PERFORMANCE AUDIT OF SOUND TRANSIT'S INFORMATION TECHNOLOGY PROCUREMENT AND CONTRACT MANAGEMENT

PRESENTED TO:

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Contents

EXECUTIVE SUMMARY

The Central Puget Sound Regional Transit Authority (Sound Transit) hired MGT of America (MGT) to conduct this audit of its procurement of Information Technology (IT) goods and services, which focused on two general procurement processes—acquisition and contract management.

The audit team found that Sound Transit has many areas with strong practices that reflect the organization's commitment to quality. These include the agency's commitment to employing strong documentation standards for purchases and contracts, as well as its proactive efforts to provide continuous reviews and evaluations for opportunities to improve operating efficiency and effectiveness. The team also found areas where the agency can achieve operational and financial improvements and gains in efficiency and effectiveness, such as the agency's computer lifecycle management and IT inventory processes. Further, its IT strategic planning and policies could better incorporate goals and objectives related to computer lifecycle, equipment replacement, virtualization, and asset management. Additionally, Sound Transit has opportunities to streamline IT procurement approvals and documentation processes associated with IT purchases of goods and services, and improve its reporting functions to better assist management in coordinating and overseeing the IT function for the agency.

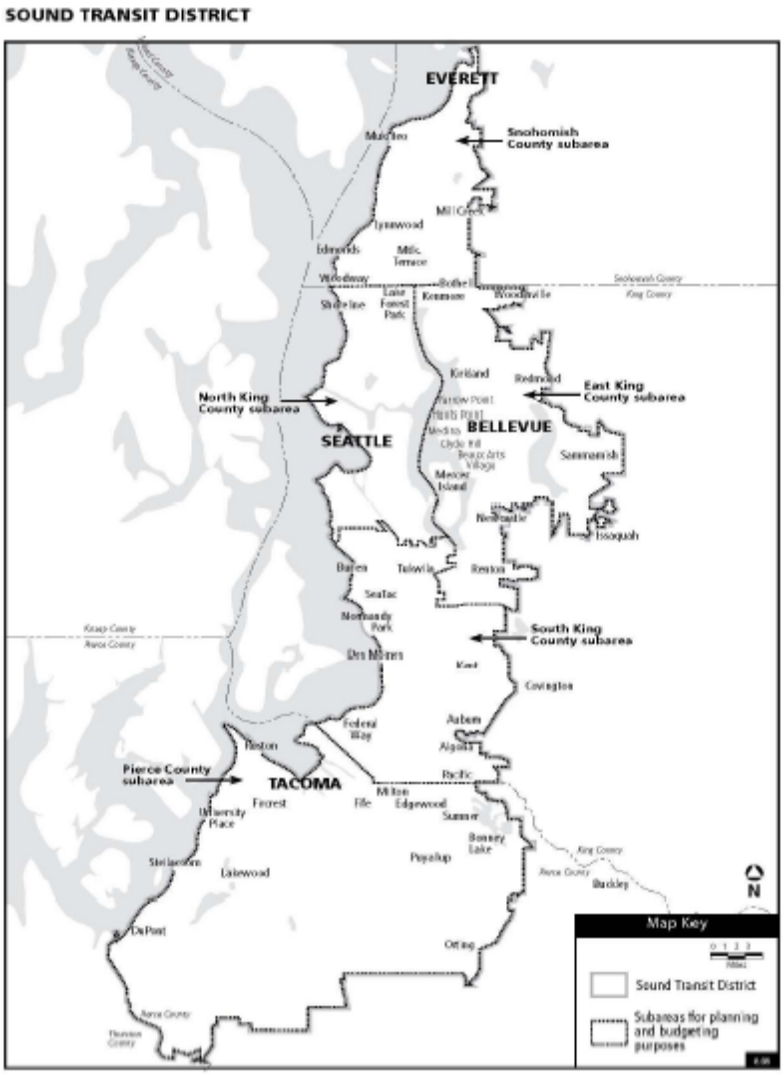
Sound Transit has opportunities to improve its IT governance with respect to procurement and asset management. Sound Transit has not recently updated its IT strategic plan and has not fully implemented policies and processes related to computer lifecycle management, equipment replacement, IT inventory, and asset management. Additionally, some of its administrative policies are outdated. In place of a formal equipment replacement policy, Sound Transit generally replaces equipment upon expiration of warranties and it reviews and approves requests for equipment replacement through its standard procurement processes. Further, Sound Transit lacks adequate IT asset management processes and does not have a reliable and updated IT inventory. Consequently, Sound Transit does not have mature IT planning, monitoring, and tracking processes surrounding IT procurement, asset management, and budgeting.

Sound Transit may have opportunities to streamline its procedures for obtaining and documenting IT procurement approvals and maintaining documentation associated with the purchases. However, these opportunities need to be carefully considered and weighed against the risks of making the changes. Sound Transit currently requires multiple levels of review and approval for purchases.

Sound Transit also has opportunities to improve its reporting functions to better assist IT staff in coordinating and overseeing the IT function for the agency. Currently, administrative functions associated with budgeting and expenditure processes for IT goods and services are distributed among managers. Further, Sound Transit has limited means to gain a full picture of the agency's total IT expenditures, and limited ability to quantify costs associated IT staff working on IT projects and maintaining agency systems.

BACKGROUND AND INTRODUCTION

Sound Transit was created in 1993 by the Washington State Legislature through State-enabling legislation (RCW 81.112), and began operations in 1996 within Snohomish, King, and Pierce counties. In creating the Sound Transit, the Legislature noted that its intent was for the agency to develop alternatives for meeting regional travel needs in the greater Seattle metropolitan area. To carry out its mission, the Legislature tasked Sound Transit with planning, building, and operating a high-capacity transit system within a three-county regional transit district for the region's most heavily used travel corridors. Since its inception, Sound Transit has implemented 74 miles of commuter rail services; 26 express bus routes with a fleet of 240 buses serving approximately 12.9 million passenger trips annually; a 1.6 mile light rail line in Tacoma; and 13.4 miles of link light rail services, among other services.



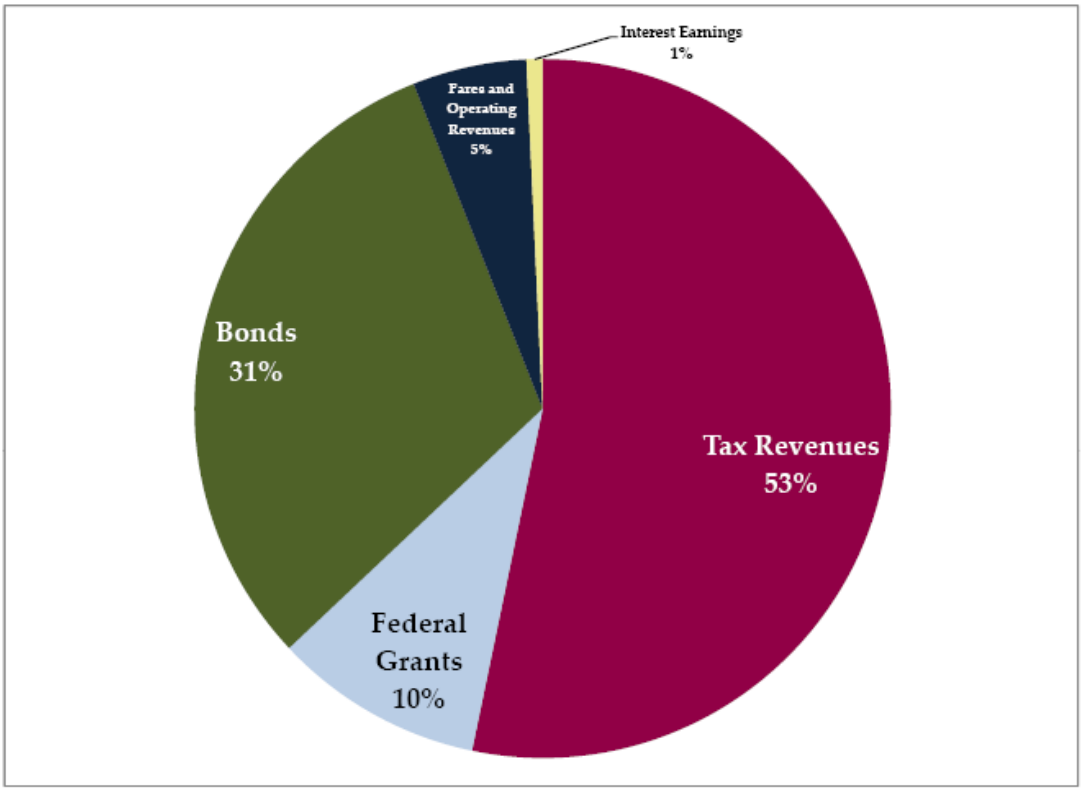
Sound Transit is a special-purpose metropolitan municipal corporation responsible for the construction and operation of high-capacity public transportation systems within its district. Sound Transit operates express bus, commuter rail, and light rail service in the greater Seattle Metropolitan area—focused on five subareas within King, Pierce, and Snohomish counties—and is responsible for constructing capital projects in support and expansion of those services.

Sound Transit is an independent transit authority. Four other transit agencies operate public transit services within the Sound Transit district: King County Metro; Pierce Transit; Community Transit; and Everett Transit. Sound Transit has contracted with three of these agencies to operate its regional bus express services under joint operating agreements. Additionally, Sound Transit has contracted with King County Metro to operate the initial

segment of the Link light rail system. In November 2008, voters approved an extensive program of transportation projects that will add 34 miles of light rail services.

As illustrated in Exhibit 1 below, Sound Transit is funded primarily by tax revenues from three main sources: sales and use taxes of 0.9 percent; motor vehicle excise taxes of 0.3 percent; and rental car taxes of 0.8 percent. For the 15-year planning period of 2009 through 2023, Sound Transit estimates that tax revenues will generate funding of approximately $12.6 billion, or 53 percent of all revenues. In addition to tax revenues, the agency also receives grant funds, most of which derive from three discretionary grants from the Federal Transit Administration. Sound Transit also receives a small portion of its revenues from operating revenues (fare revenues) and interest earnings. Finally, Sound Transit has planned to issue bonds to finance transit infrastructure costs in future years. Bonds will provide approximately 31 percent of expected funding during the agency's 15-year planning period.

Exhibit 1: Sound Transit Projected Funding by Funding Source, 2009 to 2023



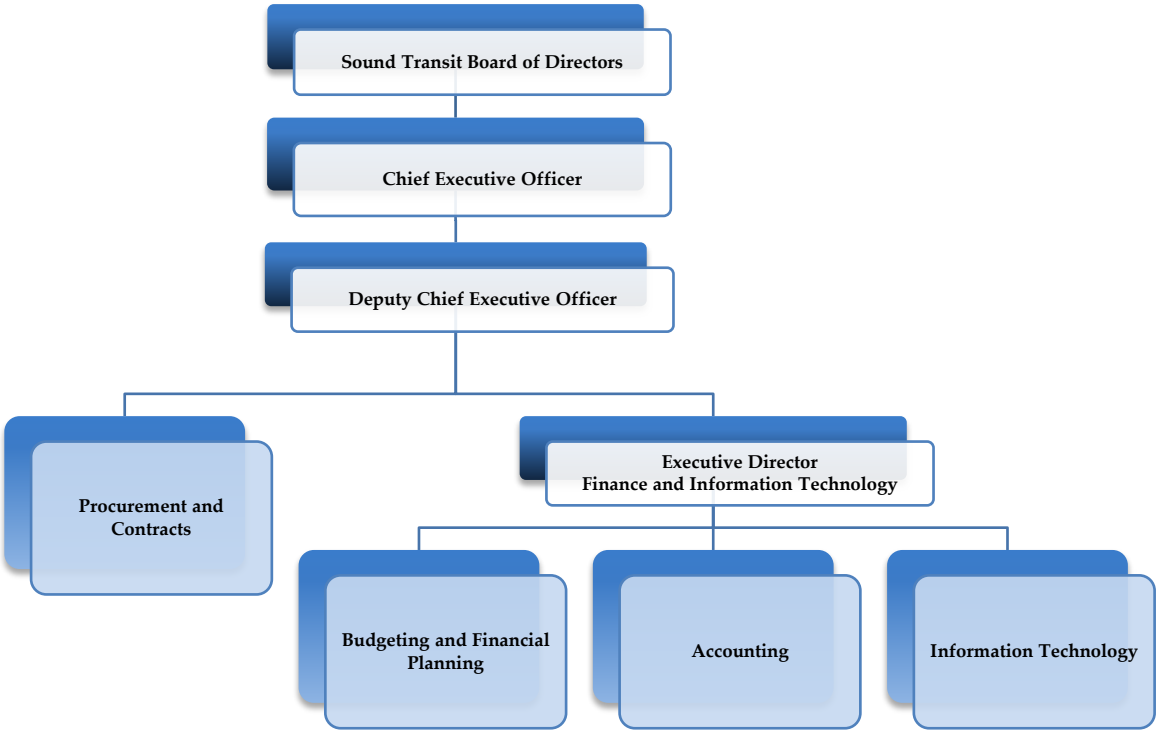
Source: Auditor generated using the Central Puget Sound Regional Transit Authority 2010 Financial Plan.

Sound Transit is governed by an 18-member board consisting of the Washington State Secretary of Transportation and 17 local city and county officials who are appointed by the legislative authority of each of the member counties. Each county is given one representative per 145,000 residents. The Board appoints the Chief Executive Officer (CEO), who in turn is given the authority to hire the staff necessary to oversee and implement Sound Transit's goals and business objectives.

Organizational Structure and Operations

Sound Transit's CEO has delegated oversight authority for agency functions to several key executive managers. The Deputy Chief Executive Officer oversees the Procurement and Contracts Division and the Finance and Information Technology Department, as illustrated in Exhibit 2 below. The Executive Director of the Finance and Information Technology Department oversees administrative functions including the Budgeting and Financial Planning, Accounting, and IT divisions. The Procurement and Contracts Division is responsible for procurement of goods and services and contract management, and it also assists business units with competitive bidding, managing documentation, processing purchase orders, and contract compliance. The Accounting Division is responsible for maintaining accounting records, processing accounting transactions, and producing financial reports. The IT Division is responsible for processing requests for technology goods and services, administering the network, managing IT security, managing the help desk, and other IT support and services.

Exhibit 2: Sound Transit Organizational Structure Related to Contracting and IT



Source: Sound Transit organizational charts.

To ensure that it can meet public accountability and grant requirements, Sound Transit undergoes various audits and reviews, including the following:

- ***Annual Financial Statement and Single Audit Reports.*** Sound Transit contracts with an independent external auditor to conduct its annual financial and comprehensive audits. Sound Transit's external auditors review the agency's compliance with U.S.

Office of Management and Budget Circular A-133 (for federal funding), as well as compliance with Generally Accepted Accounting Principles.

- ***Annual Report on Subarea Equity.*** Sound Transit engages an independent auditor to review its subarea reports for compliance with agreed-upon procedures for allocation of resources to the subareas. The principle of subarea equity assures that Sound Transit taxes raised within an area are used for capital projects and operations that benefit the residents of that area. Sound Transit's auditors review annually its use of funds in five geographic areas: Snohomish County; North King County; South King County; East King County; and Pierce County.

- ***Federal Transit Administration (FTA) Oversight.*** The FTA has assigned agents to oversee financial and project management functions, and conduct process reviews of planning, design, and implementation of major capital projects to ensure compliance with all federal guidelines. Additionally, at a minimum of three-year intervals, the FTA conducts a review to ascertain the agency's compliance with 23 functional requirements of agencies receiving federal funds, including procurement, fare policy, and financial controls.

- ***Accountability Audit***. The Washington State Auditor's Office (SAO) annually conducts audits of Sound Transit's accountability and compliance with state laws and regulations, and its own policies and procedures. The SAO's tests include areas such as safeguarding of assets; subarea equity; expenditures, vouchers, and credit card use; purchasing of goods and services; and compliance with contract and bid requirements.

- ***Triennial Performance Reviews***. In accordance with FTA requirements, Sound Transit has entered into a formal agreement with the Puget Sound Regional Council (PSRC) to have it coordinate the triennial performance reviews required by the FTA of agencies receiving grant funds to evaluate the grantees' adherence to federal requirements.

- ***Financial Management Oversight Committee.*** Sound Transit contracts with a financial expert to review financial plans to ensure that the agency's assumptions and calculations are reasonable and in accordance with the FTA's Guidance for Transit Financial Plans. The consultant also ensures that Sound Transit has conducted "stress tests" to validate that the agency has sufficient capacity to meet all financial obligations, even in the event that costs are higher or revenues are lower than assumed.

- ***Citizens' Oversight Panel.*** A volunteer body appointed by the Sound Transit Board oversees and monitors the agency's implementation of major initiatives. The panel also presents two reports to the Board per year on findings and recommendations to ensure the success of agency plans and investments.

Between 2005 and 2010, Sound Transit had no findings related to procurement or contract management resulting from its audit and agreed-upon procedures reviews, and one finding related to its oversight of federal grant funds. Additionally, the SAO in its accountability report had no findings and has consistently reported that Sound Transit's internal controls were adequate to safeguard public assets in the reports issued for years ending 2005 to 2009. The SAO also found that Sound Transit had complied with state laws and regulations and its own policies and procedures in the areas the SAO examined.

In 2010, Sound Transit created an internal audit function. The Internal Audit Division provides an independent and objective assurance function guided by a philosophy of adding value to strengthen and improve the management and operations of the agency. The Internal Audit Division assists Sound Transit in achieving agency goals and objectives by bringing a systematic and disciplined approach to evaluate and improve the efficiency and effectiveness of agency management, agency business practices, risk management, and activities designed to ensure accountability, control, and compliance with laws and regulations. In early 2010, Sound Transit appointed an interim Internal Audit Manager tasked with developing a risk assessment and an initial internal audit work plan. Based on the work plan, Sound Transit issued a work order seeking consultants to assist it in carrying out this performance audit of Information Technology Procurement and Contract Administration.

SCOPE AND METHODOLOGY

Sound Transit's purpose in conducting this audit was to have an evaluation of its procurement of IT goods and services, with focus on the identification of potential cost saving opportunities or improvements in procurement effectiveness. The audit focused on two general procurement processes—acquisition and contract management.

The audit team conducted individual interviews, reviewed Sound Transit policies and procedures, reviewed samples of purchases and payments to vendors for IT goods and services, and performed data analysis of electronic records maintained within Sound Transit's IT systems, including its Enterprise One enterprise resource planning system, LiveLink document management system, and Business Objects reporting system.

To evaluate Sound Transit's IT acquisition processes, the team performed the following audit procedures related to IT procurement governance, asset management, and purchasing practices:

- Reviewed IT procurement policies, procedures, practices, and associated internal controls for proper safeguards. This included reviewing the procedures for submitting requests to the CFO, CEO, and/or Board for approval.
- Compared policies and procedures to those used by agencies recognized as leaders within the field of IT procurement, including research by IT professional organizations and standardization bodies, other governmental or transit agencies, and private sector entities.
- Documented and reviewed the systems and practices for processing IT acquisitions. Verified the accuracy and completeness of the data recorded in the electronic files.
- Obtained the agency's chart of accounts and object codes and identified those for IT purchases that fell within the scope of the audit.
- Reviewed expenditures, including budgeted to actual totals for the three most recent fiscal years, and documented purchasing trends.
- Reviewed the use of purchase orders and credit cards related to IT procurement to determine if the organization is gaining the best value through current processes.
- Reviewed data of IT purchases and selected a sample of transactions for audit testing. Verified that, for each sample item selected, Sound Transit followed appropriate procedures related to requisition, approval, receiving (goods and services), and closeout. Also, reviewed sample items for potential cost savings associated with each transaction.
- Reviewed purchases and electronic payments made for IT services and goods pulled from data reports and credit card statements, against policies, procedures, and best practices.
- Reviewed Sound Transit's IT inventory control systems and physical inventories performed over the past three years.

- Reviewed the IT equipment replacement policies and procedures and associated processes to identify potential cost-saving or customer satisfaction improvements.
- Evaluated processes for calculating and monitoring the life cycle costs of IT assets, including Sound Transit's policies and procedures for managing asset redeployment and asset disposal. Compared existing Sound Transit processes to those used by private or public agencies known for best practices to determine if opportunities for improvement exist.

To evaluate Sound Transit's IT contract management, the audit team performed the following audit procedures related to Sound Transit management and coordination activities involved in fulfilling contract requirements, including expediting orders, acceptance of products and services, installation of systems, and contract administration:

- Identified systems and procedures for IT contracting, including bidding and competitive procurement processes for identification of sourcing alternatives, generating communications (such as requests for proposals and requests for quotations) to suppliers, evaluating supplier proposals, and negotiating contracts with suppliers.
- Reviewed a sample of contract-related purchases and the extent to which staff documented the competitive bidding efforts and obtained competitive prices.
- Reviewed processes for carrying out competitive bidding activities and IT procurement. Quantified the time and costs associated with carrying out competitive bidding requirements to determine if the agency has opportunities for efficiencies.
- Documented the extent to which Sound Transit ensures it receives discounts in accordance with vendor agreements by comparing a sample of purchases to prices available through other sources, including state or county purchasing agreements, Internet vendors, purchasing collectives used by other states or government entities, or private enterprises.
- Documented procedures for submitting change orders or contract amendments to the CFO, CEO, and/or Board for review and approval.
- Analyzed the extent to which vendors are submitting lower bids only to gain increased payments through the subsequent contract changes or add-ons, and whether changes and add-on contracts are being approved that should have been included as part of the initial scope of work.
- Reviewed IT projects and project management methodology related to procurement management of project-related acquisitions of IT products and services, including identification of some IT acquisitions made as part of non-IT projects, and verified whether these purchases were made in compliance with Sound Transit policies and procedures.
- Reviewed IT vendor management processes and identified any opportunities for increasing access to qualified IT vendors or achieving cost savings.

- Identified any opportunities for partnering with other organizations, including state, city, or county governments, to obtain increased discounts, including processes or systems used by other governments who have representatives on the Sound Transit Board and best practice recommendations from industry leaders in private and public entities.
- Reviewed processes for tracking and monitoring contract compliance, including analyzing service levels and deliverables for compliance for division needs, service level agreements, and the contract terms.
- Selected a sample of large IT projects that were administered by the IT Division and evaluated the effectiveness of the Sound Transit policies and procedures related to contract compliance, including review of periodic progress reports, closeout reports, and other documentation to determine whether they sufficiently illustrate the value Sound Transit received from the contracted goods and services. Compared existing policies and practices with best practices promulgated by industry groups or leaders in the field of contract management.
- Determined if the current reporting and tracking mechanisms are adequate, effective, and efficient at assisting IT project managers (or project managers within Sound Transit overseeing IT-related contracts) in ensuring that Sound Transit is receiving the full value of all items or services agreed to by the vendor.

Auditor's Statement of Compliance with Generally Accepted Government Auditing Standards

We conducted this performance audit in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Team

Mr. Linus Li, CPA, CMA, CFM, CIA – Audit Principal

Ms. Loretta Hall, CISA, CISSP – Audit Manager

Ms. Celina Knippling, CPA – Senior Auditor

AUDIT RESULTS

In this section, the team presents the results of our performance audit of the Central Puget Sound Regional Transit Authority (Sound Transit) Information Technology (IT) Procurement and Contract Management practices. The team notes that in conducting our work, we found that Sound Transit has many areas with strong practices that reflect the organization's commitment to quality. These include the agency's commitment to employing strong documentation standards for purchases and contracts, as well as its proactive efforts to provide continuous reviews and evaluations for opportunities to improve operating efficiency and effectiveness. The team also found areas where the agency can achieve operational and financial improvements and gains in efficiency and effectiveness. These include the agency's computer lifecycle management and IT inventory processes, as well as IT strategic planning and policies related to computer lifecycle, equipment replacement, virtualization, and asset management. Additionally, Sound Transit has opportunities to streamline IT procurement approvals and documentation processes associated with the IT purchases of goods and services, and improve its reporting functions to better assist management in coordinating and overseeing the IT function for the agency.

SECTION ONE: SOUND TRANSIT HAS STRONG INTERNAL AND EXTERNAL REVIEW PROCESSES AND WELL-DOCUMENTED CONTRACT AND PROCUREMENT PRACTICES

As discussed in the Background and Introduction section of this report, Sound Transit currently undergoes many audits and reviews, including reviews by the FTA; annual independent financial statement and single audits; accountability audits by the SAO; agreed-upon procedures reviews of subarea equity; and triennial performance reviews in accordance with FTA requirements for transit agencies receiving federal transit grants. Based on our evaluation of audits and reviews of Sound Transit conducted during the six most recent calendar years—2005 to 2010—the team found that Sound Transit has had few reportable issues. The agency has consistently received unqualified opinions on its financial statements and was in compliance with federal requirements, with the exception of one deficiency noted in the 2007 and 2008 audit reports related to contractors' submittal of weekly certified worksheets. In this case, Sound Transit allowed contractors to submit packages once per month and worksheets weekly, as opposed to submitting worksheets and packages each week. The team noted that the SAO had no findings resulting from its accountability audit work covering years ending December 31, 2005 through December 31, 2009.

In addition to the mandatory audits and reviews, Sound Transit has also begun implementing a stronger internal audit function within the organization. In 2010, Sound Transit began the process of reorganizing its internal audit function, which resulted in it developing a risk assessment and an initial internal audit work plan in 2010. Based on the work plan, Sound Transit issued a work order seeking consultants to assist it in carrying out this audit on Information Technology Procurement and Contract Management. Historically, Sound Transit did not have issues noted by external reviewers and auditors related to IT procurement and

contracting. Nevertheless, it sought to ensure that in moving forward with its long-term goals of building additional infrastructure and transit options for the Puget Sound area, strong fundamental contracting, procurement, and IT management practices are in place as a foundation for its future success.

As part of our audit of IT procurement and contract management, we reviewed Sound Transit's IT contracts; procurements; and associated policies, procedures, and internal controls, and found that the following areas we reviewed reflected Sound Transit's strengths and represented best practices:

- Sound Transit staff are diligent in ensuring that all purchases and payments for IT goods and services are completely documented to ensure that a full audit trail exists showing the rationale for the purchase, the authorization by appropriate management levels, and the execution of the contracts. Our team reviewed a sample of 25 accounts payable transactions, and 90 purchase orders and contracts. In all instances, staff had ensured that all documentation required by internal policies and procedures as well as grant and contract agreements were fully documented electronically and in hard-copy formats. Additionally, all purchases reviewed by our team contained the required approvals, including review and approval by the Deputy Chief Information Officer (CIO) for hardware and software requests.

    - Although Sound Transit has strong internal controls over processing requests and obtaining approvals on IT procurement forms, the audit team noted that the agency lacks a process and tracking mechanism for IT staff to determine whether requests could be met with existing software licenses or hardware prior to obtaining such approvals, as discussed on pages 17 through 21.

- The team's review of the IT business unit's credit card purchases (procurement card transactions) found that the controls in place appeared functional and reasonable and were aligned with best practices. Procurement card transactions were generally for small dollar items, and the same documentation requirements for justifying the purchase (the Hardware/Software Purchase Request form) applied to these purchases. The agency's policies and processes appear reasonable to ensure that employees are not splitting purchases to circumvent dollar thresholds. For example, the agency has multiple reviews within the Procurement and Contracts Division and the IT Division to ensure staff cannot split up purchases in an attempt to circumvent internal controls. The team's analysis of credit card transactions found that the average credit card transaction for the IT unit was small, averaging $250 per transaction during 2005 through 2010.

- Sound Transit's contracting processes meet best practices and agency criteria for documenting, negotiating, and awarding contracts to vendors. Specifically, the team found that Sound Transit's procurement staff adequately ensured that agency staff followed best practices and internal requirements related to obtaining sufficient quotes or complying with competitive bidding requirements. In cases where Sound Transit

purchased goods or services using state or other contracts, or "piggy-backed" on another contract, procurement staff ensured that the piggy-back contract met the agency's competitive bidding requirements.

  - The team noted that Sound Transit fully documented purchases and requests and ensured that it obtained the required number of quotes or used formal bidding procedures as appropriate. However, in making purchases from state contracts that offer a set discount from "regular" prices, the agency has no guarantee that the discount was given off the same price offered to other vendors. Nevertheless, Sound Transit accounting staff verified that the price quoted in the contract and purchase order agreed with the amounts in the invoice. Additionally, our team observed instances where staff negotiated prices with existing vendors rather than accepting historical rates or prices.

- Our review of 90 purchase orders for IT goods and services found that staff had complied with best practices and agency policies and procedures in documenting quotes, independent cost estimates (when applicable), and in following competitive bidding requirements. For items that were required to be competitively bid, the team found full documentation of the bidding and evaluation process, including documentation of the agency's evaluation of proposals and documentation of losing bidders' proposals.

- The team found that Sound Transit has joined with other regional, state, and multi-state groups to achieve lower costs through consortiums with increased bargaining power. This includes purchases that the agency has made in conjunction with the Western States Contracting Alliance and the Washington State Department of Information Services. When purchases were made through piggy-backing off state agreements or other contracts, procurement staff fully documented the master contract and agreement and ensured that the terms agreed to the agency's requirements.

- Sound Transit's processes for documenting and tracking change orders appear to align with best practices. Staff submitted and gained approval for all changes to contracts, including zero dollar changes, such as changes to schedule. Staff routed approvals through the same approval channels used for purchase order and requisition approvals. In testing 90 purchase orders and contracts, we found that all change orders met agency requirements and had appropriate documentation to justify the change order. The audit team's review of a sample of change orders found that the justifications appeared reasonable and well-documented. The team did not observe any instances where Sound Transit approved change orders for items that should have been included in the original scope of work or contract. The team did not observe instances where vendors appeared to be using change orders to make up for deliberate "under bid."

Although the team will be presenting information in the following sections related to issues that hamper the agency's ability to operate as effectively and efficiently as possible, the team noted

that these issues have not prevented staff from generally having access to appropriate levels of technology needed to carry out the agency's mission.

SECTION TWO: SOUND TRANSIT HAS OPPORTUNITIES TO IMPROVE ITS IT GOVERNANCE AND PROCUREMENT POLICIES

Sound Transit has opportunities to improve its IT governance with respect to procurement and asset management. Sound Transit has not recently updated its IT strategic plan and has not fully implemented policies and processes related to computer lifecycle management, equipment replacement, IT inventory, and asset management. Additionally, some of its administrative policies are outdated. In place of a formal equipment replacement policy, Sound Transit generally replaces equipment upon expiration of warranties and based upon equipment specifications and it reviews, and approves requests for equipment replacement through its annual refresh project and standard procurement processes. Further, Sound Transit lacks adequate IT asset management processes and does not have a reliable and updated IT inventory. Consequently, Sound Transit does not have mature IT planning, monitoring, and tracking processes surrounding IT procurement, asset management, and budgeting.

IT Strategic Planning

Sound Transit has not updated its Strategic Technology Plan (STP) to ensure it aligns the IT Division's activities with the mission and goals of the organization. In 2004, Sound Transit commissioned a study to develop an IT strategic plan. The deliverables from that study included the STP document that assessed the state of the agency's technology at that time, and recommended strategies to address key IT Division challenges. Sound Transit's Technology Steering Committee requested a complete review and update to the STP every two years. The STP was reviewed and updated in 2006 and 2008 and Sound Transit created a Technology Governance Team accountable for shared plans that are optimized to support the agency's top priorities. However, Sound Transit had committed to the Technology Steering Committee that it would develop a new STP to address planned agency growth in 2009, and as of November 2010, had yet to do so. Updated IT strategic plans are a critical component of IT management because they provide a framework to guide staff in IT resource management, allocation, and project prioritization. The team found that Sound Transit's IT Division performs annual resource and project planning activities and manages its project portfolio, but the agency lacks an updated IT strategic plan to align the unit's efforts with the organization's current mission, goals, and objectives. A strong IT strategic plan not only outlines how IT staff will support the agency's mission, objectives, and goals, but also focuses on IT resources and ways to innovatively manage operational capabilities, programs, and business processes.

Generally accepted best practices, including the Control Objectives for Information and related Technology (COBIT) 4.1, Section P01, require an IT strategic plan as part of management guidelines and a mature IT model. COBIT identifies the key activities needed for organizations to carry out effective IT governance and IT strategic planning, and describes the inputs and outputs to defining an IT strategic plan. As shown in Exhibit 3, COBIT also identifies the parties

involved in developing an IT strategic plan and classifies them as responsible, accountable, consulted, or informed during the process.

Exhibit 3: COBIT Key Functions and Responsible Parties for IT Strategic Planning

RACI Chart / Activities	CEO	CFO	Business Executive	CIO	Business Process Owner	Head Operations	Chief Architect	Head Development	Head IT Administration	PMO	Compliance, Audit, Risk and Security
Link business goals to IT goals.	C	I	A/R	R	C						
Identify critical dependencies and current performance.	C	C	R	A/R	C	C	C	C	C		C
Build an IT strategic plan.	A	C	C	R	I	C	C	C	C	I	C
Build IT tactical plans.	C	I		A	C	C	C	C	C	R	I
Analyse programme portfolios and manage project and service portfolios.	C	I	I	A	R	R	C	R	C	C	I

A **RACI** chart identifies who is **R**esponsible, **A**ccountable, **C**onsulted and/or **I**nformed.

Source: Control Objectives for Information and related Technology (COBIT) 4.1, Section P01.

The team found that Sound Transit could update and enhance its STP and associated documentation to more clearly outline some of its initiatives. For example, Sound Transit's IT strategic planning documentation does not clearly outline how IT staff will support the agency's mission of lowering costs by implementing virtualization, and does not identify ways to manage and measure its success in carrying out virtualization efforts. The implementation of desktop virtualization can have many benefits to organizations such as Sound Transit with mobile staff and that are experiencing growth. Increasingly, organizations in both private and public sectors are turning to this model as a way of reducing technology costs and increasing flexibility in operations. Although Sound Transit has made significant improvements and efforts regarding IT governance and IT strategic planning over the past six years, it still has room to improve its strategic planning processes and documentation thereof.

IT and Procurement Policies

Sound Transit has opportunities to improve its processes for reviewing and updating its IT management and administrative policies. The team notes that although Sound Transit's Procurement and Contract Administration Manual is updated and current as of March 2010, its administrative policies are, in some instances, outdated. Best practices recommend a periodic review of policies and procedures to ensure that guidance documents remain current and aligned with best practices and compliance requirements. Out of 13 policies relating to IT procurement and contract management reviewed by the team, five had been updated between January 2009 and October 2010, and the remaining policies had last been updated more than two years ago, as shown in Exhibit 4 on the following page.

Exhibit 4: Sound Transit Policy Updates Related to IT Procurement and Contract Management

No.	Description of Policy	Overview	Created	Last Updated	Time Since Last Update
1	Delegation of Authority and Execution of Contracts (#6)	Defines the policy for delegating purchasing authority from the CEO to the organization to facilitate the procurement. Also authorizes the Procurement and Contracts Division to coordinate the negotiation and contract approval process.	September 1997	June 2009	1 year, 4 months
2	Development and Administration of Agreements (#27)	Relates to forming cooperative agreements with other entities. This includes cooperative purchasing agreements and a flowchart illustrating the processes.	March 2007	March 2007	3 years, 7 months
3	E-Mail Use (#17)	Provides a policy covering the provision and usage of electronic mail on the Sound Transit computer infrastructure.	November 2001	November 2001	9 years
4	General Services (#3)	Governs uniform administrative processes to provide mail distribution services, office supplies, in-house copy services, and other administrative services.	September 1997	June 2008	2 years, 4 months
5	Lessons Learned (#29)	Establishes a "Lessons Learned" program to share and use knowledge for continuous improvement by avoiding recurrent or similar problems and encouraging and reinforcing good practices.	February 2009	February 2009	1 year, 8 months
6	Mobile Device	Covers acquisition and usage of mobile devices for use in carrying out Sound Transit's business objectives.	June 2000	April 2004	6 years, 6 months
7	Procurement and Disbursement (#5)	Defines policy regarding the purchasing of goods and services and related disbursements.	September 1997	June 2009	1 year, 4 months
8	Technology Use (#15)	Provides guidance on IT data storage, archiving, retention, and security. (Note: superseded prior policy issued in May 2000).	August 2006	August 2006	4 years, 2 months
9	Small and Attractive Assets (#32)	Provides policy governing the control of small and attractive assets—assets with a value between $300 and $5,000 per item, have a useful life of more than one year, and are vulnerable to loss or theft.	December 2009	December 2009	10 months
10	Participation in Outside Organizations (#31)	Defines participation with outside organizations for a variety of reasons, including cooperative purchasing.	December 2009	December 2009	10 months
11	Agency Records Management (#23)	Establishes a policy to create standard procedures for the management of the agency's public records.	December 2004	December 2004	5 years, 10 months
12	Access to Public Records (#8)	Governs access to public records, protection of public records from damage or disorganization, and the prevention of excessive interference with other essential functions of Sound Transit.	April 1999	July 2004	6 years, 3 months
13	Staff Budget Management (#25)	Establishes a common Sound Transit policy governing the management of staff budgets regarding level of management; reallocation of funds; and executive, departmental, and division controls.	February 2006	February 2006	4 years, 8 months

Sources: Deputy CIO and Sound Transit's Intranet.

Computer Lifecycle Management

Computer lifecycle management includes managing IT assets, maintaining equipment refresh policies, accommodating new users, replacing old equipment, upgrading to newer systems, and making other changes within the IT organization. Managing IT equipment and product lifecycles is an important function of IT Division staff. The goal of lifecycle management is to reduce total IT organizational costs and reduce the risk of failure or data loss. Although Sound Transit is in the process of creating an IT refresh policy, it has not yet been formally documented or approved by agency executive managers.

Sound Transit's current processes for computer lifecycle management are twofold. First, budget and program managers in Sound Transit's business units make equipment and software replacement decisions relying on their business units' hardware or software budgets. Second, the IT Division makes equipment replacement decisions based upon warranty expirations and system minimum requirements. In creating annual budgets, the IT Division reviews the number of, and changes in, system users and uses formulas to calculate required hardware needs based on anticipated staffing changes, number of expected users, and large upcoming projects. The hardware needs assessment is then used to create the next year's budget for IT hardware, software, and services.

Sound Transit business units are individually budgeting for and purchasing IT goods and services, which may be short-sighted from an IT planning perspective, as it may not take into consideration the overall life span of the equipment or agency-wide use of the software. Therefore, IT purchases may not be as cost effective as possible. For example, "one-off" software requests could be reducing Sound Transit's overall buying power compared to centralized software purchases. These purchases also increase support costs as IT staff must support software or systems that are not aligned with agency specifications.

Procurement and IT staff's efforts to control software costs and to ensure consistency in IT software requests can be hampered by these one-off IT requests. Approving items that do not meet the IT unit's standard specifications for software or that could be added on to existing software licensing agreements can result in higher costs to the agency in making the purchase, and higher costs in maintenance and support for the software. However, the team could not determine the extent to which this occurs because Sound Transit does not have a software inventory.

Using warranty expirations as the criteria for equipment replacement can be short-sighted as well, especially in growing organizations such as Sound Transit, where equipment purchases are often made from impromptu requests. Equipment replacement and software purchases should be reviewed in conjunction with their business use and function. For example, staff working remotely or at construction sites on laptops may require more frequent replacement of IT equipment than staff working in administrative business units.

Sound Transit does not currently perform formal lifecycle cost analyses for its most common IT items (for example, desktops, laptops, or servers), and did not do so when converting from a

three-year to a four-year extended warranty purchase. Sound Transit's IT managers made the warranty decision based upon their experience and believe that a formal analysis would support the decision. Extended warranties and maintenance agreements have their pros and cons, and are often recommended when buying new computers. The main benefits are reduced risk and increased convenience, as well as supporting short-staffed agencies that do not have the resources to handle repairs in-house. On the other hand, Sound Transit could save money by taking on some of the risk and workload in-house by not purchasing the extended warranties. However, determining the significance of any potential cost savings would require a formal cost analysis. The team believes that it may be reasonable to expect that the agency could reduce its costs by extending the useful life of the equipment. However, without a formal analysis of the costs associated with maintaining the equipment and whether the equipment will continue to meet future needs of users based on anticipated changes to software, systems, or applications, it is difficult to quantify the true savings or costs associated with any such change.

The underlying accounting structure of IT assets within Sound Transit may be hampering the IT Division's ability to perform cost analyses and implement computer lifecycle management. Divisions appear to take ownership of IT assets assigned to their business units because these items were purchased using their funds. Additionally, staff reported that in some cases business units are requesting and obtaining new IT equipment purchases for temporary or contract staff. Some of these requests could be avoided through more effective mechanisms for repurposing and reallocating out existing IT equipment and software. Based on our analysis, it does not appear that Sound Transit has sufficient controls to redistribute inventories to staff as needed. Because Sound Transit lacks IT asset management procedures and a complete inventory of assets, it appears that the agency risks making excessive equipment purchases.

IT Asset Management and Controls

The IT Division is in the process of implementing an IT asset tracking system, but currently lacks sufficient IT asset management processes to ensure that purchases are necessary because it does not have a reliable and updated IT inventory that it can use to identify the location and user of the items. Instead, IT assets are tracked in several systems and are not all recorded in Sound Transit's Enterprise One enterprise resource planning system. Failure to improve the accuracy of equipment inventory could result in situations where business units may have IT equipment (computers, monitors, phones, etc.) that are surplus and not being used; while other business units are purchasing new IT equipment consisting of similar items. These purchases could be avoided by transferring surpluses among units.

The objectives of IT asset management include providing a vehicle to maintain up-to-date inventory tracking required for normal operations, to provide periodic inventory reports, and to enhance the IT Division's control over the service delivery environment. Asset management includes categorizing all users by needs, for example, identifying task workers who can use low-end desktops, mobile users who need laptops, or power users who need high-performance computers or multiple computers. Aligning users with the computing resources they need

could help the IT Division calculate system needs and determine the most efficient and effective equipment replacement lifecycles. It could also help the IT Division in reducing expenditures for new items that could be met with existing technology. For example, a task user in accounting, who needs a standard desktop computer and whose software needs may not change frequently, may be able to used repurposed computers from a power user in the IT Division who needs an upgraded model. This structure allows the agency to extend the useful life of items used by staff in these units.

The team believes, based on onsite observations and our review of internal controls over IT inventory and procurement, that the agency's internal control procedures do not ensure all IT purchases are necessary and does not account for reassigning surplus equipment. Further, Sound Transit could not provide reports that clearly identified the number of consultants using Sound Transit equipment. Some factors that led to our drawing this conclusion are as follows:

- The audit team observed equipment on-site that appeared not to be in use (for example, equipment that was not plugged in or monitors that were not hooked up to a computer) within several locations.
- Of the 2,948 equipment items (for example, computers, phones, or monitors) listed within Sound Transit's IT asset inventory:
    - 106 were registered to no owner—contained a blank owner in the database.
    - 221 were registered under the IT manager that maintains inventory.
    - More than 100 were registered under the names of two other IT staff.
- Other reports provided by Sound Transit did not identify the number of consultants using Sound Transit equipment, contained conflicting information, and that did not always identify users for each piece of equipment.
    - The IT Division provided a Microsoft Systems Management Server (SMS) network scan—an automated tool that detects equipment connected to a network—that showed a total of 966 computers, laptops, and servers, 312 of which were registered to no owner (blank).
    - The Operations Department provided a headcount report that showed Sound Transit had a total of 695 people working at the Sound Transit facilities and in the field, 240 of which are identified as contractors, consultants, or temporary employees.
    - The IT Division provided a network user listing that showed there were 1,241 unique individuals with network accounts, 554 of which are identified as consultants.
- The IT Division is not monitoring software usage to quantify the usage of applications and to possibly reduce the number of software licenses to save money. If the Sound Transit IT Division could identify those software licenses that are not used, it could redeploy those applications to new users who need them or renegotiate the software license agreement based on the lower usage.

Disposing of retired computers is a key part of the asset management lifecycle, requiring the IT Division to track within its IT inventory the age and location of its computers so that it can identify when to retire these items, and to ensure that these items have been disposed of in accordance with state and federal requirements and data protection best practices. Sound Transit recently entered into a contract with its computer hardware vendor to have it remove and dispose of IT equipment in accordance with best practices requirements. However, as previously mentioned, the audit team noted that Sound Transit does not have a process in place to prolong the life of older computers by giving them to users who have lower computing requirements, such a reassigning a computer from a power user in the IT Division to a task user in Accounting.

Finally, Sound Transit staff reported that they are no longer tracking computer monitors because of the low cost of these items. However, given that these items could be easily misappropriated and used for personal use, staff may wish to consider other internal control procedures for inventory control of monitors. Even though the monitors have a low dollar threshold, implementing procedures similar to those used for other low dollar office supplies and equipment would be prudent.

Recommendations:

2.1 Update IT Strategic Planning Documentation

To ensure that IT procurement efforts are in line with the organization's goals and objectives, and to identify the IT Division's short; medium; and long-term efforts, Sound Transit should update and review its IT strategic planning documentation. As part of the update, Sound Transit should identify its plans related to future virtualization efforts, computer lifecycle management, and IT hardware and software inventory management.

2.2 Update IT and Procurement Related Policies

To ensure that administrative policies reflect current strategic efforts and business processes, Sound Transit should and review and update its IT and procurement related policies periodically.

2.3 Implement Computer Lifecycle Management

Sound Transit should implement equipment and software life-cycle management and planning processes to ensure that the IT Division has a roadmap for equipment management, understands the users it supports, and procures resources that align with their needs.

As part of lifecycle management, Sound Transit should perform financial planning exercises to determine if capital expenses for hardware with complete parts and service contracts for the life of the unit are best suited for its IT infrastructure, consider leasing IT equipment, and maintain a comprehensive IT equipment lifecycle program.

Further, Sound Transit should implement IT procurement procedures that include a step for a central person within the IT unit with appropriate training, authority, and resources to review

the procurement methodology, taking into consideration possible reassignment of equipment or software in lieu of new purchases and ensuring that purchases are made per Sound Transit's specifications.

2.4 Monitor Software Usage

Sound Transit should monitor software usage for four-to-six months to identify savings from software licensing fees.

2.5 Continue to Develop an IT Inventory

Sound Transit should continue to develop its IT inventory to assist the organization with annual planning, configuration approvals, procurement, implementation and decommissioning of old equipment, tracking and reporting of equipment replacement life-cycles, and tracking of hardware and software assets. The IT inventory should include the following capabilities:

- Track assets from the time they are received by an end user or system administrator through the point the asset is "retired" (for example, the item is refreshed), and is therefore removed from the IT inventory.
- Update the IT inventory (as a result of moves, adds, and changes).
- Produce periodic inventory reports.

Sound Transit should also ensure that it is tracking small and attractive assets in accordance with the policy issued in December 2009 to reduce opportunities for theft or misuse of these items. If management determines that conducting inventory counts on monitors is unnecessary, staff should still continue to perform some general procedures to detect potential theft.

2.6 Create an IT Central Store for Managing IT Purchasing

The IT Division should create an IT Central Store for controlling purchases and reallocations of IT equipment and peripherals. Creation of the IT Central Store would eliminate the "ownership" of these IT assets by business units within the budgeting and accounting structure and allow IT staff to allocate software and equipment as needed.

SECTION THREE: PROCUREMENT AND CONTRACTING PRACTICES

Sound Transit may have opportunities to streamline its procedures for obtaining and documenting IT procurement approvals and maintaining documentation associated with the purchases. However, these opportunities need to be carefully considered and weighed against the risks of making the changes. Sound Transit currently requires multiple levels of review and approval for purchases. For example, Sound Transit requires many different forms and approvals for IT purchases for the following reasons:

- Hardware/Software Purchase Request – to justify the need for the purchase and document approval by the business unit program manager and the Deputy CIO or CIO.
- Requisition – to initiate the purchase request.
- 360 Work Order – to track the documentation and the status of the Hardware/Software Purchase Request.

- Request for Purchase Order – to verify by the Procurement and Contracts Division that all items have been received and approved prior to creating a Purchase Order.
- Other Documentation – to retain justification for sole source or piggy-backing and document independent cost estimates.
- Purchase Order – to request a purchase and document approval once the competitive bidding or required price quotes are complete.
- Change Order Request Form – to justify the need for a change to contract price, schedule, or terms.
- Change Order – to electronically enter the change into the accounting system.

The team notes that most of these items are routed in a hard copy format. To ensure that the agency can track the location and current "owner" of the Hardware/Software Request and associated documentation, IT staff create work orders in the agency's "360 Facility" maintenance work order system. Many of the items may be duplicative in part, such as the Procurement and Contracts Division's use of both a Request for Purchase Order and a Purchase Order. However, the team notes that although these tasks and forms may increase the time needed to process transactions, they have not increased the time inordinately. Our review of 90 Purchase Orders and contracts found that the average time to approve hard-copy forms was approximately 42 days. Additionally, we note that the forms contain checklists and documentation of purchases or contract changes that meet all federal and state requirements, which has contributed to Sound Transit having no reportable procurement issues or findings on its many audits and reviews in recent years. Therefore, although the agency should look for opportunities to streamline processes and reduce its reliance on paper-based systems and documentation, it needs to carefully weigh the risks and plan for changes to ensure that it does not harm its ability to maintain the strong internal controls that have resulted in unqualified audit opinions.

Procurement and Contracting Approvals

Sound Transit employees needing to purchase hardware or software are subject to the requirements in the procurement and IT approval processes. The IT staff reported that they feel the current process requires them to "become accountants" as they try to identify the correct accounting codes. On the other hand, these employees also reported that the Procurement and Contracts Director has recently improved procurement processes and worked to educate staff on proper procurement and contracting procedures. For example, the Procurement and Contracts Director created mouse pads that he distributed to agency staff to assist in understanding requirements for quotes or bids.

For some purchases the team reviewed, the length of time to obtain approvals for Purchase Orders appeared lengthy due to the routing of hard-copy documents through various business units and approval chains. In summary, from start to finish of the IT procurement process, the average number of days from the initial creation of the Hardware/Software Purchase Request until date the Purchase Order was completed was 42.2 days. Specifically, we reviewed

purchases and contracts and found that the average number of days for purchasing functions was as follows:

- From submittal of the Hardware/Software Purchase Request until the creation of the Requisition: 22.5 days.
- From creation of the Requisition until approval of the Requisition: 11.9 days.
- From approval of the Requisition until completion of the Purchase Order: 11.9 days.

The team found that the period of submittal and approval of the Hardware/Software Purchase Request took the longest because it was during this time that staff were obtaining approvals for the request as well as researching prices, contacting vendors for quotes, verifying that account codes and budgets were complete and accurate, and determining bid requirements (if applicable). The team found that in some instances, processes took longer periods because staff held the request until the following calendar year to ensure there was sufficient budget available for some purchases.

The length of time appeared to be slower related to Purchase Orders than to Change Orders. The team also reviewed a sample of 20 Change Orders associated with the purchases and contracts in our sample. The average number of days from creation of the Change Order Request until final approval was 1.59 days, including all levels of review up to and including the CEO.

Procurement Documentation and File Management

Procurements are overly reliant on paper-based systems. The agency can save time and money by implementing a document management and retention policy in coordination with the Washington State Archives' assistance and guidance.

Staff reported that they are printing out the entire contract when purchasing from statewide contracts. In some instances, this results in printouts of hundreds of pages of documents of which the agency is purchasing from one or two specific pages within the contract. Per our discussion with the Washington State Archives, printing the entire contract may not be necessary. If Sound Transit verifies that the department issuing the master contract (State Department of Information Services, for example) has adequate documentation policies and procedures that comply with state documentation and retention schedules, then the agency can elect to keep an electronic copy of the contract and print only those pages needed for its own internal documentation standards. The Washington State Archives staff reported that the main goal is to ensure that "if something happens and it ends up in court" that the agency is protected. This provision does not necessarily have to result in the production of hard-copy documents. Additionally, state laws, regulations, and guidance are clear on the use of electronic forms. Documents that are "born electronic" can, and must, remain electronic. This means that the agency has opportunities to eliminate paper documentation related to items created, approved, and stored electronically in systems such as E1, including its Purchase Orders and Requisitions.

Sound Transit's current practice of retaining all email on the Exchange server has placed a large burden on e-mail servers and slowed down the functionality while increasing costs as the IT Division must add capacity to manage the large files. Per the Washington State Archives staff, e-mails must remain in an e-mail readable format (such as an ".msg" file type). However, they do not have to remain on the Exchange or Outlook server. In fact, state staff recommend moving e-mails offline into folders, preferably on shared drives, that are organized by topic or program.

Sound Transit has budgeted and planned for an agency-wide records management project to start in 2011. In 2010, Sound Transit hired a vendor to develop a records management strategy, which was adopted by the agency's Records Management Steering Committee, as well as the executive leadership team. The planned project includes designing an agency-wide records repository, developing department-specific procedures, migrating existing records data into the new system, and implementing tracking metrics. This project will be a multi-year effort. It is unknown at this time when the IT Division will be scheduled for migration to the new electronic records management system within the larger project.

Recommendation:

3.1 Continue Efforts to Streamline Procurement and Documentation Retention Processes

Sound Transit should continue to review document retention standards and electronic filing requirements. It should carefully weigh the risks and plan for changes to ensure that it does not harm its ability to maintain its strong internal controls, as it moves toward maintaining records that are "born electronic" solely in electronic formats without converting to paper documents during the process. Also, Sound Transit should consider working with the Washington State Archives agency to revise its document management and retention policy to allow it to continue to meet its compliance requirements while reducing some of the paper documents.

SECTION FOUR: SOUND TRANSIT COULD IMPROVE IT BUDGETING AND REPORTING

As noted earlier, Sound Transit should make improvements in tracking and monitoring IT assets. Sound Transit also has opportunities to improve its reporting functions to better assist IT staff in coordinating and overseeing the IT function for the agency. Currently, administrative functions associated with budgeting and expenditure processes for IT goods and services are distributed among managers. Further, Sound Transit has limited means to gain a full picture of the agency's total IT expenditures, and limited ability to quantify costs associated IT staff working on IT projects and maintaining agency systems.

IT Accounting Structure

Under Sound Transit's current budgeting and accounting structure, the agency maintains separate budgets for each of its business units. Business unit budgets include line items for employee costs—salaries, benefits, travel, and training—as well as for operating costs, including insurance, indirect administrative costs, audits, and technology. Additionally, Sound Transit maintains separate budgets for programs, operating segments, and projects to better account for

the costs associated with selected construction and transit maintenance activities. Each business unit has a designated budget manager who is responsible for assisting in creating annual budgets and monitoring expenditures associated with his or her business unit.

Sound Transit budgets for its IT Division under a unique business unit account code. Sound Transit's IT employee costs are tracked within this account code as are some of the agency's IT goods and services purchases. However, other purchases of IT goods and services are tracked separately under other business units' account codes. Therefore, identifying total IT expenditures for the agency as a whole is not easily determined from the current reporting structure.

Sound Transit tracks expenditures using account codes that contain the business unit number, the object code that is uses to categorize expenditures, and for some items, a subobject code that it uses to further classify expenditures per category. Identifying the account code combinations (that is, business unit/object code/subobject code) for technology-related expenditures among these codes is not readily apparent or easily determinable for staff and managers.

As discussed earlier, because Sound Transit's IT inventory is not fully accurate and it does not identify and report total IT expenditures, determining the overall IT investment for the organization and quantifying IT assets is not easily accomplished. The current reporting structure, which generally produces reports based on business units, is insufficient to ensure Sound Transit can manage its IT investments and improve cost-efficiency while supporting organizational goals.

Generally accepted best practices, including COBIT 4.1, Section P05, require budgets that reflect ongoing costs of operating and maintaining the current IT infrastructure through the development of an overall IT budget, as well as budgets for individual programs. These best practices allow for ongoing review, refinement, and approval of not only the budgets for individual programs, but also the overall IT budget.

IT Reporting

Sound Transit's IT reporting could be enhanced to assist management in planning and measuring the success of its efforts related to IT procurement. The audit team requested reports for fiscal year 2009-10 of all IT purchases. Sound Transit provided some budget and expenditure reports, but does not currently produce reports that provide a clear picture of agency-wide IT procurement activity. Therefore, the audit team extracted data for the fiscal year from the E1 accounting and budgeting system and performed extensive analysis and detailed reviews of the data to produce and present some examples of reports that show all IT goods and services purchases for the agency.

In the 2009 final adopted budget, Sound Transit reported technology budgets under two main budget categories. Sound Transit budgeted $1.6 million for Research and Technology, which comprises the transit technology initiatives to provide research, funding, and the implementation of new systems to support bus rapid transit type technology applications,

among other services. Sound Transit also budgeted $18.3 million for Finance and Information Technology, which support the agency's mission by providing financial, technological, and risk management services. However, IT procurement budgets for goods and services are not broken out in the budgets or in the financial statements.

Per Sound Transit's accounting system, annual IT budgets increased from about $5 million to $5.8 million over the three most recent years, and actual expenditures rose from approximately $4.7 million to $5.2 million, as shown in Exhibit 5. These expenditures represent both staff costs, as well as purchases of IT goods and services.

Exhibit 5: Budgeted and Annual Expenditures by Year for the IT Division

Year	Budgeted Expenditures	Actual Expenditures	Variance
2007	$ 4,959,985	$ 4,662,330	$ 297,654
2008	5,522,999	4,800,727	722,272
2009	5,804,698	5,176,516	628,182
TOTAL	**$ 16,287,682**	**$ 14,639,573**	**$ 1,648,108**

Source: Sound Transit E1 Report Number BUDG-0007 (001) for Business Unit Number 868158.

The audit team noted that staff costs are not currently tracked by IT project and IT system. Tracking IT staff time by project and system maintained could provide useful information to IT management regarding the true costs associated with Sound Transits systems. However, in order to report system and software maintenance costs related to the 37 staff and their approximate $3 million dollars in compensation costs, Sound Transit would need to implement time tracking and cost allocation functions for its key activities. We noted that Sound Transit may be losing an opportunity to gain useful information related to staff costs associated with project and systems. However, the usefulness of such information could be outweighed by the administrative burden associated with time keeping activities for IT staff. Therefore, the audit team excluded staff costs from its further analysis of IT expenditures.

To gain a full understanding of total IT purchases, the team reviewed the chart of accounts to identify possible object codes that could relate to technology purchases, and then obtained accounting system reports for those object codes to determine whether they contained technology-related expenditures. After identifying these object codes and business units, the team obtained financial reports for transactions in these codes that occurred between January 1, 2007 and September 30, 2010. The team then summarized and reviewed the transactions with the IT Division to identify the transactions related to IT goods and services procurements. Based on the team's analysis, we identified expenditures for IT goods and services as shown in Exhibit 6 on the following page.

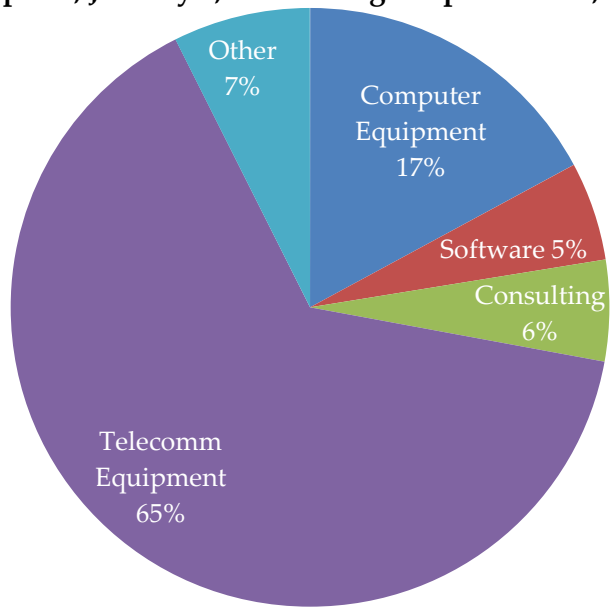
Exhibit 6: IT Goods and Services Purchased January 1, 2007 through September 30, 2010

Division	2007	2008	2009	2010 (9 Months)	TOTAL	%
IT Division	$ 2,237,033	$ 2,226,122	$ 1,799,259	$ 1,531,136	$ 7,793,550	75%
All Other Divisions	435,866	695,372	738,587	734,624	2,604,449	25%
Total	**$ 2,672,898**	**$ 2,921,494**	**$ 2,537,847**	**$ 2,265,760**	**$ 10,397,999**	**100%**

Source: Auditor generated using data from Sound Transit's Enterprise One system.
Note: Due to issues with IT accounting codes discussed within this report, some IT expenditures may not be included. Also, IT Division amounts include over $1 million in software and hardware depreciation.

As previously noted, our team removed the IT unit's staff costs before creating the table shown above. Approximately 75 percent of all expenditures for IT procurement flowed through the IT business unit's account code and budget, with the remaining expenditures flowing through more than 50 other business units. Decentralizing some of the IT budget is not inherently poor practice, but to be more effective, it requires accurate, timely, and relevant reporting for management to understand the nature of expenditures. Currently, without extensive analysis and detailed review, Sound Transit cannot readily produce reports showing all IT goods and services purchased for the agency. Based on our reports of IT expenditures that excluded IT staffing and included IT expenditures recorded under all business units other than IT, we identified IT purchasing by types of IT goods and services for those items shown in Exhibit 6 under the All Other Divisions row. As shown in Exhibit 7, 65 percent of those expenditures were for telecommunications equipment, followed by 17 percent for computer equipment.

Exhibit 7: Sound Transit's IT Expenditures for All Divisions Other Than IT by Account Description, January 1, 2007 through September 31, 2010



Source: Auditor generated using data from the Sound Transit's Enterprise One system.
Note: Due to issues with IT accounting codes discussed within this report, some IT expenditures may not be included.

Additionally, the team notes that the information presented in Exhibits 6 and 7 may understate the agency's total IT expenditures. Because of classification issues and lack of consistent reporting, there may be other IT purchases that should be included in these reports. For example, the team found the following in our review of accounting records:

- Sound Transit tracks budgets and expenditures for several business units related to the One Regional Card for All (ORCA) SmartCard transit pass. Expenditures under the three ORCA business unit codes that could apply to technology purchases totaled $934,460 during January 1, 2007 through September 30, 2010.

- Similarly, we identified expenditures charged to various business units related to ticket vending machine (TVM) maintenance and supplies. The team notes that while these could be characterized under operating costs, they could also be considered technology items given the nature of the machines and the maintenance required. Expenditures for these items during January 1, 2007 through September 30, 2010 totaled $144,225.

- The team excluded some purchases of telecommunications and telephone object codes because we could not determine solely from reviewing electronic data (rather than hard-copy purchase orders and support documents) whether the items were for technology equipment or maintenance, or whether the transactions related to monthly utilities. From January 1, 2007 through September 30, 2010, Sound Transit recorded $686,872 in expenditures for "Telecommunications Equipment Less than $5,000" object codes, and $1.2 million in expenditures for "Telephone" object codes.

- Sound Transit expended funds in several object codes for vendors who primarily offer technology-based services or goods. However, it was unclear from the object codes and entries in the data analyzed by our team whether these were actual technology-related purchases. These transactions included payments for GIS or data mapping and analysis services, payments to technology staffing firms, and payments to suppliers of technology-related equipment. In total, the team identified $1.9 million in charges for these types of expenditures during January 1, 2007 through September 30, 2010.

Including the items listed above, Sound Transit's total expenditures for IT goods and services during January 2007 through September 2010 would increase by $6.4 million, or approximately 60 percent.

Recommendations:

4.1 Create Reports that Capture Agency-Wide IT Expenditures

Sound Transit should create IT budgets and expenditure reports from its accounting system that capture IT investments from an agency-wide perspective and that include IT purchasing trends for the organization as a whole.

4.2 Perform a Study to Determine the Value of Implementing Time Tracking for IT Staff

Sound Transit should perform a study to determine the value of and the costs and benefits associated with implementation of time tracking activities for IT staff. Such information would allow management to better understand IT budgets and expenditures and to capture IT system maintenance costs related to the time IT staff spend per project and per system, and in particular, IT staff costs associated with IT system implementations, or start-up costs associated with implementation of IT systems that are currently not being captured. Such information would bolster the usefulness of management reports mentioned in Recommendation 4.1.

AGENCY RESPONSE

Sound Transit constantly strives to improve our operations and business processes, and we appreciate that in addition to their recommendations, MGT of America has commended Sound Transit for our strong internal control structure and proactive audit approach.

Sound Transit places a high value on the audit process, and has considered these recommendations very carefully. Our comments follow the layout of the report:

Section One: We appreciate the report's recognition that Sound Transit's comprehensive accountability and oversight environment has resulted in our development of contracting processes that meet best practices for documenting, negotiating and awarding contracts to vendors.

Section Two: We believe these recommendations will provide value and plan to take steps to address them in 2011.

Section Three: We agree with the audit team that we should proceed with caution, and seek involvement of the Washington State Archivist as we continue efforts to streamline procurement and document retention processes.

Section Four: We understand the value of the recommendations provided; however, we must balance the delivery of existing project portfolio initiatives against the additional workload involved. We believe existing reporting tools may be utilized to develop agency-wide IT expenditure reports. With respect to tracking IT staff time by project or activity, we will review this proposal in 2012.