SUMMARY STATEMENT

ITEM NO. PATCO-15-009 SUBJEC T: PATCO Ticket Vending Machine Multi-language Conversion

COMMITTEE: Operations and Maintenance

COMMITTEE MEETING DATE: April 8, 2015

BOARD ACTION DATE: April 15, 2015

PROPOSAL: That the Board authorizes staff to negotiate a contract with Cubic Transportation Systems, Inc. to change the Automated Fare Collection Ticket Vending Machine software to include the following languages: Russian, Korean, Vietnamese and traditional Chinese.

Amount: $443,071.00

Firm: Cubic Transportation Systems, Inc. San Diego, CA

PURPOSE: The purpose of this contract is to upgrade the current Ticket Vending Machine software to add additional languages to meet Federal Transit Administration Limited English Proficient guidelines.

BACKGROUND: Under Title VI requirements and guidelines for Federal Transit Administration recipients, transit operators must take reasonable steps to ensure that Limited English Proficient (LEP) persons have meaningful access to transit programs and activities. This means that public participation opportunities normally provided in English, should be accessible to persons who have a limited ability to speak, read, write or understand English. The Ticket Vending Machine is the primary method for customers to buy or load fare products to enter the system. The current TVM software configuration offers English and Spanish translations of all the screens.

Safe Harbor provisions require written translations of vital documents for each LEP group that meets the threshold of the lesser of 5% or 1,000 individuals. Vital documents include screens on the vending machines to buy fare products necessary to enter the system. Per the U.S. Census Bureau American Community Survey, 2006-2010 in the PATCO service area, the following languages must be included in the LEP plan: Spanish, Korean, Russian, Chinese (standard) and Vietnamese. The current TVM configuration only includes an English-Spanish translation. Therefore, the TVM software must be updated to include Korean, Russian, Chinese (standard) and Vietnamese.
Cubic Transportation Systems is the current manufacturer/integrator of PATCO’s AFC system and the TVM software is proprietary. All changes to TVM software must be performed and certified by Cubic Transportation Systems. Staff has reviewed and evaluated Cubic’s proposal and determined it to be fair and reasonable.

**SUMMARY:**

- **Amount:** $443,071
- **Source of Funds:** 2013 Revenue Bonds
- **Capital Project #:** TE15XX
- **Master Plan Status:** N/A
- **Other Fund Sources:** N/A
- **Duration of Contract:** 1 year
- **Other Parties Involved:** N/A
RESOLUTION

RESOLVED: That the Board of Commissioners of the Port Authority Transit Corporation authorizes staff to negotiate a contract with Cubic Transportation Systems whereby Cubic will upgrade PATCO’s Ticket Vending Machine software to include four additional languages in the amount of $443,071 per the attached Summary Statement; and be it further

RESOLVED: The Chair, Vice Chair and the President must approve and are hereby authorized to approve and execute all necessary agreements, contracts, or other documents on behalf of PATCO. If such agreements, contracts, or other documents have been approved by the Chair, Vice Chair and President and if thereafter either the Chair of Vice Chair is absent or unavailable, the remaining Officer may execute the said document(s) on behalf of PATCO along with the President. If both the Chair and Vice Chair are absent or unavailable, and if it is necessary to execute the said document(s) while they are absent or unavailable, then the President shall execute such documents on behalf of PATCO.

SUMMARY: Amount: $443,071
Source of Funds: 2013 Revenue Bonds
Capital Project #: TE15XX
Master Plan Status: N/A
Other Fund Sources: N/A
Duration of Contract: 1 year
Other Parties Involved: N/A

KFI
MEMORANDUM: PURCHASES GREATER THAN $25,000

PORT AUTHORITY TRANSIT CORPORATION

TO: John Rink, GM-PATCO
    James White, Chief Financial Officer
    John T. Hanson, CEO-DRPA/President-PATCO

FROM: Kathleen Imperatore, Division Director/Project Manager

SUBJECT: SOLE SOURCE APPROVAL - Cubic Transportation Systems

PURCHASE REQUISITION:

DATE: Tuesday, February 17, 2015

Background:

Under federal regulations, transit operators must take reasonable steps to ensure that Limited English Proficient (LEP) persons have meaningful access to their programs and activities. This means that public participation opportunities, normally provided in English, should be accessible to persons who have a limited ability to speak, read, write, or understand English. Currently, the Ticket Vending Machines offer English and Spanish translations of the screens.

Justification for Proprietary/Sole Source:

Due to the Safe Harbor requirements and the U.S. Census Bureau American Community Survey, 2006-2010 in the PATCO service area, the following languages also must be included in the LEP plan: Korean, Russian, Chinese, Vietnamese. The Ticket Vending Machine software is proprietary to Cubic. All changes to software must be performed and certified by Cubic Transportation Systems.

Cost:

$443,071.00

Kathleen Imperatore, Division Director

John Rink, GM-PATCO

James White, CFO

John T. Hanson, CEO-DRPA/President-PATCO
February 17, 2015

Port Authority Transit Corporation
P.O. Box 4262
Lindenwold, NJ 08021-0218

Attention: Ms. Kathleen Imperatore, Director, Fare Collections

Subject: BAFO for Additional Languages for PATCO Ticket Vending Machines

Reference: January 27, 2015 Correspondence # PATCO-4990-0115

Cubic Transportation Systems, (Cubic) is pleased to submit this Best and Final Offer to add Additional Languages for the Port Authority Transit Corporation (PATCO) Ticket Vending Machines as provided in the Referenced January 27, 2015 proposal for the revised total firm fixed price of $443,071 in accordance with the attached revised Price Proposal.

Cubic requests the following payment milestones be incorporated as part of the resulting award. This proposal is based on Cubic's Standard Terms and Conditions and Software Licensing requirements and may be considered valid for ninety (90) days from the date of this letter. All other terms of the Referenced Technical Proposal remain unchanged.

<table>
<thead>
<tr>
<th>No.</th>
<th>Event</th>
<th>Percent</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>NTP</td>
<td>40%</td>
<td>$177,229</td>
</tr>
<tr>
<td>2</td>
<td>Formal Test in San Diego</td>
<td>20%</td>
<td>$86,614</td>
</tr>
<tr>
<td>3</td>
<td>Completion of Formal Tests</td>
<td>20%</td>
<td>$86,614</td>
</tr>
<tr>
<td>4</td>
<td>Completion of PATCO Tests</td>
<td>10%</td>
<td>$44,307</td>
</tr>
<tr>
<td>5</td>
<td>Completion of Warranty</td>
<td>10%</td>
<td>$44,307</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>100%</td>
<td>$443,071</td>
</tr>
</tbody>
</table>

Should you have any questions or desire additional information, feel free to contact John Wisner at 856-614-4474; email john.wisner@cubic.com or the undersigned at 931-454-1500; email susan.tudor@cubic.com.

Kindest Regards,

Susan E. Tudor
Sr. Manager, Contracts
Cubic Transportation Systems, Inc.

Enclosure: BAFO Price for the Port Authority Transit Corporation for Additional Languages for the Ticket Vending Machines

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Price Sheet and Payment Milestones

Please refer to the following page for Cubic's price sheet and payment milestones.
### Table 1. Additional Languages for TVMs Price

<table>
<thead>
<tr>
<th>Description</th>
<th>Price</th>
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</thead>
<tbody>
<tr>
<td>Program Management</td>
<td>$31,214</td>
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<tr>
<td>Nonrecurring Engineering</td>
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<tr>
<td>Test</td>
<td>$95,354</td>
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<td>Documentation</td>
<td>$19,189</td>
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<tr>
<td>Warranty</td>
<td>$27,315</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$443,071</strong></td>
</tr>
</tbody>
</table>

The payment milestones that Cubic proposes are as follows:

### Table 2. Additional Languages for TVMs Payment Milestones

<table>
<thead>
<tr>
<th>No.</th>
<th>Event</th>
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<th>Amount</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>4</td>
<td>Completion of PATCO Tests</td>
<td>10%</td>
<td>$44,307</td>
</tr>
<tr>
<td>5</td>
<td>Completion of Warranty</td>
<td>10%</td>
<td>$44,307</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td><strong>100%</strong></td>
<td><strong>$443,071</strong></td>
</tr>
</tbody>
</table>

Document Number: 8500-550058.00 02/11/2015

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Proposal to
Port Authority Transit Corporation
for Additional Languages
for the Ticket Vending Machine
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REVISION STATUS

<table>
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<tr>
<th>Revision</th>
<th>Date</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.00</td>
<td>15 Dec 2014</td>
<td>Initial release</td>
</tr>
<tr>
<td>B.00</td>
<td>27 Jan 2015</td>
<td>Removed Section 6</td>
</tr>
</tbody>
</table>

Document approved for release by:

Author
John Wisner

Project Engineer
Peter Lo

Program Manager
John Wisner

Technical Editor
Veronica Haynes

Cubic Transportation Systems, Inc.
5650 Kearny Mesa Road
San Diego, CA 92111
USA

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1. OVERVIEW
The purpose of this proposal is in response to Port Authority Transit Corporation's (PATCO) request to add the following languages to the ticket vending machines (TVM): Russian, Korean, Vietnamese, and Chinese-Traditional. Currently the vendors have English and Spanish. PATCO wants a total of 6 languages.

1.1 ACRONYMS AND ABBREVIATIONS
ARQ            action request
Cubic          Cubic Transportation Systems, Inc.
NTP            notice to proceed
PATCO          Port Authority Transit Corporation
TVM            ticket vending machine

1.2 REFERENCED DOCUMENTS
[2] Screen Flow Diagram and Print Format for the Delaware River Port Authority/Port Authority Transit Corporation Ticket Vending Machine, 1100-00016

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2. ASSUMPTIONS AND DEPENDENCIES

The following assumptions have been reviewed and agreed between PATCO and Cubic:

1. PATCO is responsible for all text and audio translations.
2. Cubic will provide updated text/audio scripts for translation.
3. Cubic will add the text and audio files to the vendors, but we do not have the expertise to proof read the text or listen to the audio for accuracy. PATCO is responsible for the content.
4. PATCO is also responsible for documenting how money values are displayed on the screen.
5. If a text string will not fit onto a display area, Cubic will inform PATCO and they will be responsible for providing a string that will fit into that display area.
6. Due to the large number of files, the audio files will be in the main install and not in downloadable software.
7. No training will be required.
8. Upgrade applies to both the paid and un-paid vendor.
9. There are two types of TVMs in the system: paid and un-paid. The same software will be installed on each type of TVM.
10. The receipt will remain in English.
11. The patron interface messages will also remain in English.
12. PATCO will provide the font required to display the foreign languages.
13. English and Spanish will only be tested on screens that are changed.
3. REQUIREMENTS

The TVM software will be changed to include the following languages:

- Russian
- Korean
- Vietnamese
- Chinese-Traditional
- English — currently supported
- Spanish — currently supported

3.1 DELIVERABLES

Cubic will provide the deliverables listed in Table 3-1.

Table 3-1. List of Deliverables

<table>
<thead>
<tr>
<th>Description</th>
<th>Qty</th>
<th>Responsibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>TVM Software</td>
<td>1</td>
<td>Cubic</td>
</tr>
<tr>
<td>Operation Manual for the Port Authority Transit Corporation Ticket Vending Machine, 9400-45007</td>
<td>1</td>
<td>Cubic</td>
</tr>
<tr>
<td>Screen Flow Diagram and Print Format for the Delaware River Port Authority Port Authority Transit Corporation Ticket Vending Machine, 1100-50018</td>
<td>1</td>
<td>Cubic</td>
</tr>
</tbody>
</table>

3.2 SCHEDULE

The delivery schedule will be provided 30 days after notice to proceed (NTP).
4. TECHNICAL SOLUTION OVERVIEW

4.1 HARDWARE
No additional hardware will be provided under this proposal.

4.2 SOFTWARE

4.2.1 Language Support
TVM software will be updated to incorporate Russian, Korean, Vietnamese, and Chinese-Traditional. This is in addition to English and Spanish which are already included. See references [1] and [2]. Figure 4-1 depicts the current screen from which language is selected.

![Figure 4-1. Current Language Screen](image)

To accommodate selecting from a number of languages, the main screen will be modified to change the Spanish selection to a language menu selection as shown in Figure 4-2.
Select Option or Tap Freedom Card

<table>
<thead>
<tr>
<th>Ticket Options</th>
<th>Freedom Card Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchase Ticket</td>
<td>Purchase Freedom Card</td>
</tr>
<tr>
<td>Purchase Pass</td>
<td>Add Value</td>
</tr>
<tr>
<td>Purchase SEPTA Transfer</td>
<td>Add Pass</td>
</tr>
<tr>
<td>Purchase Special Ticket</td>
<td>Card Balance</td>
</tr>
<tr>
<td>Help</td>
<td>Language</td>
</tr>
</tbody>
</table>

Figure 4-2. Main Screen with Language Selection

The language selection screen will be similar to that shown in Figure 4-3.
Figure 4-3. Language Screen
5. SCOPE OF WORK BY WBS

5.1 PROGRAM MANAGEMENT WBS 1000
Cubic Program Management and TN Contracts Management will support this project.

5.2 ENGINEERING WBS 2000
The Engineering process includes the following:
- Project Engineering/Supervision LOE
- Resolve Action Items
- Implement software enhancements and/or modifications
- Perform unit test of each modified device
- Update design documents to reflect the implemented changes
- Perform Configuration Management/Software Releases
- Provide test support
- Provide ARQ resolution
- Provide remote support during installation and go-live launch into production

5.3 TEST WBS 3000
The Cubic testing process shall include the following:
- Certify each modified software component
- Perform ARQ verification

The software testing will be conducted at the Cubic facility in San Diego, CA

5.4 TRAINING WBS 4000
No training shall be provided for this proposal.

5.5 DOCUMENTATION WBS 5000
The following documentation shall be provided:
- Operation Manual for the Port Authority Transit Corporation Ticket Vending Machine, 9400-45007, will be updated to reflect the new language functionality.
- Screenshot Flow Diagram and Print Format for the Delaware River Port Authority/Port Authority Transit Corporation Ticket Vending Machine, 1100-50018

5.6 PRODUCTION WBS 6000
- None

5.7 MAINTENANCE WBS 7000
- None

5.8 INSTALLATION WBS 8000
- None
5.9 WARRANTY WBS 9000

- Cubic standard warranty on the software.