

MOTION NO. M2014-24

**Contract for New Ticket Vending Machines and Related Services**

MEETING:	DATE:	TYPE OF ACTION:	STAFF CONTACT:
Committee Name	04/10/2014	Recommend to Board	Brian McCartan, Executive Director of Finance and Information Technology
Board	04/28/2014	Final Action	<b>Chris Ampongan, Manager, Information Technology-Project Management Office</b>

PROPOSED ACTION

Authorizes the chief executive officer to execute a sole source contract with Scheidt & Bachmann USA, Inc. with a term of five years to provide ticket vending machines, repair parts and supplies, hardware and software maintenance services, and software upgrades for the Ticket Vending Machine program in the amount of \$10,042,417, with a 9% contingency of \$897,268, for a total authorized contract amount not to exceed \$10,939,685.

KEY FEATURES SUMMARY

- This contract will allow Sound Transit to purchase ticket vending machines (TVMs) and related equipment, maintenance for new and existing equipment, and software development for the TVM system.
- The contract will provide:
  - 24 new TVMs for the University Link Extension and South 200th Street Link Extension, and 20 TVMs for regional partners and future agency and regional requirements,
  - Repair parts and supplies, including consumables such as paper tickets;
  - Maintenance services for TVM hardware and software for all TVMs, including software and hardware patches and repairs and training;
  - Software development including a new customer interface, an operating system redesign, and fraud prevention software patches.
- The new contract with Scheidt & Bachmann USA, Inc. will improve accountability measures and contract controls, (i.e. performance measure tied to payments).
- The amount requested covers five years for equipment purchases, maintenance, parts, supplies and software needs, and the purchase of 44 TVMs.
- This action is contingent upon Board adoption of Resolution No. R2014-05 which would amend the lifetime budget for ticket vending machines to add \$3,460,200, and amend the annual budget to add \$460,000. This amendment is needed to fund the purchase of 20 TVMs for regional partners, and future agency requirements, hardware and software upgrades, and software development to improve functionality.

BACKGROUND

Sound Transit currently owns and maintains 96 TVMs provided by Scheidt & Bachmann USA, Inc. at existing stations and regional partners. Scheidt & Bachmann was selected as the preferred supplier following an open and competitive procurement process conducted in 1998. Sound Transit's TVMs are currently maintained by Sound Transit staff in the Transit Systems group along with additional maintenance support provided through the existing Scheidt & Bachmann contract for maintenance and software support services which was approved by the Board as a proprietary purchase through Motion No. M2010-57. The first maintenance contract was executed in 2008 under Motion No. M2008-68. Sound Transit will continue to provide all field service support and operations, day to day software/database support, and preventative, remedial, and shop

maintenance.

This contract will replace the existing maintenance and software support services contract with Scheidt & Bachmann for maintenance services. Under this contract, Scheidt & Bachmann will provide training, technical hardware support (for custom Sound Transit functionality), lifecycle part support, manufacturer software support (for specialized backend programming), hardware support, consumables (such as paper tickets), part purchasing, and task order work as needed by Sound Transit for existing and future TVMs supplied by Scheidt & Bachmann.

This action would also provide funding for software development. The software development would include (but is not limited to) a new user interface which improves intuitive use and transaction speed; an upgrade to the operating system, development for mobile fare collection, mobile fare enforcement, and account based fare collection systems.

This new contract includes terms for the purchase of new TVMs, and comprehensive improvements for hardware, software and new software development. The agency needs 24 new TVMs for the University Link Extension and South 200th Street Link Extension (both planned to begin service in 2016). An additional 20 TVMs are also needed for regional partners, and Sound Transit's future needs. The contract also includes spare parts and supplies necessary for immediate repairs to operational TVMs.

Sound Transit's regional partners have requested ticket vending machines for their main transportation hubs. Sound Transit, who is the owner of the contract, will be purchasing the TVMs on their behalf, and the regional partners will reimburse Sound Transit for the total cost. Sound Transit currently plans to purchase eight TVMs for regional partners through this contract. Sound Transit may also purchase an additional twelve TVMs for replacement machines, or future Sound Transit expansion.

Sound Transit is not pursuing the purchase of TVMs for East Link or North Link at this time because of possible changes with fare collection technology in the future. New strategies will be evaluated and developed before any other long term commitment is made on Ticket Vending Machines.

#### Sole Source Justification

The sole source contract with Scheidt & Bachmann USA, Inc. is recommend because ticket vending machines with ORCA smart card functionality and the network architecture adaptations used by Sound Transit are not practicably available from another vendor. The agency issued a "Notice of Intent to Award without Competition, Negotiated Contract. The notice was released with Sound Transit's requirements needed for Ticket Vending Machines. These requirements outline current TVM functions and capabilities (including branding, ORCA functionality/integration, coin/cash management, credit card functionality, ticket dispensing, and consistent customer user interface). No firms responded to the notice.

In addition as discussed below, it would be costly and risky to have the 44 new TVM machines be provided by a second vendor while maintaining the current 96 TMVs with Scheidt & Bachmann. Sound Transit has identified the following risks if a new vendor was used for this procurement:

- 1) Maintenance: Moving to a dual provider would result in a substantial increase in maintenance costs. It would require Sound Transit to duplicate its inventory, train staff, and add other support systems to maintain the new, different TVMs and associated back end software.

- 2) System Integration: A dual vendor TVM system would pose significant integration challenges between the two systems. A TVM fare collection system consists of TVM hardware and also proprietary data collection software that processes transaction data. A new TVM system would require TVM hardware and data collection and processing system. A new data collection and processing system would result in additional staff overhead to reconcile data from two TVM reporting systems. The cost of this new back end processing software would be in addition to the TVM hardware from the new supplier.
- 3) Testing and Start-up: Sound Transit has made extensive and critical network architecture improvements and the current Scheidt & Bachmann technology has been extensively tested and validated. Introduction of a new TVM platform would necessitate extensive proto-typing, testing, and validation and involve substantial costs and risks.
- 4) ORCA Capability: All of Sound Transit's TVMs are able to dispense and revalue ORCA cards, the region's Smart Card fare rider technology. Duplicating the ORCA functionality with a second vendor is not feasible at this time. The risks and costs of the new vendor creating this new interface within their TVM are high.
- 5) Security: The requirements of credit card security, as defined by Payment Card Industry (PCI) Data Security Standards, are increasingly complex and critical. The introduction of a new, second vendor into the payment system would increase the risks of maintaining PCI compliance. The introduction of a second TVM vendor would require a full duplication of the hardware (backend servers, front end encryption systems) and the oversight/compliance review of the existing TVM network.
- 6) Customer Experience: The current system has a uniform and established user interface and appearance which is part of Sound Transit's branding. Any alternative Ticket Vending Machine platform that is introduced needs to emulate this "look and feel" as it needs to be consistent with Sound Transit branding. Implementation of a dual provider TVM system would have substantial risks of being unable to deliver a uniform customer experience.

## FISCAL INFORMATION

This action is a new sole source contract with Scheidt & Bachmann USA, Inc. The contract covers 17 TVMs and two spares and associated software for University Link Extension, and five TVMs and associated software for the South 200<sup>th</sup> Link Extension. These projects have sufficient budget to meet the obligations of this action.

Additionally, the contract covers fare collection services in the Service Delivery Budget for software and hardware maintenance, training and support and maintenance. The 2014 operating expenses of \$475,000 were previously budgeted in the 2014 budget and any future operating expenses in subsequent years will be included in those future annual budgets, as required. These costs are distributed to the modal operational budgets.

Additionally, this contract covers the purchase of 20 ticket vending machines (including eight in 2014) for regional partners, software upgrades, and software and hardware maintenance. A budget amendment is required for the purchase of the 20 TVMs, software upgrades, and software and hardware maintenance. Board authorization to amend the budget is being sought in Resolution No. R2014-05. Resolution No. R2014-05 would increase the Ticket Vending Machine Project lifetime budget by \$3,460,200 and 2014 annual budget by \$460,000.

The budget amendment being sought under Resolution No. R2014-05 is reflected in the table below. With the adoption of Resolution No. R2014-05, this action is fully funded within existing agency resources.

**Budget Table**

TOTAL Construction Phase	2014 TIP	Committed to Date (including Contingencies)		This Action	Committed Plus Action	Uncommitted/ (Shortfall)
University Link	1,158,183	969,568	1,824	971,393	186,790	
South 200th Link Ext	283,818	225,168	422	225,590	58,228	
Ticket Vending Machines	12,678	7,625	3,460	11,086	1,593	
<b>Total Capital Expenditures</b>	<b>1,454,679</b>	<b>1,202,362</b>	<b>5,707</b>	<b>1,208,068</b>	<b>246,611</b>	

Service Delivery Budget	Adopted 2014 Budget	Spent and Committed to date in 2014	This Contract Action 2014 Impact	Future Contract Remaining	Remaining 2014 Budget
Fare Collection Costs	3,188	328	475	4,758	2,860
<b>Total Operating Expenses</b>	<b>3,188</b>	<b>328</b>	<b>475</b>	<b>4,758</b>	<b>2,860</b>

Contract Spending Plan	Total Contract Authority	Total Committed	This Action 2014 Impact	Remaining Action	New Contract Authority Total
<b>Scheidt &amp; Bachmann USA</b>					
Operating Expenses		-	475	4,758	5,233
Capital Expenditures	-	-	460	5,247	5,707
<b>Total Contract</b>	<b>-</b>	<b>-</b>	<b>935</b>	<b>10,005</b>	<b>10,940</b>

Notes:  
 Amounts are expressed in Year of Expenditure \$1000s.  
 Committed to Date amounts are as of Feb 28, 2014 and include authorized contingencies.  
 Operating Expenses in subsequent years will be included in those future annual budgets for approval.  
 Project budgets are located on pages 34, 37, and 95 of 198 of the 2014 Transit Improvement Plan.  
 Service Delivery Budget is located on page 27 of the Annual Budget

**SMALL BUSINESS/DBE PARTICIPATION**

Sound Transit promotes and encourages small business participation, which also includes Disadvantaged Business Enterprises (DBEs). Small Business and DBE goals are based upon an examination of subcontracting opportunities contained in the work of this contract and the number of Small Businesses/DBEs available to perform such subcontracting work.

On previous contracts for the purchase and installation of TVMs, while there were limited opportunities for Small Business/DBE participation, Scheidt & Bachmann identified installation as a major part of the effort to involve small businesses. Because the installation will now be performed by Sound Transit staff, there is no opportunity for Small Business/DBE Participation for this element in the scope of work on this contract. On previous maintenance and software support contracts for Scheidt & Bachmann’s services, Sound Transit determined that Small Business and DBE subcontracting opportunities were infeasible or improbable based upon the scopes of work described on those contracts, and Small Business/DBE goals were not established or required.

For this contract, Scheidt & Bachmann has been directed to provide a plan consistent with USDOT and FTA regulations and guidance for DBE and Small Business participation. That plan, subject to acceptance by Sound Transit will be incorporated into the contract.

**Apprentice Utilization Commitment**

Not applicable to this action.

## PUBLIC INVOLVEMENT

A new user interface prototype is being developed through a series of user-experience testing. User-experience testing has been conducted under different scenarios (including Seahawks games, tourist events, Sounder games, and rush hour commute times) in order to determine ease of use, functionality, cycle times, and expose any deficiencies. This is being done to improve Sound Transit's rider experience, which encourages utilization of public mass transport.

The software development component of this contract will use the user-experience testing to develop a new customer interface and redesign of the operating system.

## TIME CONSTRAINTS

Twenty-two of the 44 TVMs being purchased will go directly to the University of Washington, Capitol Hill, and Angle Lake Stations as part of University Link and the South 200<sup>th</sup> Link Extension. Two TVMs are going to be utilized by Sound Transit as system test machines for the entire network.

A one month delay in this procurement will impact the purchase, manufacturing, delivery and installation cycle needed for the 22 TVMs. Sound Transit's TVMs are unique to the whole country and are custom built. This customization requires long lead times necessary to procure, manufacture, test and install TVMs to make them ready for public use. A one month delay will necessitate extreme compression of the schedule to meet the University Link Extension and the South 200th Link Extension opening.

## PRIOR BOARD/COMMITTEE ACTIONS

Motion No. M2010-57: Authorized the chief executive officer to execute a six-year contract with Scheidt & Bachmann USA, Inc. to provide proprietary maintenance and software support services on existing and future Ticket Vending Machines (TVMs) in the amount of \$3,797,460, with a 5% contingency of \$189,873, for a total authorized contract amount not to exceed \$3,987,333.

Motion No. M2008-68: Authorized the Chief Executive Officer to execute a contract amendment with Scheidt and Bachmann USA, Inc. to extend provisions for system operations and maintenance services for one year; and their provision of parts, supplies and software support for up to five years. The contract amendment is in the amount of \$3,333,000 with a contingency of \$333,000 totaling \$3,666,000, for a new total authorized contract amount not to exceed \$20,219,000.

Motion No. M2008-15: Authorized the Chief Executive Officer to execute a contract change order with Scheidt and Bachmann USA, Inc. to upgrade Sound Transit's ticket vending machines and central data collection system for integration into the new Regional Smart Card system in the amount of \$962,000, with a contingency of \$96,200 totaling \$1,058,200, for a new total authorized contract amount not to exceed \$16,552,987.

Motion No. M2007-115: Authorized the Chief Executive Officer to execute a contract amendment with Scheidt and Bachmann USA, Inc. to upgrade Sounder ticket vending machines, the Central Data Collection System, and ticket office machines, in the amount of \$1,742,453, with a 5% contingency of \$87,123 totaling \$1,829,576, for a new total authorized contract amount not to exceed \$15,494,787.

Motion No. M2006-26: Authorized the Chief Executive Officer to execute a contract amendment with Scheidt and Bachmann USA, Inc. to implement Phase II of the fare vending and validation equipment contract to deliver, install and test fare collection equipment for the Central Link Light

Rail Initial Segment and Airport Link in the amount of 4,550,211, with a contingency of \$315,000, for a new total authorized contract amount not to exceed \$13,665,211.

Motion No. M98-92: Authorized the Executive Director to award a contract between Sound Transit and Scheidt & Bachmann U.S.A. for the automatic fare vending equipment for the *Sounder* service in an amount not to exceed \$8,800,000, with options to provide additional equipment for Link light rail service. The contract price includes a 10% contingency.

#### ENVIRONMENTAL REVIEW

JI 3/28/2014

#### LEGAL REVIEW

BN 4/08/14

## **MOTION NO. M2014-24**

A motion of the Board of the Central Puget Sound Regional Transit Authority authorizing the chief executive officer to execute a sole source contract with Scheidt & Bachmann USA, Inc. with a term of five years to provide ticket vending machines, repair parts and supplies, hardware and software maintenance services, and software upgrades for the Ticket Vending Machine program in the amount of \$10,042,417, with a 9% contingency of \$897,268, for a total authorized contract amount not to exceed \$10,939,685.

### **BACKGROUND:**

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with Sound Transit branding. Implementation of a dual provider TVM system would have substantial risks of being unable to deliver a uniform customer experience.

This action is contingent upon Board adoption of Resolution No. R2014-05 which would amend the lifetime budget for ticket vending machines to add \$3,460,200, and amend the annual budget to add \$460,000. This amendment is needed to fund the purchase of 20 TVMs for regional partners, and future agency requirements, hardware and software upgrades, and software development to improve functionality.

**MOTION:**

It is hereby moved by the Board of the Central Puget Sound Regional Transit Authority that the chief executive officer is authorized to execute a sole source contract with Scheidt & Bachmann USA, Inc. with a term of five years to provide ticket vending machines, repair parts and supplies, hardware and software maintenance services, and software upgrades for the Ticket Vending Machine program in the amount of \$10,042,417, with a 9% contingency of \$897,268, for a total authorized contract amount not to exceed \$10,939,685.

APPROVED by the Board of the Central Puget Sound Regional Transit Authority at a regular meeting thereof held on April 24, 2014.



Dow Constantine  
Board Chair

ATTEST:



Marcia Walker  
Board Administrator