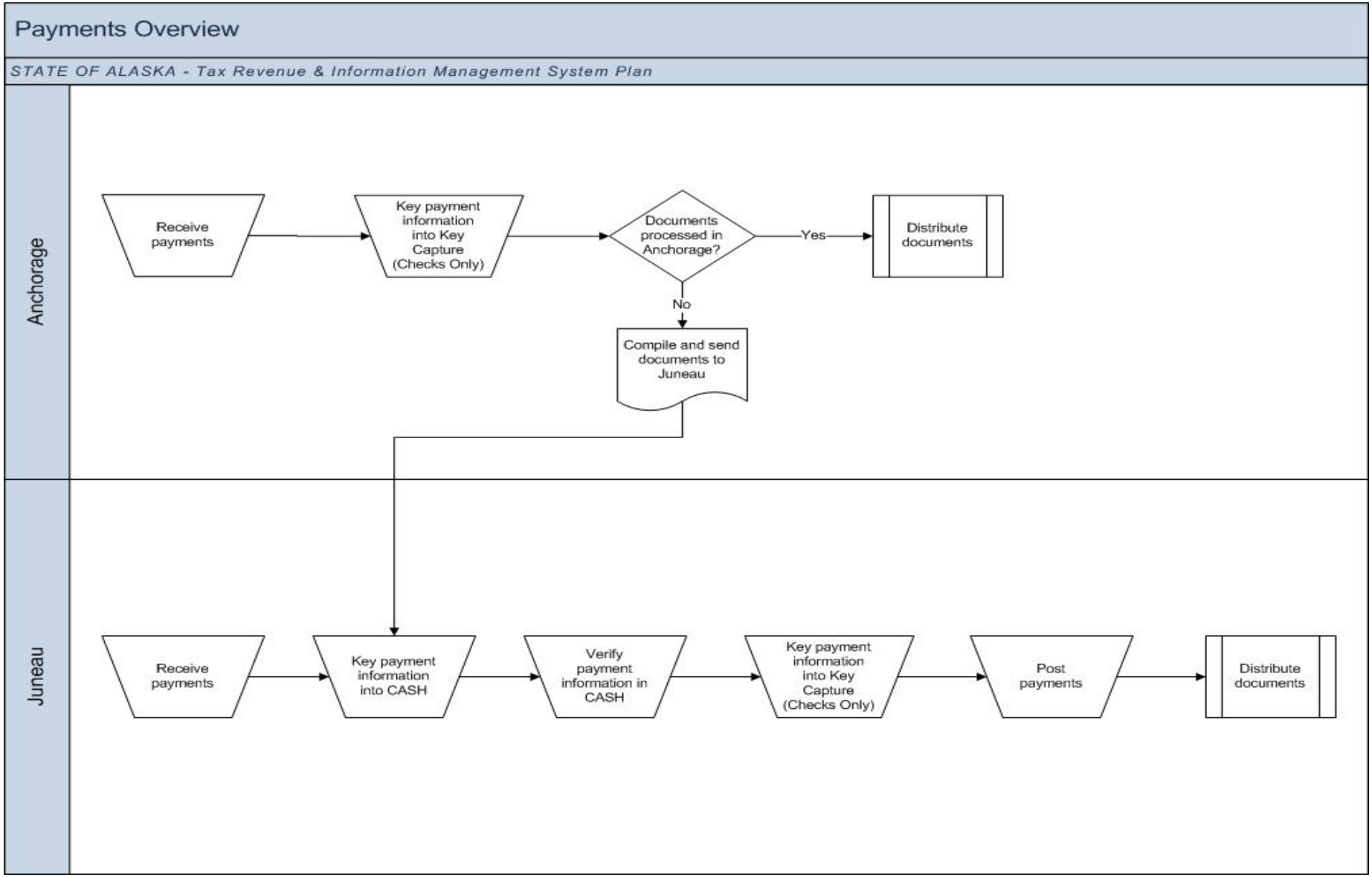
E. 13


Archive Process - Juneau
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Technician
Administrative Clerk
Imaging Operator
Administrative Assistant
DOR Records Officer
Tax Type?
Fish/Excise
Prepare Archive Box count sheet
Forward full box to archive staging area
Corp
Accumulated boxes of documents
Prepare Records Transfer List (RTL) for printing and distribution
Generate Archive Box Inventory List – store in archive box
Approved RTL
Match approved RTL and Box Inventory list and distribute
Accumulate boxes of documents
Prepare Records Transfer List (RTL) for printing and distribution
Printing RTL – forward emailed RTL
Approved RTL
File approved RTL and forward to administrative clerk
Obtain approval from Records Center

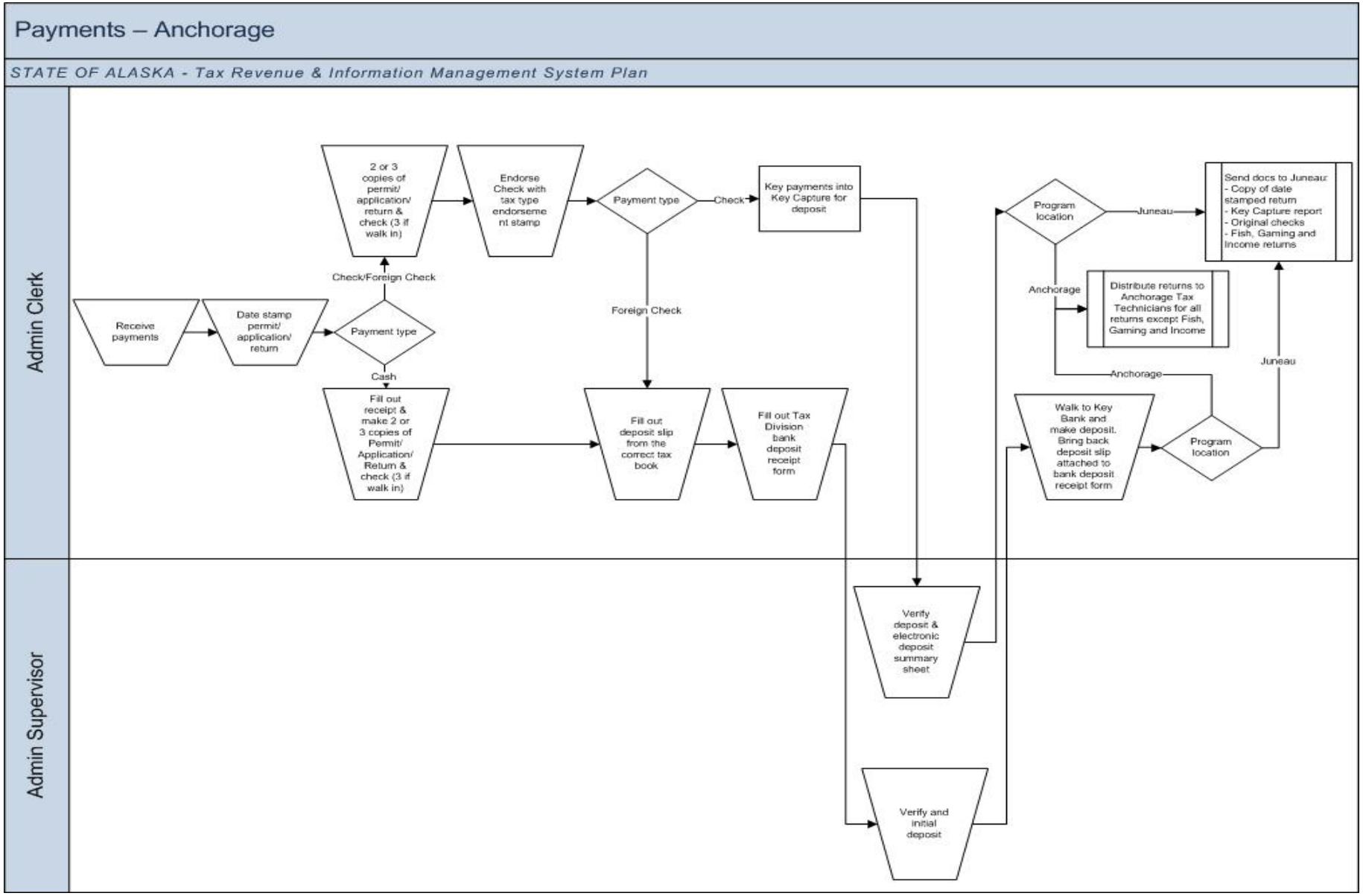
E. 14


Archive Process - Anchorage
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Assigned Staff
Imaging Operator (Jnu)
Administrative Manager
DOR Records Officer
Audit Images?
No
Yes
Batches of imaged docs from low-volume tax types
Print Archive Box Inventory List and place in box
Boxes of docs (not imaged) to be archived
Prepare Archive Box Content List
Notify Imaging Operator to generate Archive Box Inventory List
Generate Archive Box Inventory List - store in archive box
Save electronic copy of Archive Box Inventory List – notify assigned staff
Accumulate boxes of documents
Prepare Records Transfer List (RTL) – print and distribute
Approved RTL
Input RTL into spreadsheet
Match approved RTL with Box Inventory List and place in binder
Obtain approval from Records Center

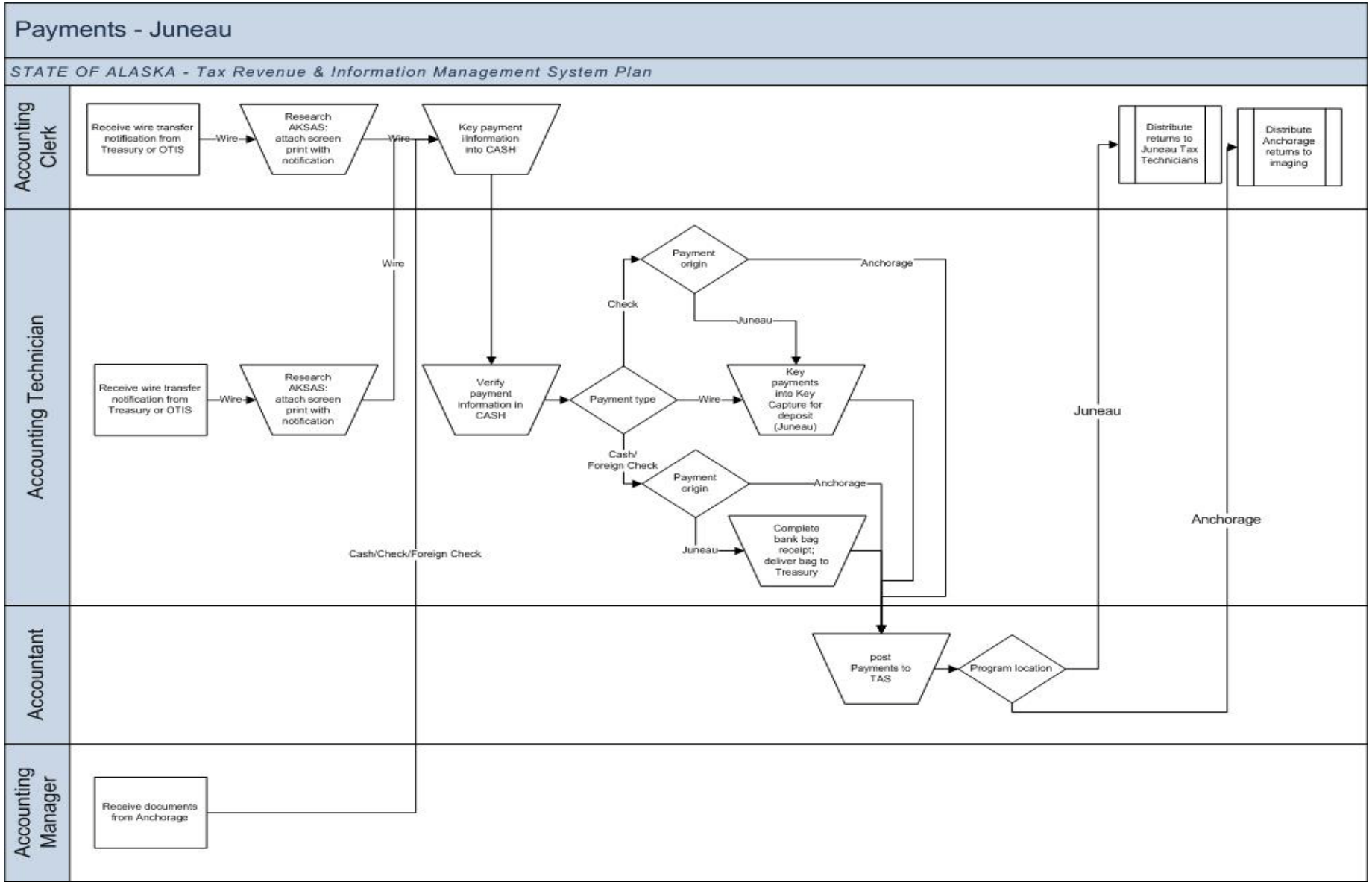
E. 15


Payments Overview
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Anchorage
Receive payments
Key payment information into Key Capture (Checks Only)
Documents processed in Anchorage?
Yes
Distribute documents
No
Compile and send documents to Juneau
Juneau
Receive payments
Key payment information into CASH
Verify payment information in CASH
Key payment information into Key Capture (Checks Only)
Post payments
Distribute documents

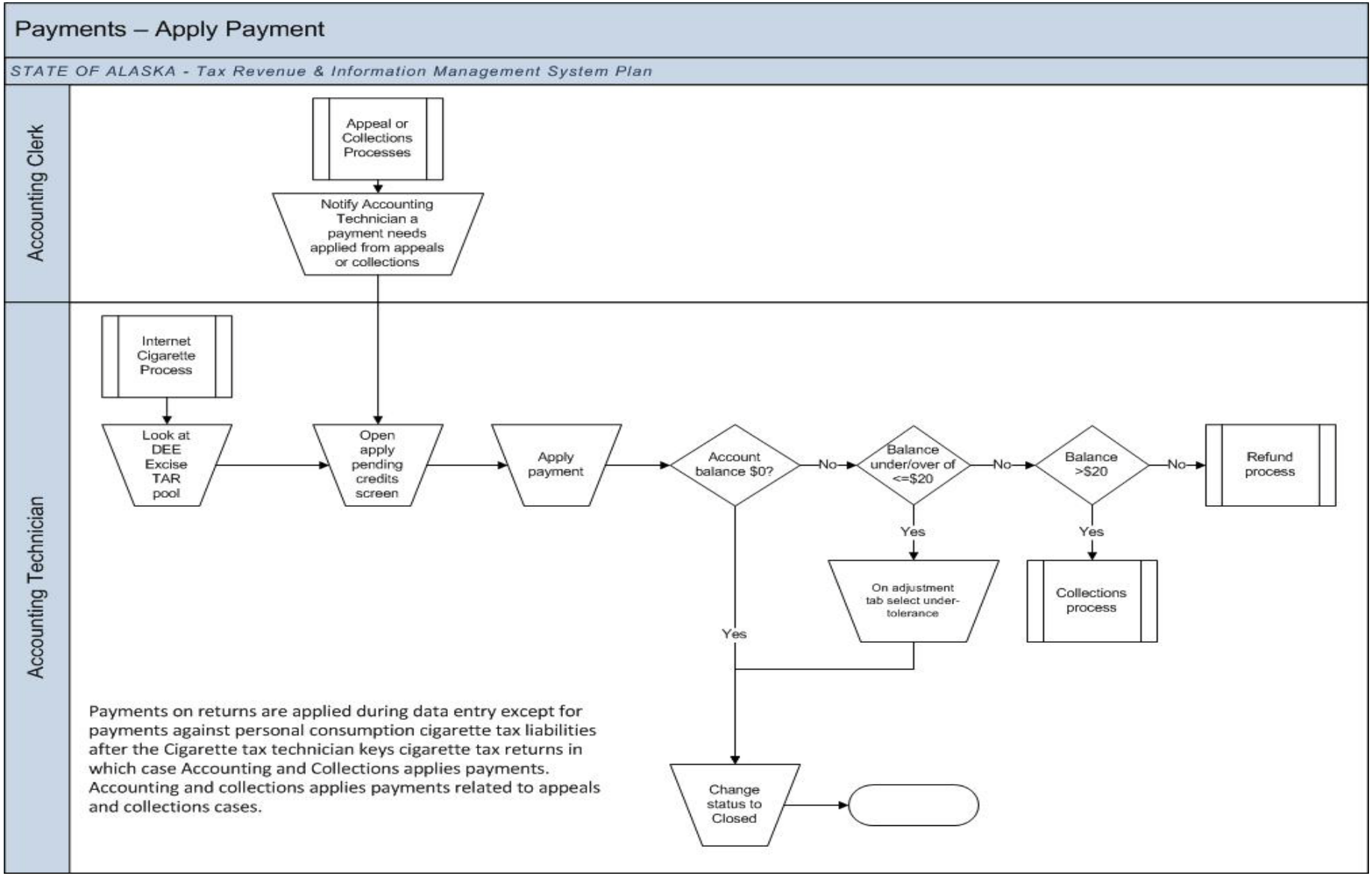
E. 16


Payments – Anchorage
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Admin Clerk
Admin Supervisor
Receive payments
Date stamp permit/ application/ return
Payment type
Check/Foreign Check
Cash
2 or 3 copies of permit/ application/ return & check (3 if walk in)
Endorse Check with tax type endorsement stamp
Payment type
Check
Key payments into Key Capture for deposit
Foreign Check
Fill out receipt & make 2 or 3 copies of Permit/ Application/ Return & check (3 if walk in)
Fill out deposit slip from the correct tax book
Fill out Tax Division bank deposit receipt form
Verify deposit & electronic deposit summary sheet
Verify and initial deposit
Program location
Juneau
Send docs to Juneau: - Copy of date stamped return - Key Capture report - Original checks - Fish, Gaming and Income returns
Anchorage
Distribute returns to Anchorage Tax Technicians for all returns except Fish, Gaming and Income
Anchorage
Juneau
Walk to Key Bank and make deposit. Bring back deposit slip attached to bank deposit receipt form
Program location

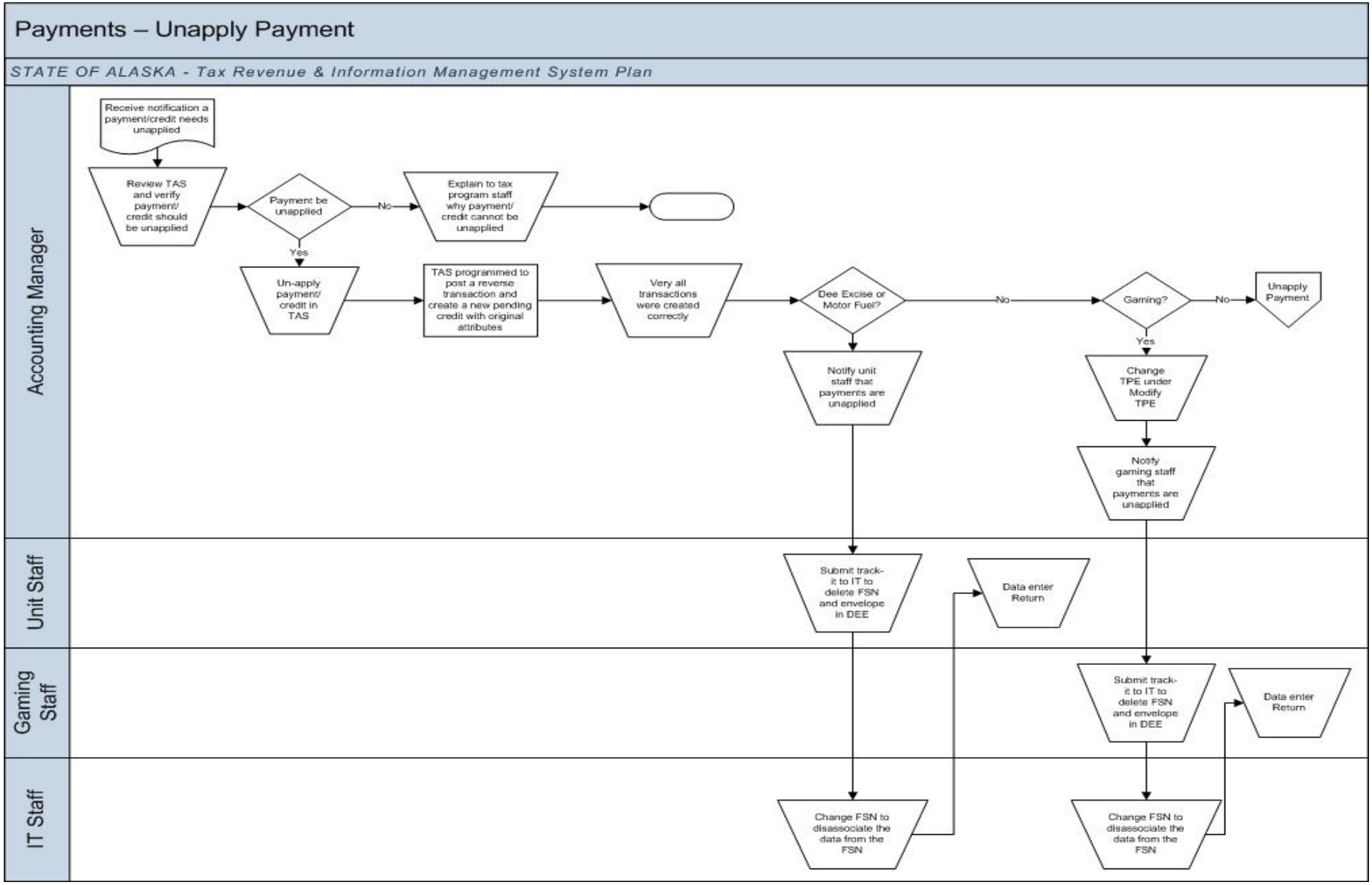
E. 17


Payments - Juneau
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Clerk
Accounting Technician
Accountant
Accounting Manager
Receive wire transfer notification from Treasury or OTIS
Wire
Research AKSAS: attach screen print with notification
Wire
Key payment information into CASH
Distribute returns to Juneau Tax Technicians
Distribute Anchorage returns to imaging
Wire
Receive wire transfer notification from Treasury or OTIS
Wire
Research AKSAS: attach screen print with notification
Verify payment information in CASH
Payment type
Wire
Key payments into Key Capture for deposit (Juneau)
Check
Payment origin
Anchorage
Juneau
Cash/ Foreign Check
Payment origin
Anchorage
Juneau
Complete bank bag receipt; deliver bag to Treasury
Cash/Check/Foreign Check
Juneau
Anchorage
post Payments to TAS
Program location
Receive documents from Anchorage

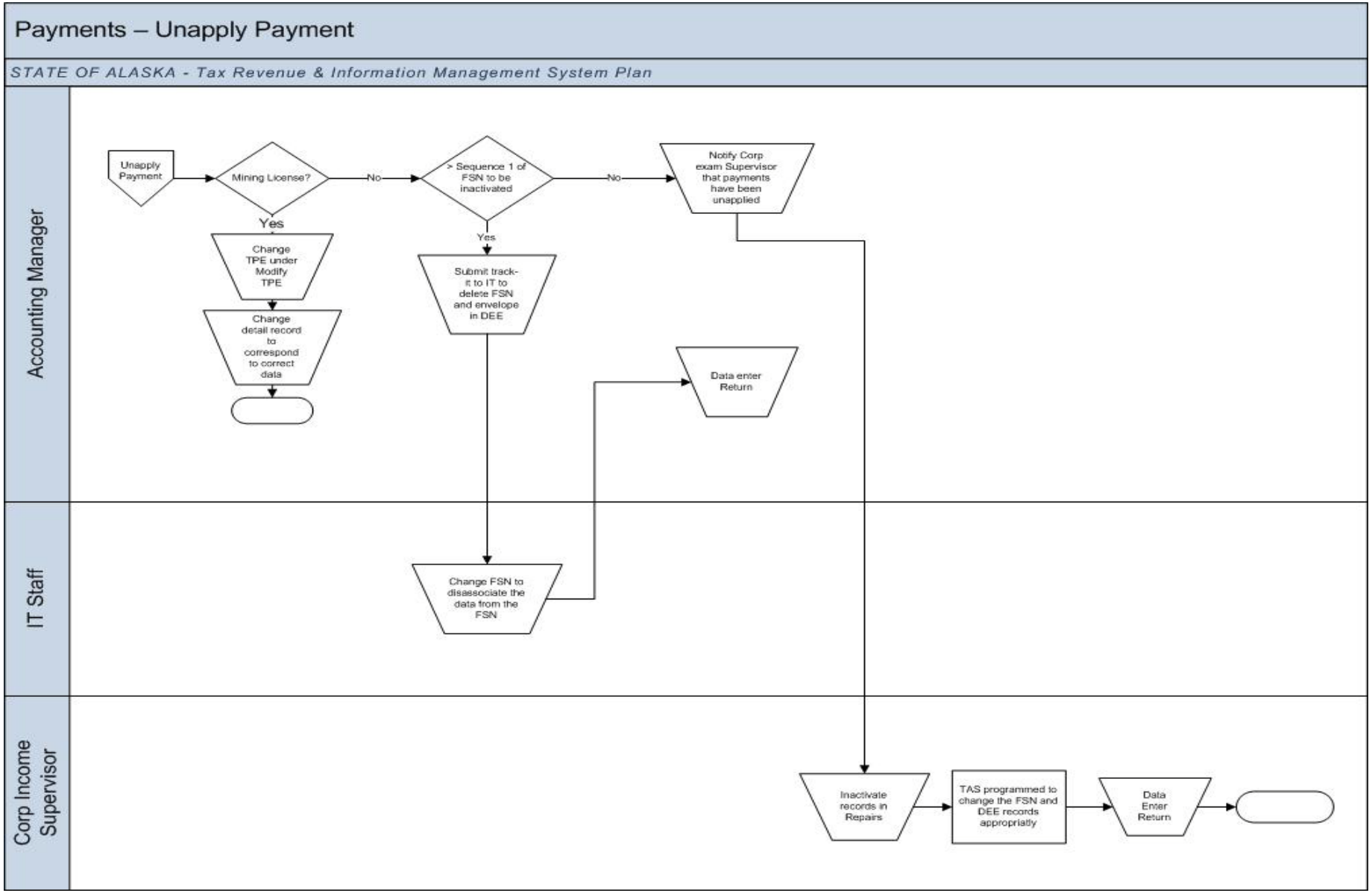
E. 18


Payments – Apply Payment
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Clerk
Accounting Technician
Appeal or Collections Processes
Notify Accounting Technician a payment needs applied from appeals or collections
Internet Cigarette Process
Look at DEE Excise TAR pool
Open apply pending credits screen
Apply payment
Account balance $0?
No
Balance under/over of <=$20
No
Balance >$20
No
Refund process
Yes
On adjustment tab select under-tolerance
Yes
Collections process
Yes
Change status to Closed
Payments on returns are applied during data entry except for payments against personal consumption cigarette tax liabilities after the Cigarette tax technician keys cigarette tax returns in which case Accounting and Collections applies payments. Accounting and collections applies payments related to appeals and collections cases.

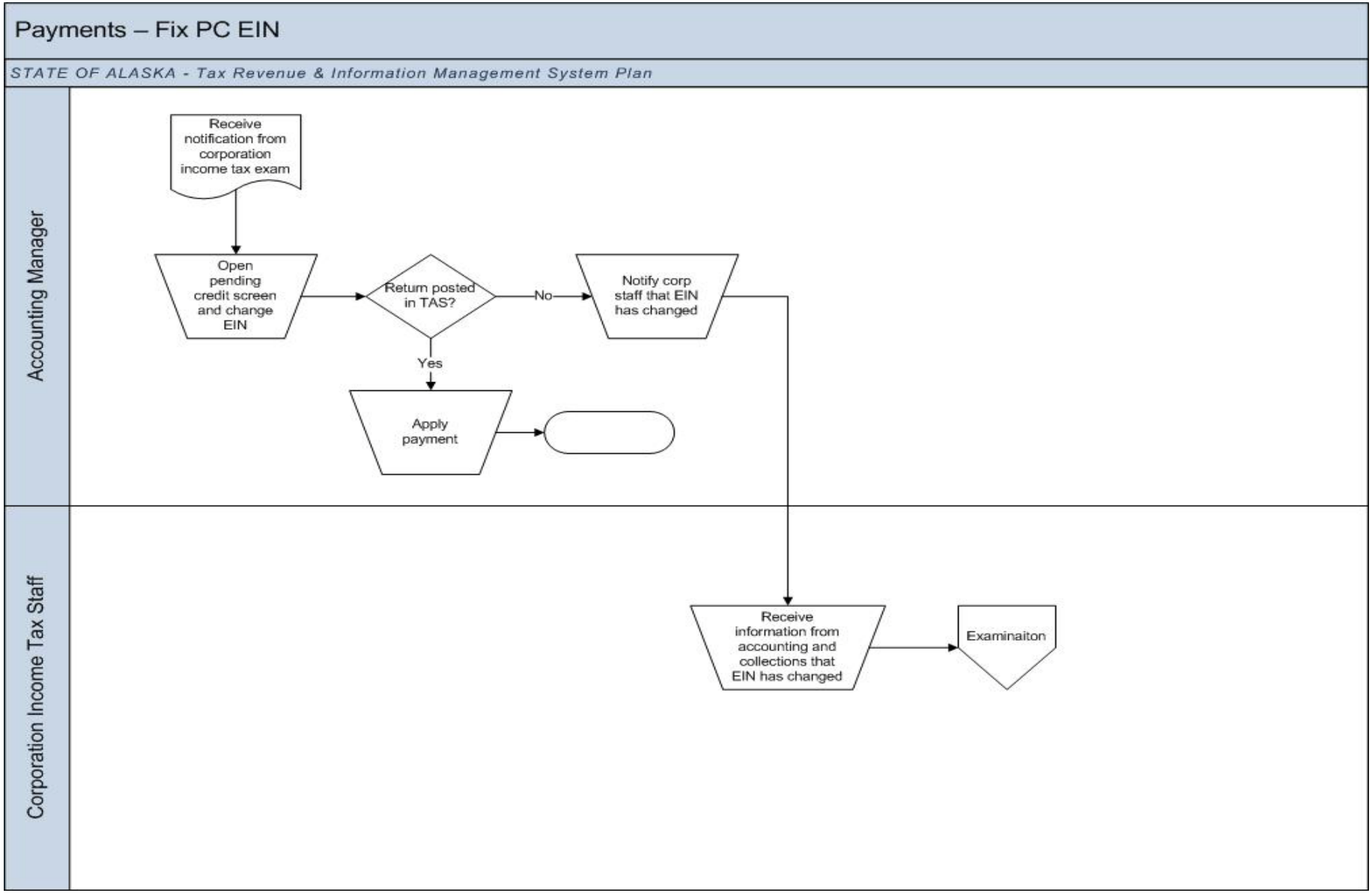
E. 19


Payments – Unapply Payment
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Manager
Unit Staff
Gaming Staff
IT Staff
Receive notification a payment/credit needs unapplied
Review TAS and verify payment/ credit should be unapplied
Payment be unapplied
No
Explain to tax program staff why payment/ credit cannot be unapplied
Yes
Un-apply payment/ credit in TAS
TAS programmed to post a reverse transaction and create a new pending credit with original attributes
Very all transactions were created correctly
Dee Excise or Motor Fuel?
No
Gaming?
No
Unapply Payment
Yes
Notify unit staff that payments are unapplied
Change TPE under Modify TPE
Notify gaming staff that payments are unapplied
Submit track-it to IT to delete FSN and envelope in DEE
Data enter Return
Submit track-it to IT to delete FSN and envelope in DEE
Data enter Return
Change FSN to disassociate the data from the FSN
Change FSN to disassociate the data from the FSN

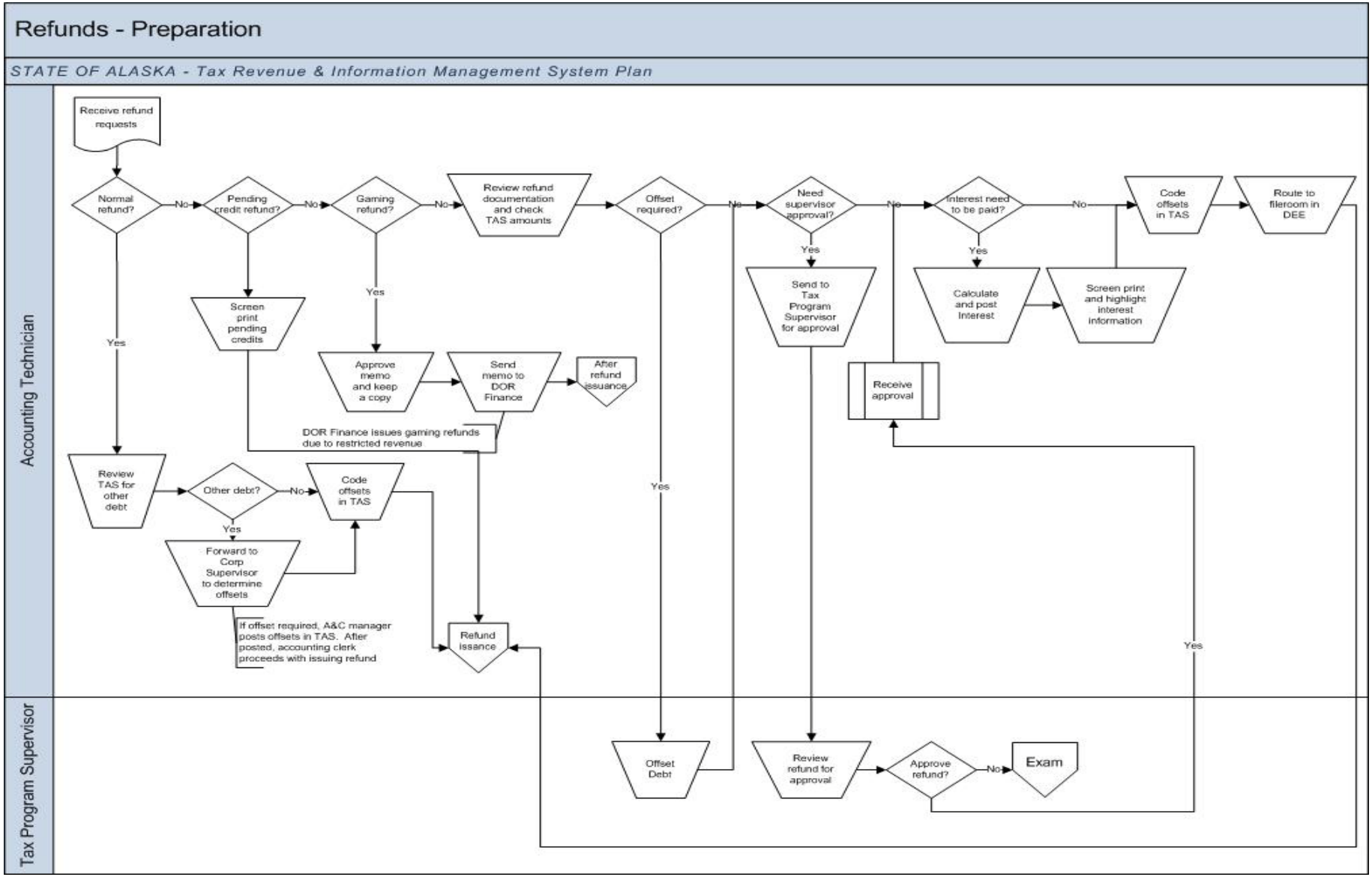
E. 20


Payments – Unapply Payment
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Manager
IT Staff
Corp Income Supervisor
Unapply Payment
Mining License?
No
> Sequence 1 of FSN to be inactivated
No
Notify Corp exam Supervisor that payments have been unapplied
Yes
Change TPE under Modify TPE
Change detail record to correspond to correct data
Yes
Submit track-it to IT to delete FSN and envelope in DEE
Data enter Return
Change FSN to disassociate the data from the FSN
Inactivate records in Repairs
TAS programmed to change the FSN and DEE records appropriatly
Data Enter Return

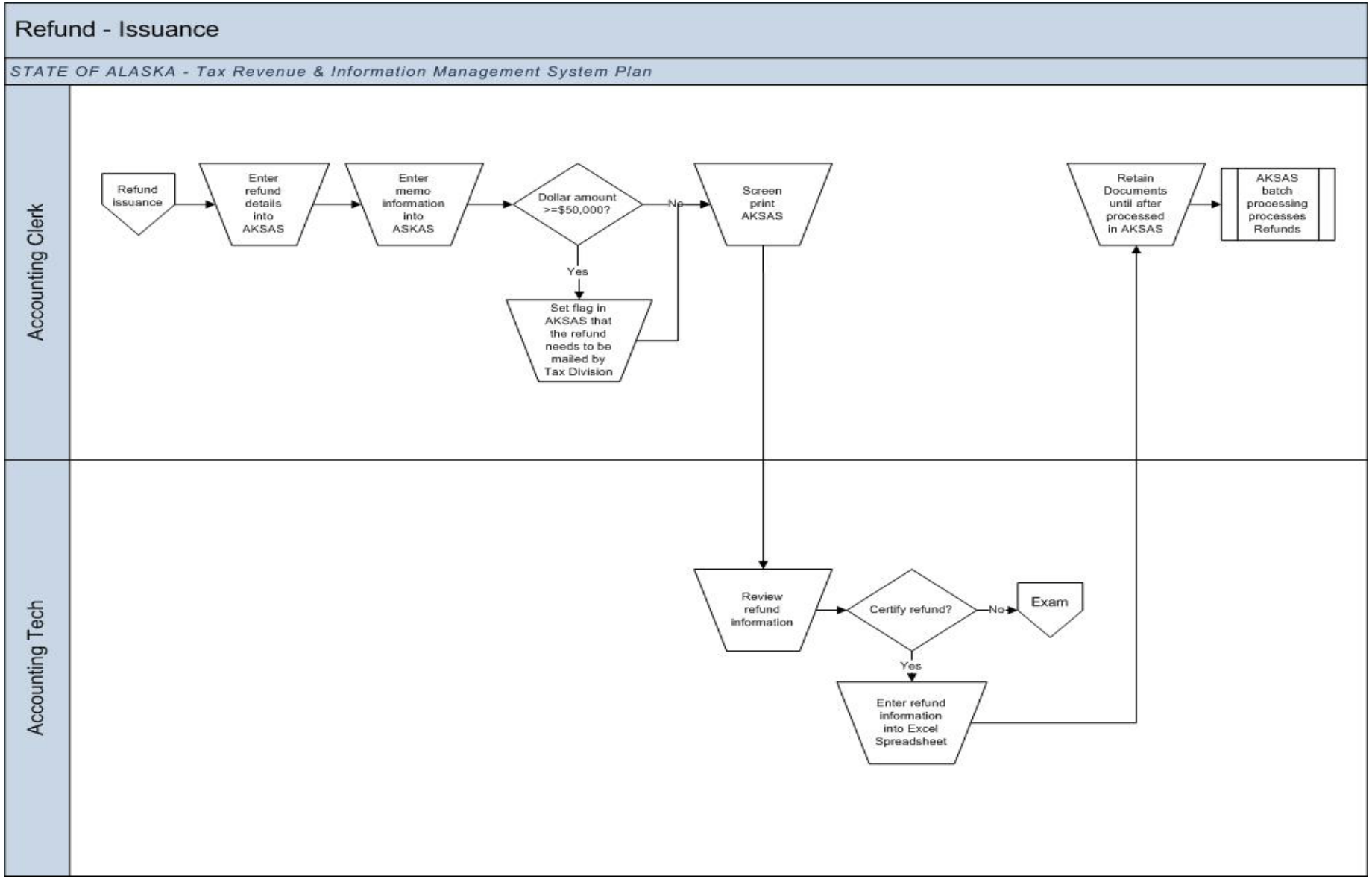
E. 21


Payments – Fix PC EIN
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Manager
Corporation Income Tax Staff
Receive notification from corporation income tax exam
Open pending credit screen and change EIN
Return posted in TAS?
No
Notify corp staff that EIN has changed
Yes
Apply payment
Receive information from accounting and collections that EIN has changed
Examinaiton

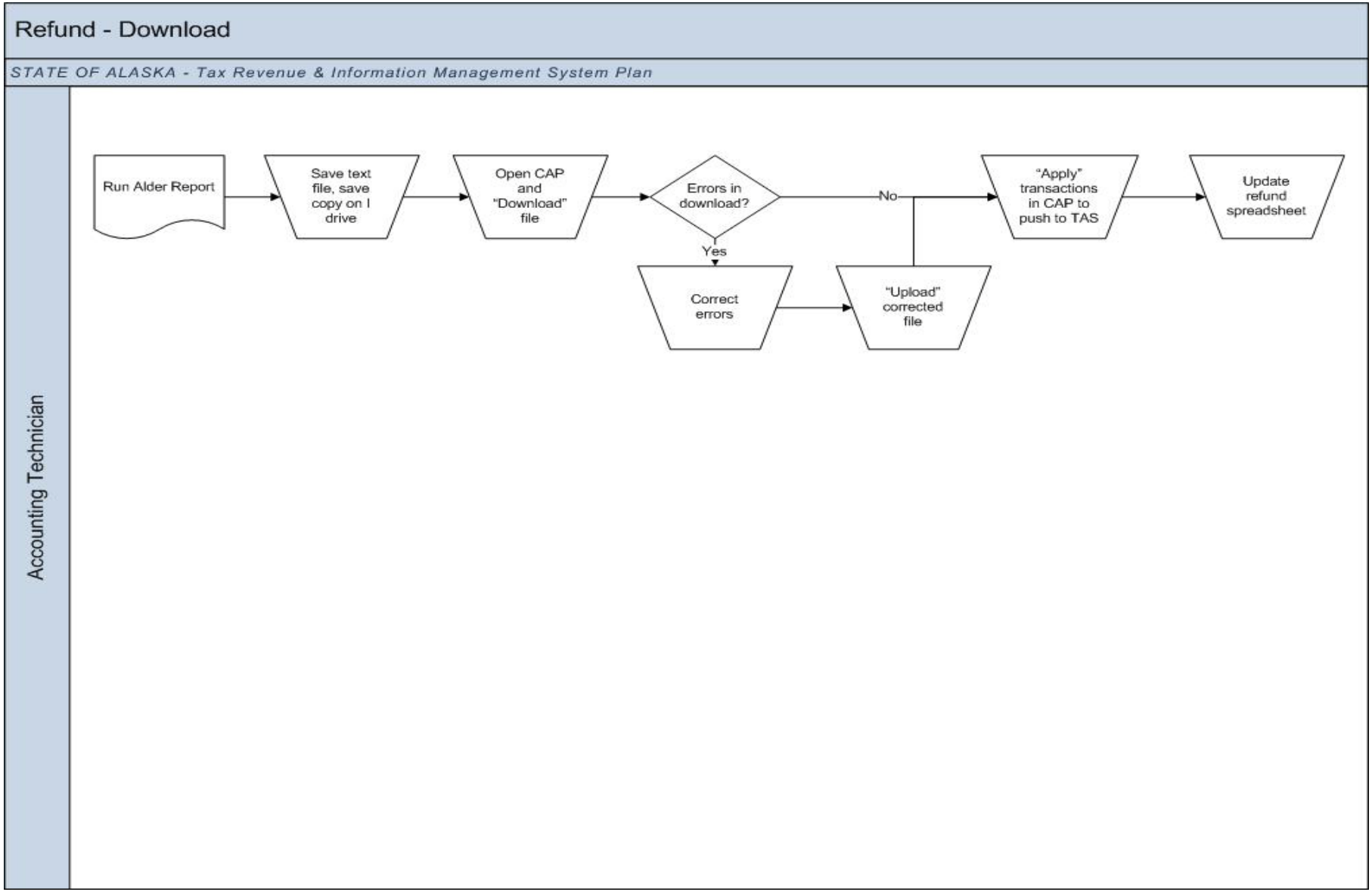
E. 22


Refunds - Preparation
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Technician
Tax Program Supervisor
Receive refund requests
Normal refund?
No
Pending credit refund?
No
Gaming refund?
No
Review refund documentation and check TAS amounts
Offset required?
No
Need supervisor approval?
No
Interest need to be paid?
No
Code offsets in TAS
Route to fileroom in DEE
Yes
Screen print pending credits
Yes
Approve memo and keep a copy
Send memo to DOR Finance
After refund issuance
DOR Finance issues gaming refunds due to restricted revenue
Yes
Send to Tax Program Supervisor for approval
Yes
Calculate and post Interest
Screen print and highlight interest information
Receive approval
Review TAS for other debt
Other debt?
No
Code offsets in TAS
Yes
Forward to Corp Supervisor to determine offsets
If offset required, A&C manager posts offsets in TAS. After posted, accounting clerk proceeds with issuing refund
Refund issance
Yes
Yes
Offset Debt
Review refund for approval
Approve refund?
No
Exam

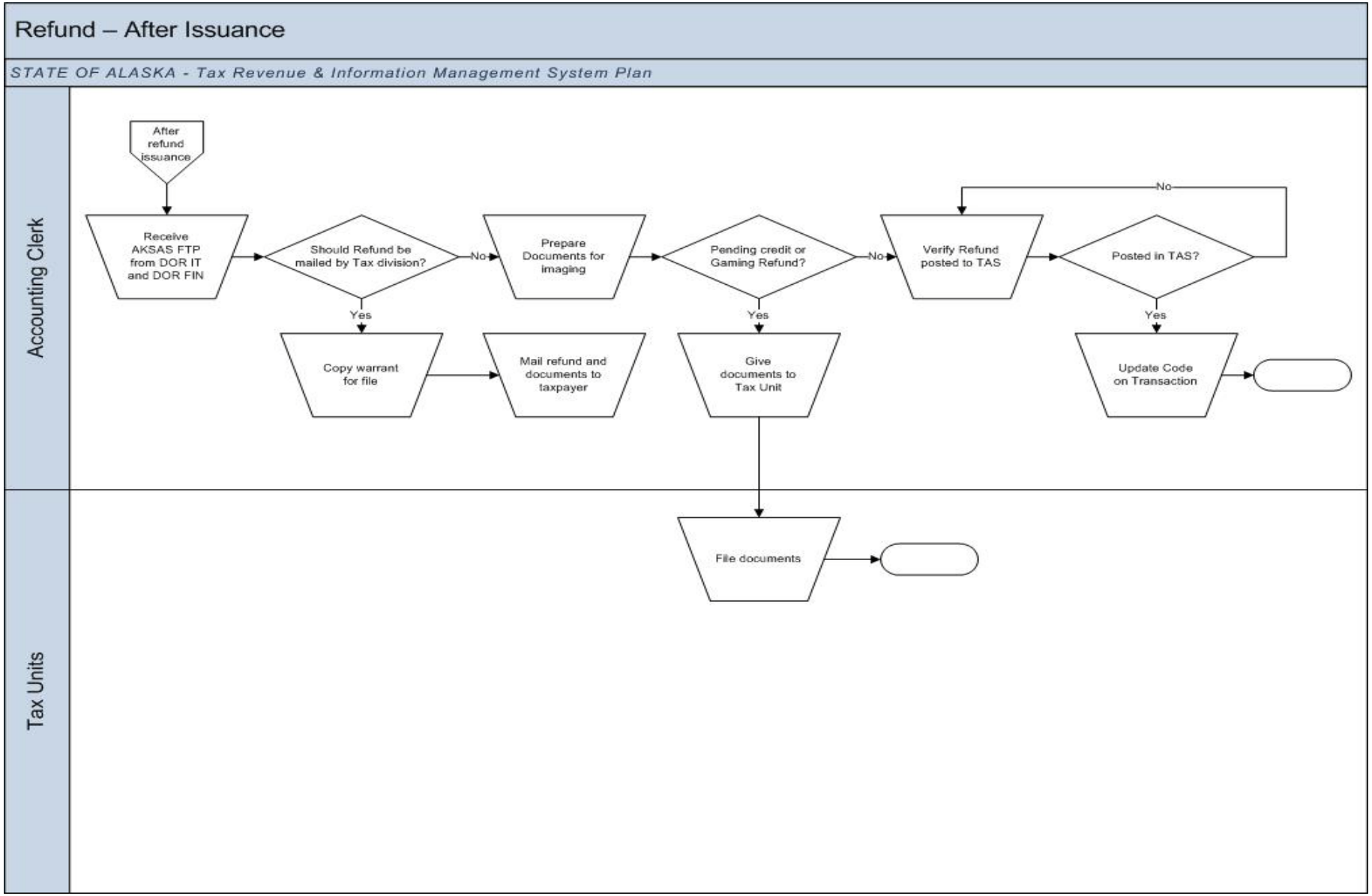
E. 23


Refund - Issuance
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Clerk
Accounting Tech
Refund Issuance
Enter refund details into AKSAS
Enter memo information into ASKAS
Dollar amount >=$50,000?
No
Yes
Set flag in AKSAS that the refund needs to be mailed by Tax Division
Screen print AKSAS
Retain Documents until after processed in AKSAS
AKSAS batch processing processes Refunds
Review refund information
Certify refund?
No
Exam
Yes
Enter refund information into Excel Spreadsheet

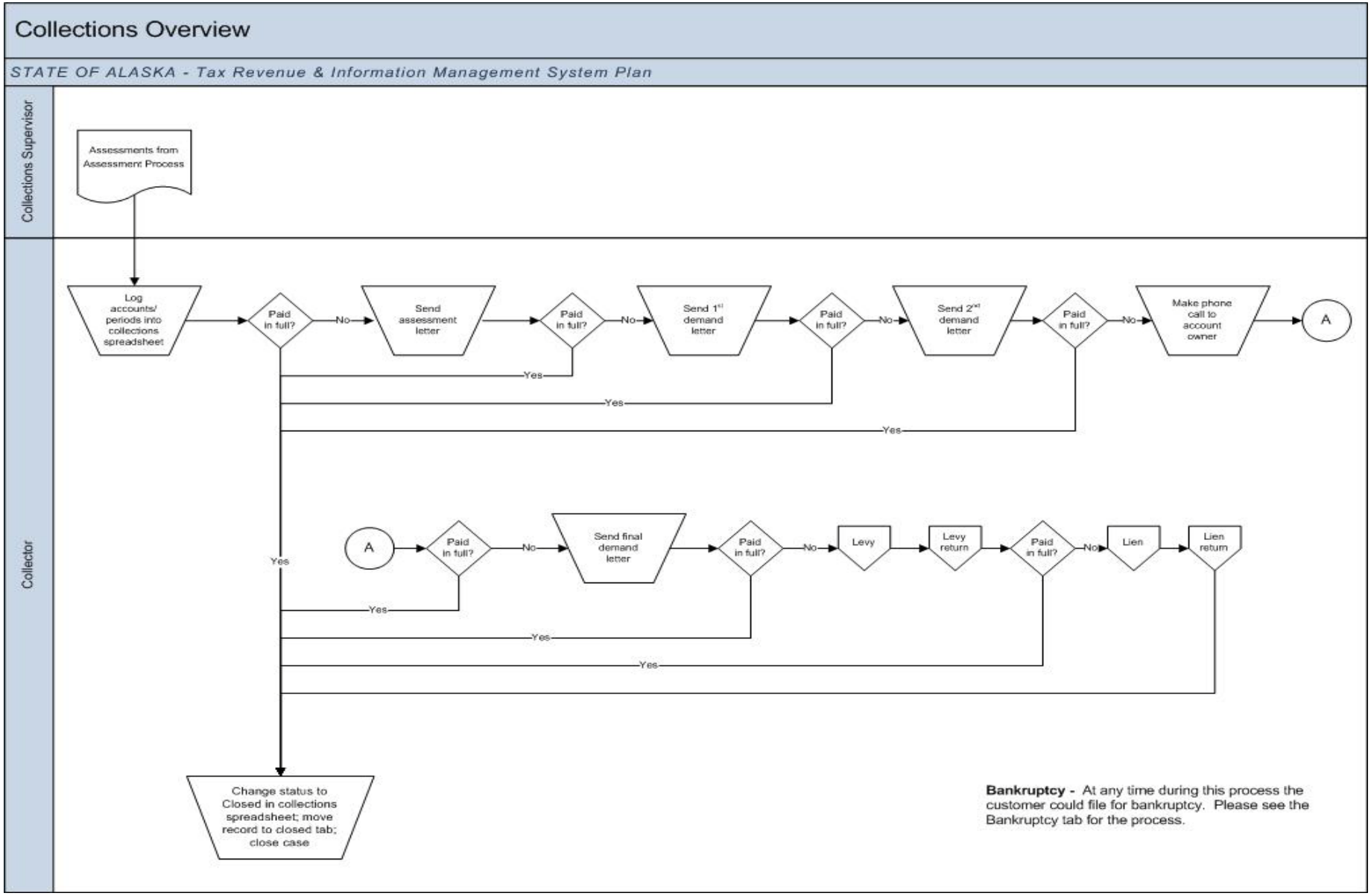
E. 24


Refund - Download
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Technician
Run Alder Report
Save text file, save copy on I drive
Open CAP and "Download" file
Errors in download?
No
Yes
Correct errors
"Upload" corrected file
"Apply" transactions in CAP to push to TAS
Update refund spreadsheet

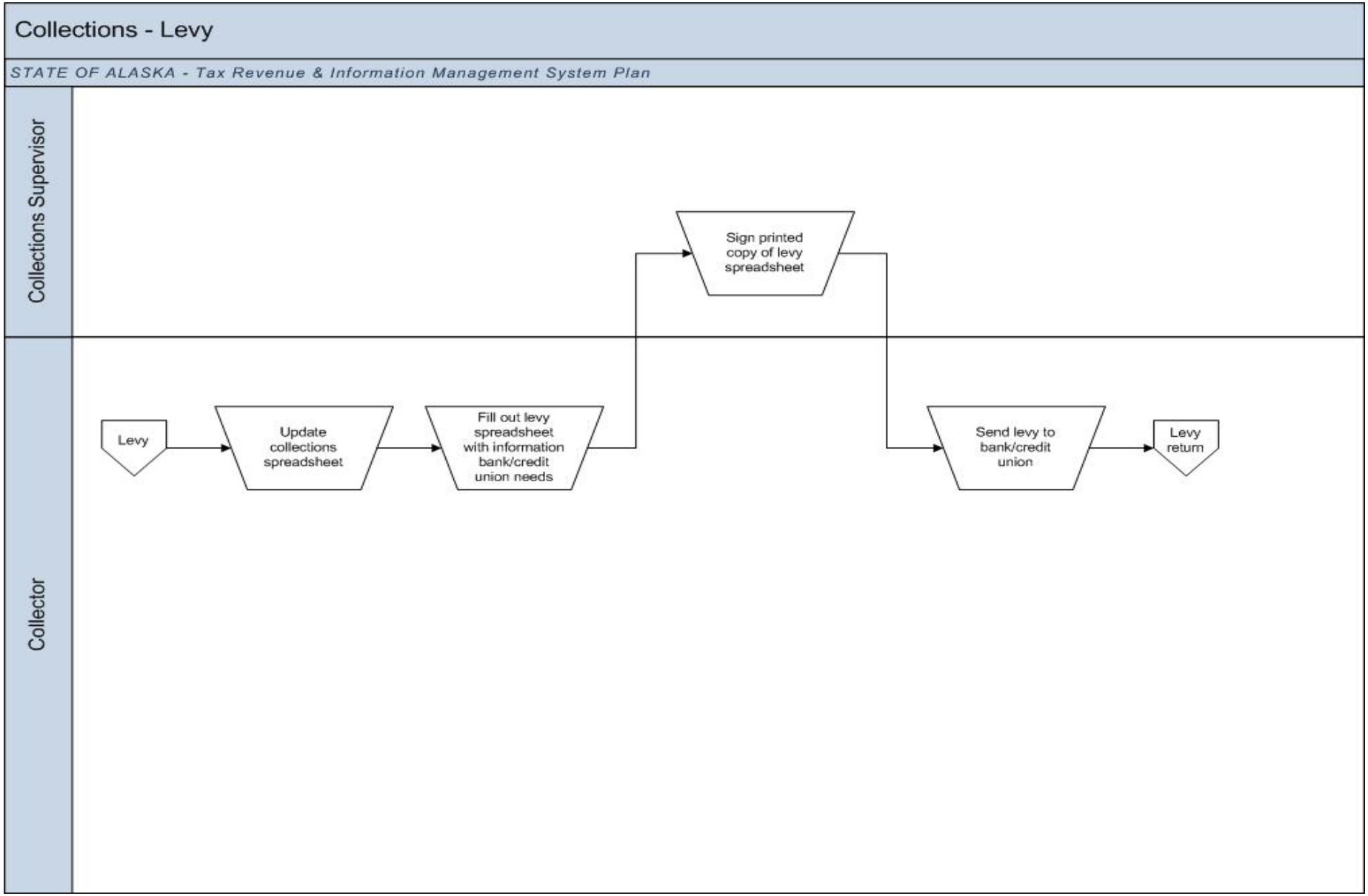
E. 25


Refund – After Issuance
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Clerk
Tax Units
After refund issuance
Receive AKSAS FTP from DOR IT and DOR FIN
Should Refund be mailed by Tax division?
No
Yes
Prepare Documents for imaging
Copy warrant for file
Mail refund and documents to taxpayer
Pending credit or Gaming Refund?
No
Yes
Give documents to Tax Unit
Verify Refund posted to TAS
Posted in TAS?
No
Yes
Update Code on Transaction
File documents

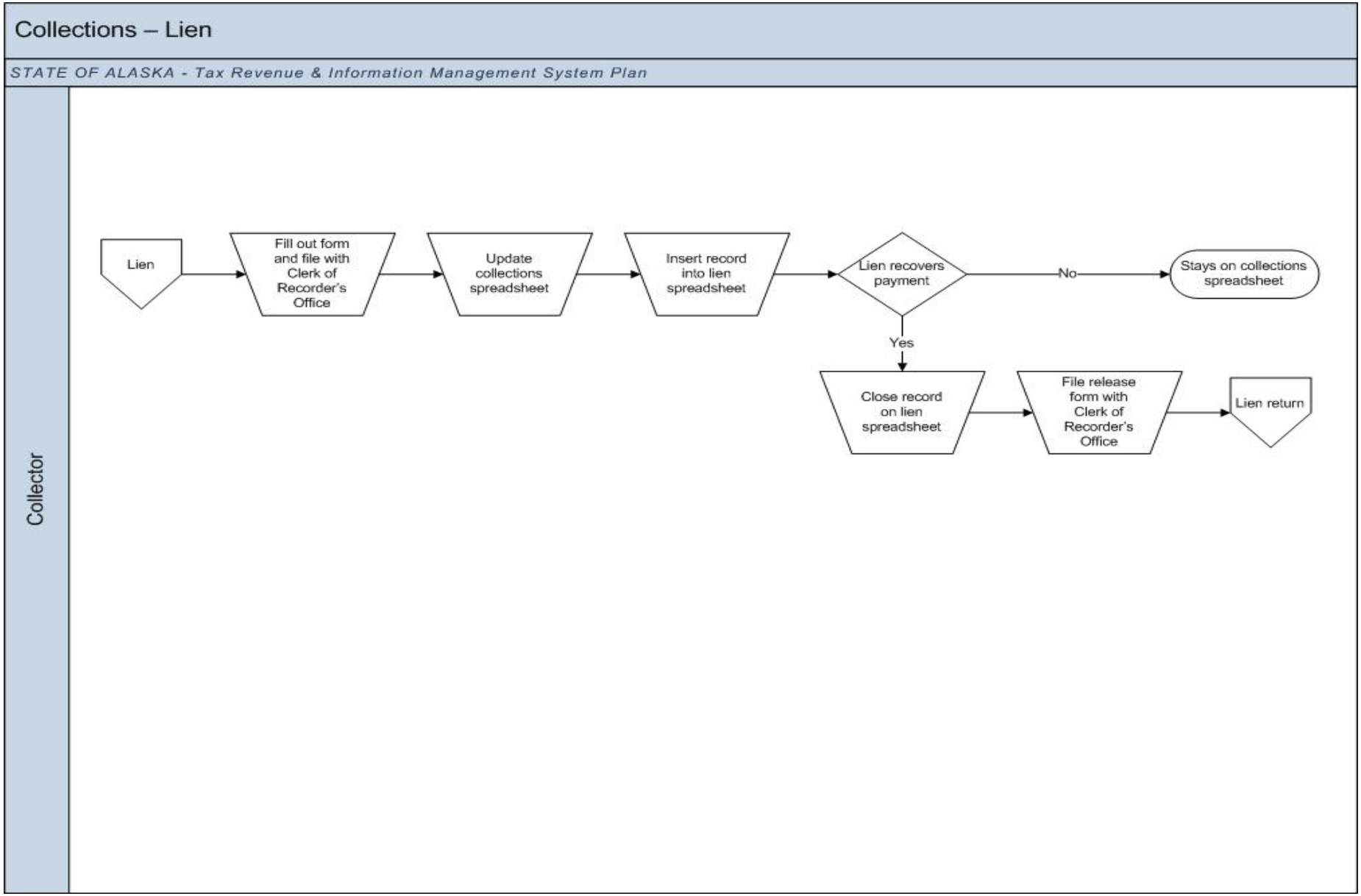
E. 26


Collections Overview
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Collections Supervisor
Collector
Assessments from Assessment Process
Log accounts/ periods into collections spreadsheet
Paid in full?
No
Send assessment letter
Paid in full?
No
Send 1st demand letter
Paid in full?
No
Send 2nd demand letter
Paid in full?
No
Make phone call to account owner
A
Yes
Yes
Yes
Yes
A
Paid in full?
No
Send final demand letter
Paid in full?
No
Levy
Levy return
Paid in full?
No
Lien
Lien return
Yes
Yes
Yes
Yes
Change status to Closed in collections spreadsheet; move record to closed tab; close case
Bankruptcy - At any time during this process the customer could file for bankruptcy. Please see the Bankruptcy tab for the process.

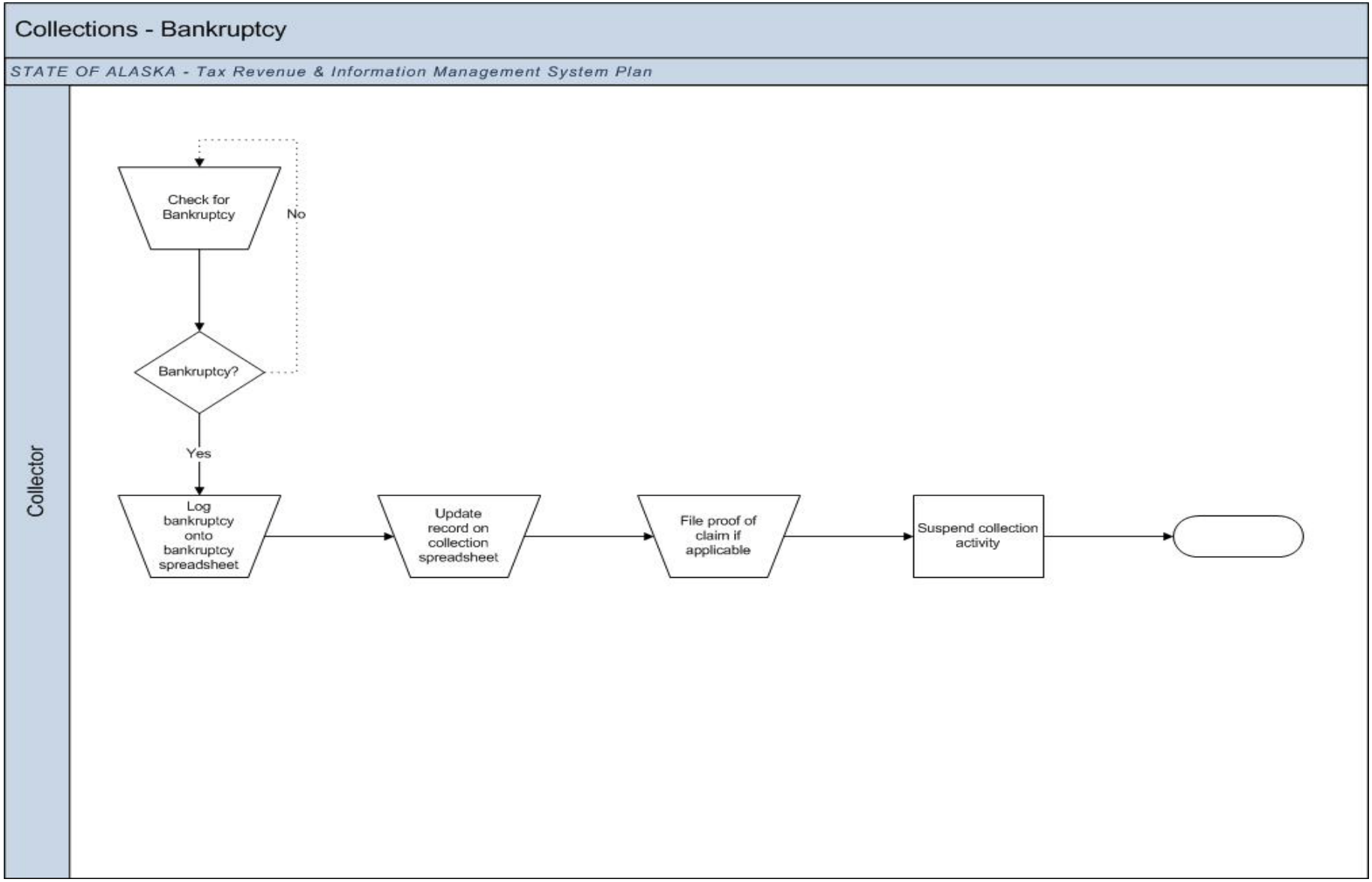
E. 27


Collections - Levy
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Collections Supervisor
Collector
Levy
Update collections spreadsheet
Fill out levy spreadsheet with information bank/credit union needs
Sign printed copy of levy spreadsheet
Send levy to bank/credit union
Levy return

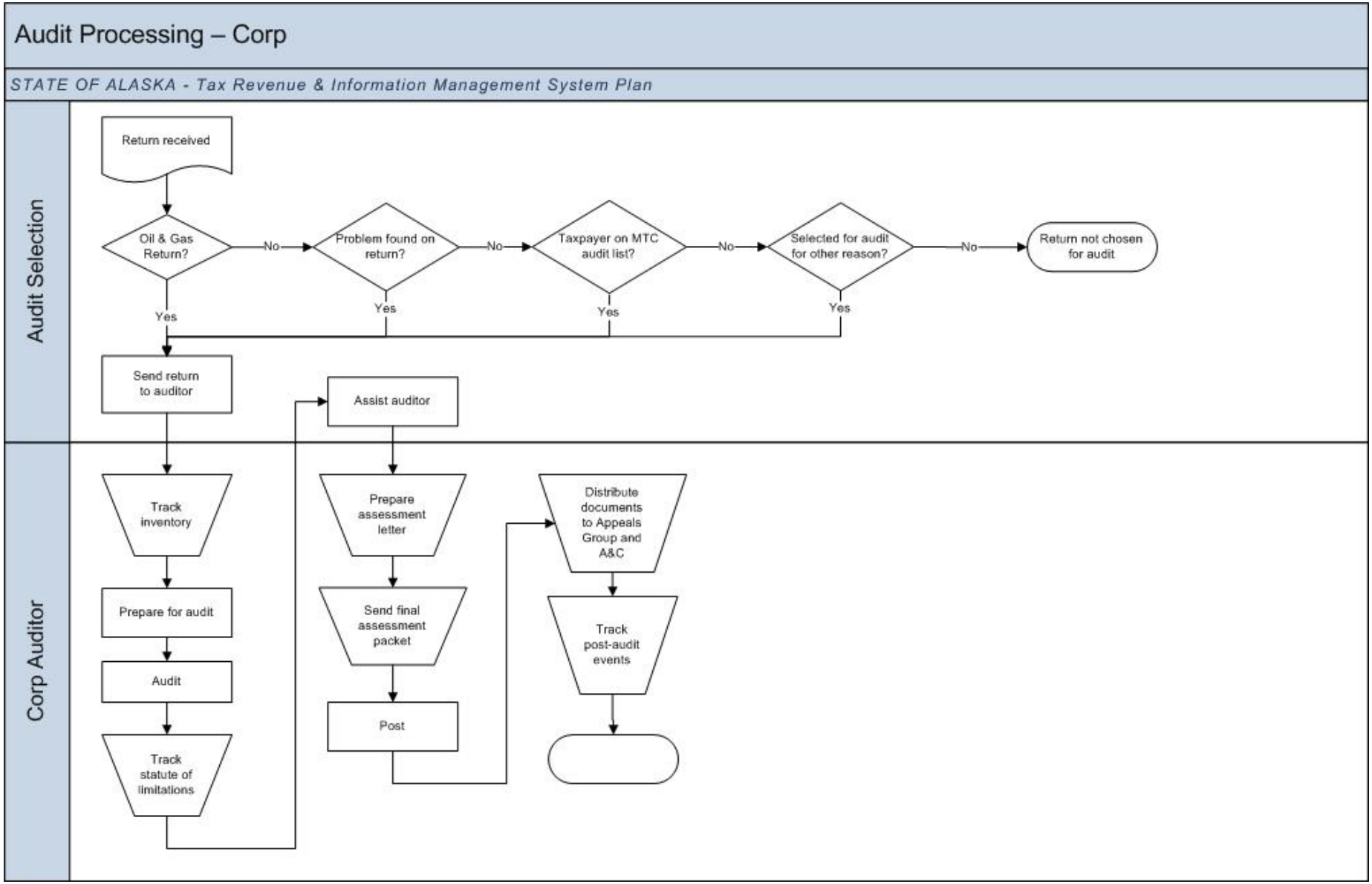
E. 28


Collections – Lien
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Collector
Lien
Fill out form and file with Clerk of Recorder's Office
Update collections spreadsheet
Insert record into lien spreadsheet
Lien recovers payment
No
Stays on collections spreadsheet
Yes
Close record on lien spreadsheet
File release form with Clerk of Recorder's Office
Lien return

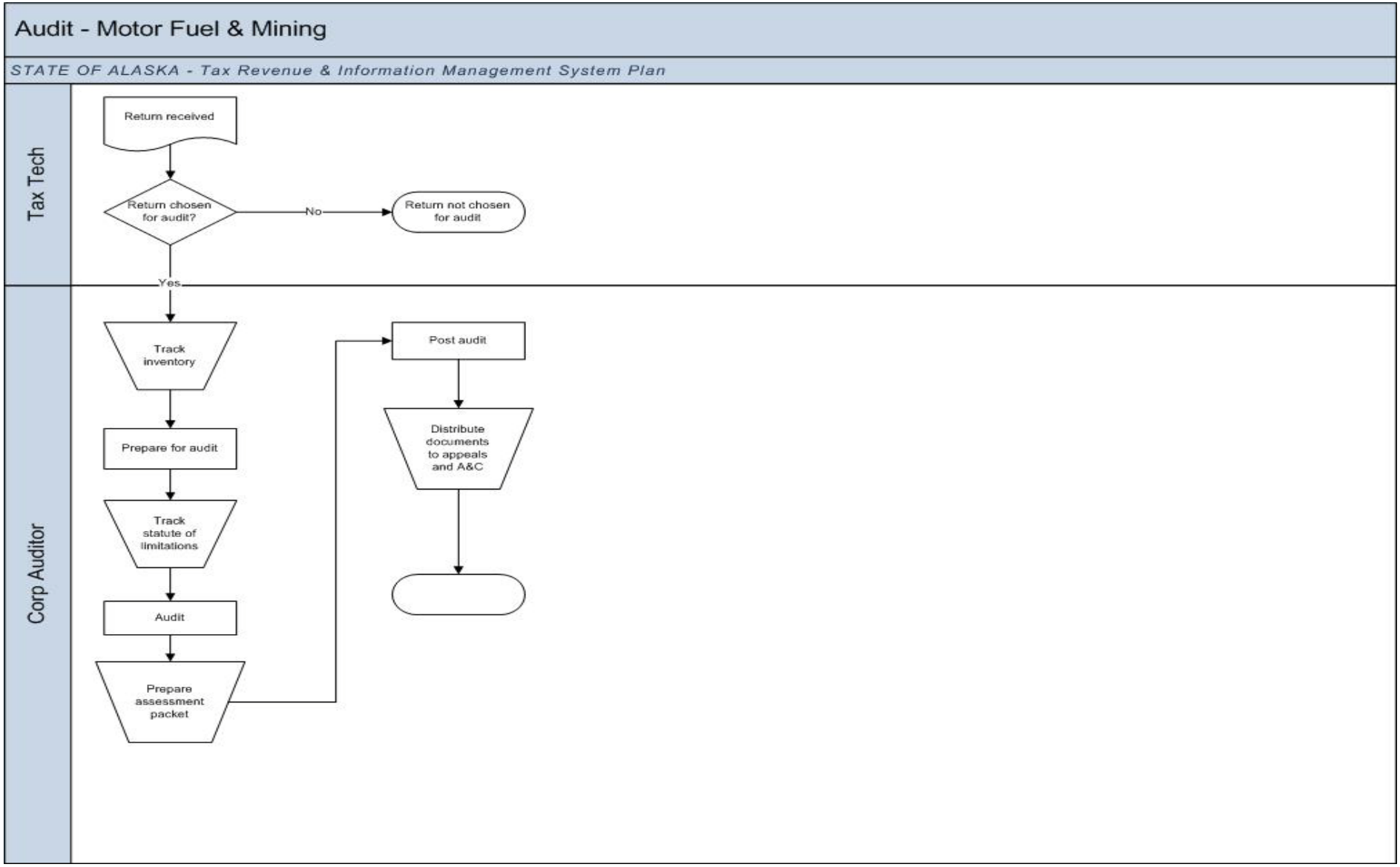
E. 29


Collections - Bankruptcy
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Collector
Check for Bankruptcy
No
Bankruptcy?
Yes
Log bankruptcy onto bankruptcy spreadsheet
Update record on collection spreadsheet
File proof of claim if applicable
Suspend collection activity

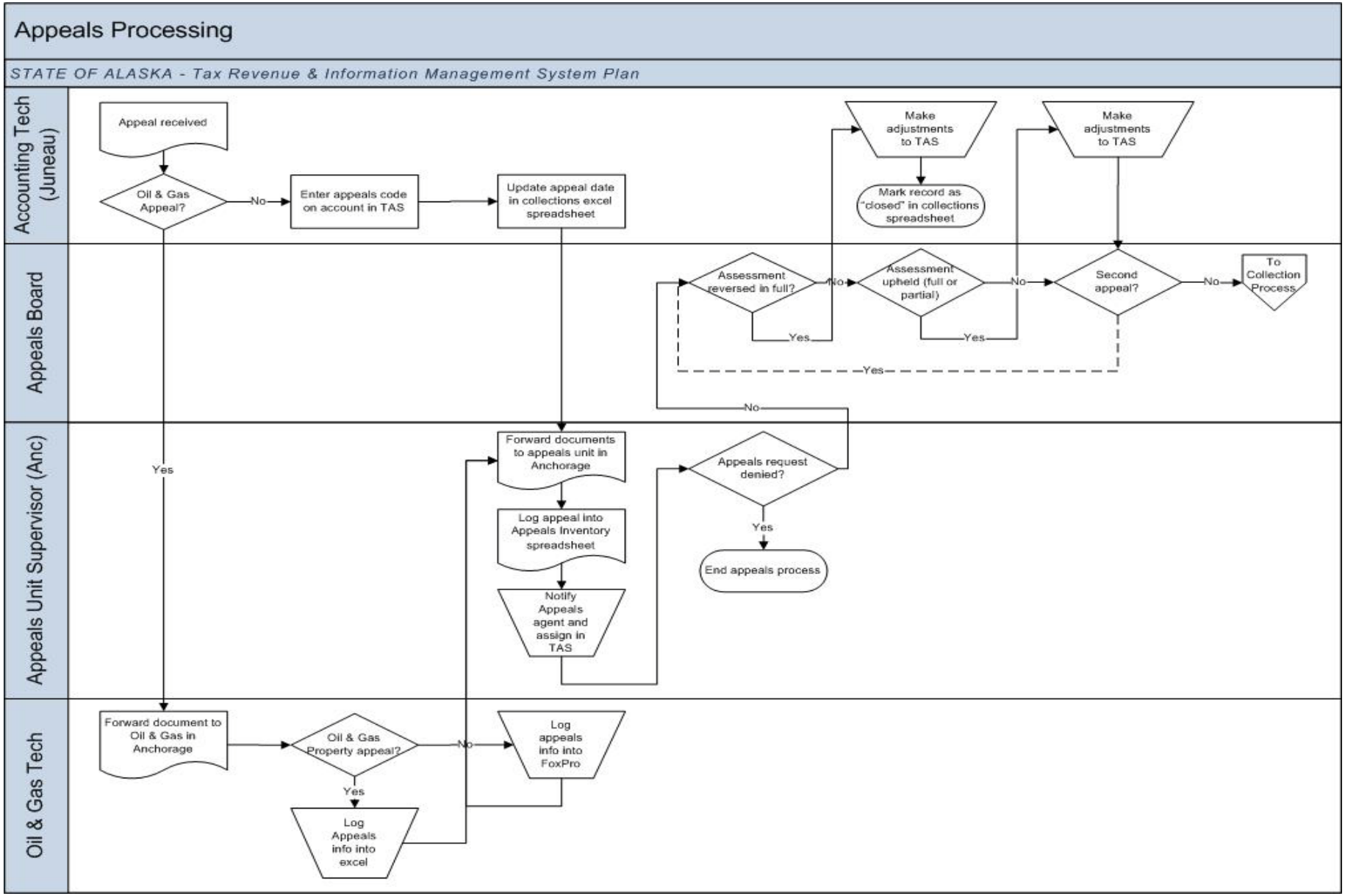
E. 30


Audit Processing – Corp
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Audit Selection
Corp Auditor
Return received
Oil & Gas Return?
No
Problem found on return?
No
Taxpayer on MTC audit list?
No
Selected for audit for other reason?
No
Return not chosen for audit
Yes
Yes
Yes
Yes
Send return to auditor
Assist auditor
Track inventory
Prepare for audit
Audit
Track statute of limitations
Prepare assessment letter
Send final assessment packet
Post
Distribute documents to Appeals Group and A&C
Track post-audit events

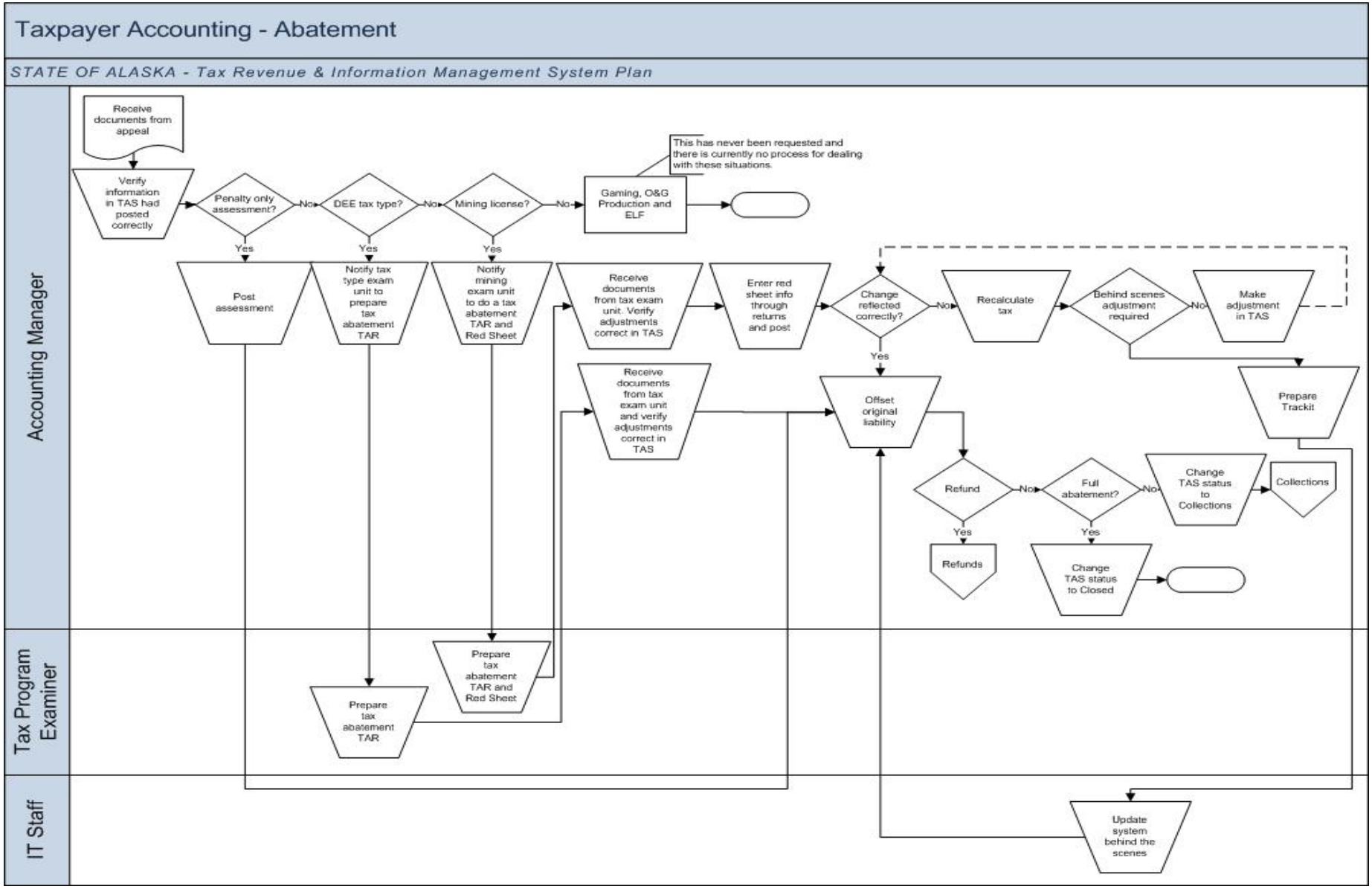
E. 31


Audit - Motor Fuel & Mining
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Tech
Corp Auditor
Return received
Return chosen for audit?
No
Return not chosen for audit
Yes
Track inventory
Prepare for audit
Track statute of limitations
Audit
Prepare assessment packet
Post audit
Distribute documents to appeals and A&C

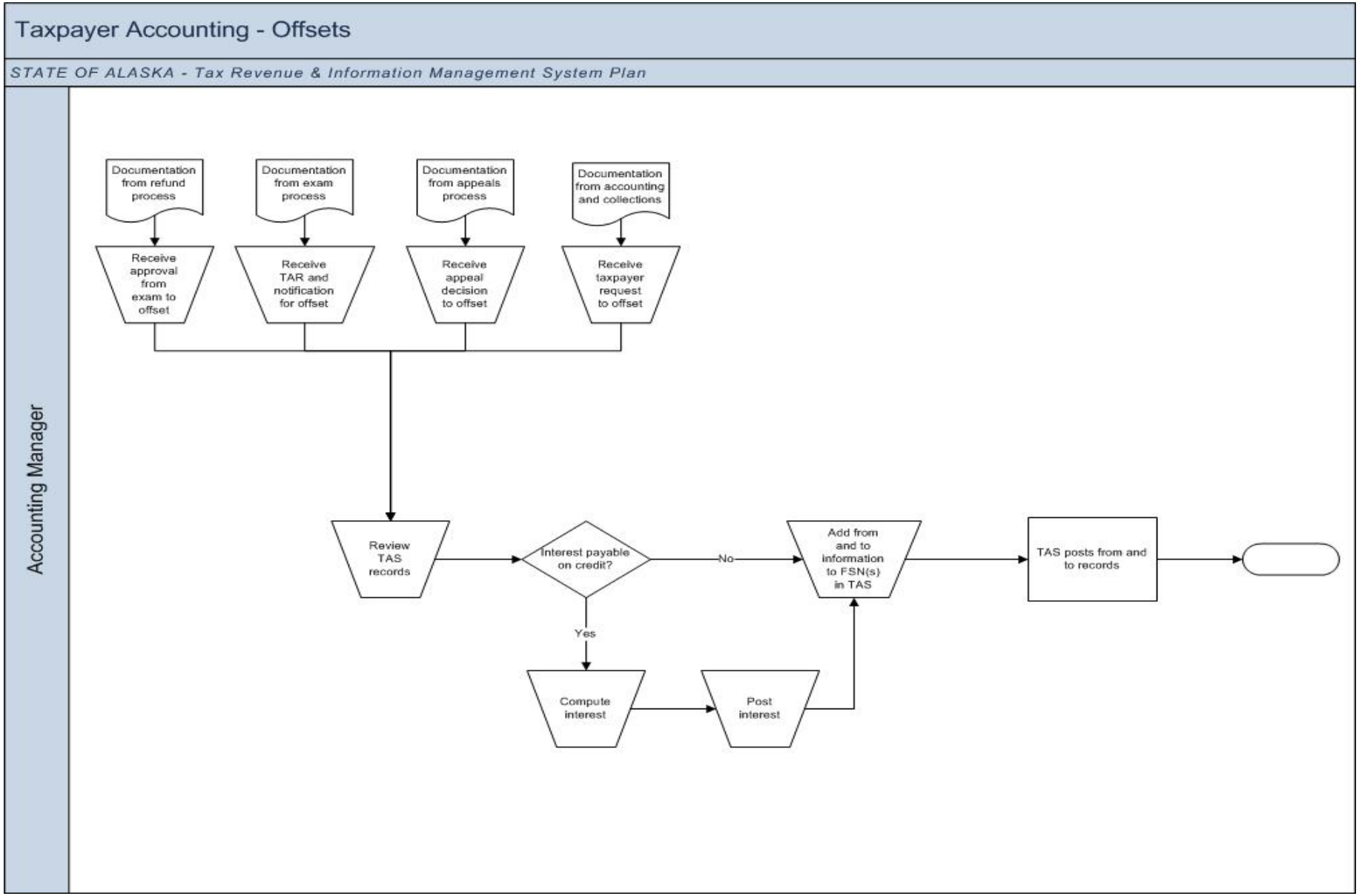
E. 32


Appeals Processing
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Tech (Juneau)
Appeals Board
Appeals Unit Supervisor (Anc)
Oil & Gas Tech
Appeal received
Oil & Gas Appeal?
No
Enter appeals code on account in TAS
Update appeal date in collections excel spreadsheet
Make adjustments to TAS
Mark record as "closed" in collections spreadsheet
Make adjustments to TAS
Assessment reversed in full?
No
Assessment upheld (full or partial)
No
Second appeal?
No
To Collection Process
Yes
Yes
Yes
No
Yes
Forward documents to appeals unit in Anchorage
Log appeal into Appeals Inventory spreadsheet
Notify Appeals agent and assign in TAS
Appeals request denied?
Yes
End appeals process
Forward document to Oil & Gas in Anchorage
Oil & Gas Property appeal?
No
Yes
Log appeals info into FoxPro
Log Appeals info into excel

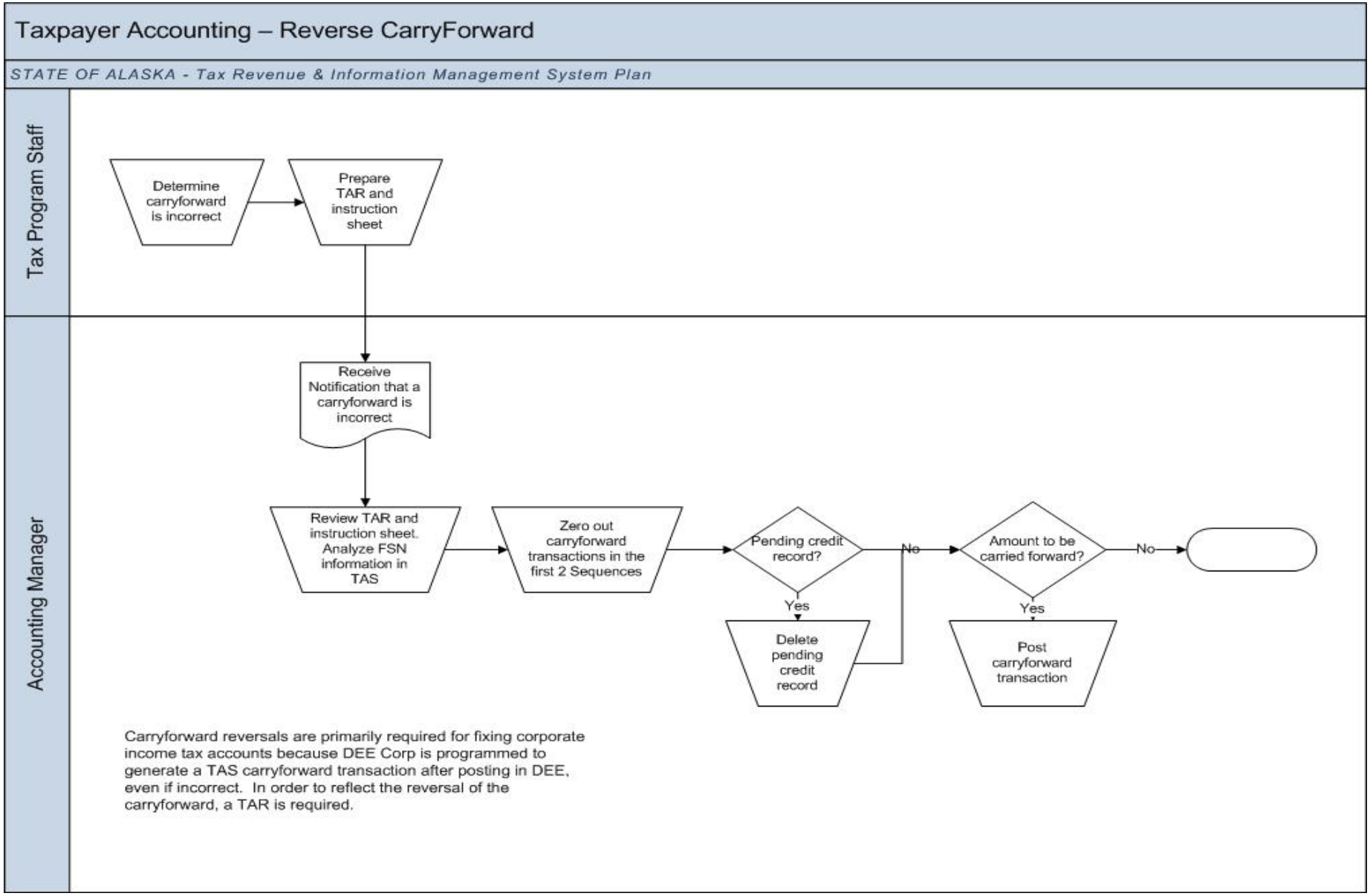
E. 33


Taxpayer Accounting - Abatement
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Manager
Tax Program Examiner
IT Staff
Receive documents from appeal
Verify information in TAS had posted correctly
Penalty only assessment?
DEE tax type?
Mining license?
Gaming, O&G Production and ELF
This has never been requested and there is currently no process for dealing with these situations.
Yes
No
Post assessment
Notify tax type exam unit to prepare tax abatement TAR
Notify mining exam unit to do a tax abatement TAR and Red Sheet
Receive documents from tax exam unit. Verify adjustments correct in TAS
Enter red sheet info through returns and post
Change reflected correctly?
Recalculate tax
Behind scenes adjustment required
Make adjustment in TAS
Prepare Trackit
Receive documents from tax exam unit and verify adjustments correct in TAS
Offset original liability
Refund
Full abatement?
Change TAS status to Collections
Collections
Refunds
Change TAS status to Closed
Prepare tax abatement TAR and Red Sheet
Prepare tax abatement TAR
Update system behind the scenes

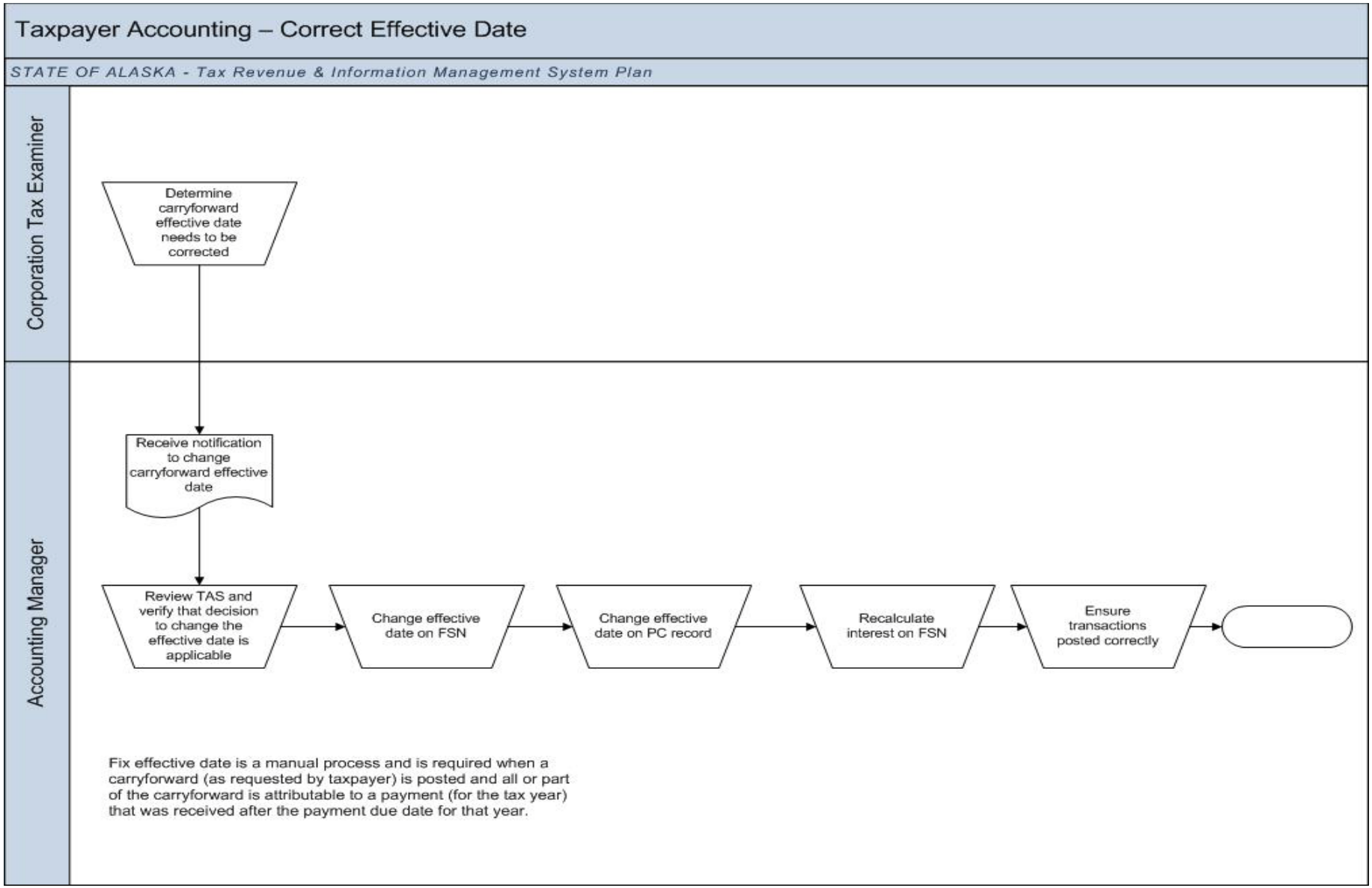
E. 34


Taxpayer Accounting - Offsets
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Accounting Manager
Documentation from refund process
Documentation from exam process
Documentation from appeals process
Documentation from accounting and collections
Receive approval from exam to offset
Receive TAR and notification for offset
Receive appeal decision to offset
Receive taxpayer request to offset
Review TAS records
Interest payable on credit?
No
Yes
Add from and to information to FSN(s) in TAS
TAS posts from and to records
Compute interest
Post interest

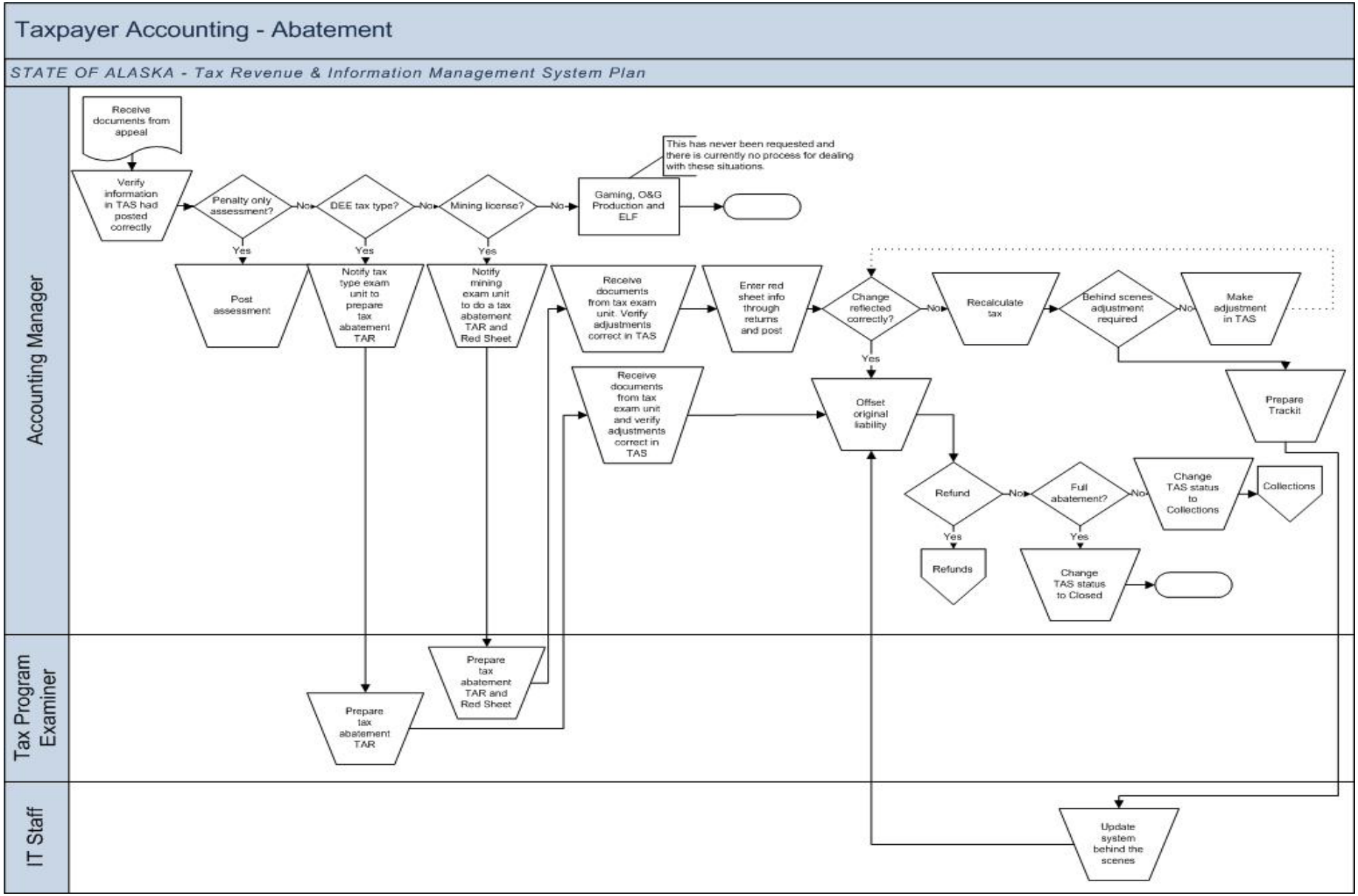
E. 35


Taxpayer Accounting – Reverse CarryForward
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Tax Program Staff
Accounting Manager
Determine carryforward is incorrect
Prepare TAR and instruction sheet
Receive Notification that a carryforward is incorrect
Review TAR and instruction sheet. Analyze FSN information in TAS
Zero out carryforward transactions in the first 2 Sequences
Pending credit record?
Yes
Delete pending credit record
No
Amount to be carried forward?
Yes
Post carryforward transaction
No
Carryforward reversals are primarily required for fixing corporate income tax accounts because DEE Corp is programmed to generate a TAS carryforward transaction after posting in DEE, even if incorrect. In order to reflect the reversal of the carryforward, a TAR is required.

E. 36


Taxpayer Accounting – Correct Effective Date
STATE OF ALASKA - Tax Revenue & Information Management System Plan
Corporation Tax Examiner
Accounting Manager
Determine carryforward effective date needs to be corrected
Receive notification to change carryforward effective date
Review TAS and verify that decision to change the effective date is applicable
Change effective date on FSN
Change effective date on PC record
Recalculate interest on FSN
Ensure transactions posted correctly
Fix effective date is a manual process and is required when a carryforward (as requested by taxpayer) is posted and all or part of the carryforward is attributable to a payment (for the tax year) that was received after the payment due date for that year.

E. 37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Receive documents from tax exam unit. Verify adjustments correct in TAS
Enter red sheet info through returns and post
Change reflected correctly?
Recalculate tax
Behind scenes adjustment required
Make adjustment in TAS
Prepare Trackit
Receive documents from tax exam unit and verify adjustments correct in TAS
Offset original liability
Refund
Full abatement?
Change TAS status to Collections
Collections
Refunds
Change TAS status to Closed
Prepare tax abatement TAR and Red Sheet
Prepare tax abatement TAR
Update system behind the scenes

APPENDIX F – Acronym Glossary

ADOR/TAX – Source citation for corporate author State of Alaska Department of Revenue Tax Division

AITG - Alaska Information Technology Group

AKSAS - Alaska State Accounting System

ASPR - Alaska Salmon Price Report

BPI - Business Process Improvement

BPR - Business Process Reengineering

CASS - USPS Coding Accuracy Support System

COTS - Commercial Off-the-Shelf

CPS - Cash Processing System

DEE Excise - Data Entry and Examination Excise System

DEE Motor Fuel/Corp - Data Entry and Examination Motor Fuel/Corporation Tax System

DOR/TAX - Department of Revenue Tax Division

EBN - Electronic Bankruptcy Notification

EDI - Electronic Data Interchange

EMR - Economic Monthly Report

FAST - Fast Enterprises, LLC

FHWA - Federal Highway Administration

IFTA - International Fuel Tax Agreement

IMF - Federal Individual Master File

IRP - International Registration Plan

ITMS - Integrated Tax Management System

MBP - Multiple Beneficiary Permittees

MeF - Modernized e-File

MS - Microsoft

OLAP - Online Analytical Processing Model

OPAL - Online Permit and License

OTIS - Online Tax Information System

OVR - Offtake Volume Reporting

PMBOK - Project Mangement Body of Knowledge, Standard for Project Management created by Project Management Institute

PFD - Permanent Fund Dividend

PIPS - Performance Information Procurement System

PMP - Project Management Plan

RFI - Request for Information

RFP - Request for Proposal

SAN - Storage Area Network

SME - Subject Matter Experts

TAS - Tax Processing System

TRIMS - Tax Revenue and Information Management System

UP - Unclaimed Property Viewer

WBS - Work Breakdown Structure