

DEPARTMENTAL INPUT
CONTRACT/PROJECT MEASURE ANALYSIS AND RECOMMENDATION

Rev 1

New contract
 OTR
 CO
 SS
 BW
 Emergency
 Previous Contract/Project No:

Re-Bid
 Other
 LIVING WAGE APPLIES: ___ YES NO

Requisition/Project No: RQMT1300013 TERM OF CONTRACT: 3 years with 5 one year options-to-renew

Requisition/Project Title: Hardware/Software Maintenance, Support, Parts and Professional Services for Automatic Passenger Counting System (APC)

Description: To establish an Automated Passenger Counting system (APC) hardware/software maintenance, parts, training, support and professional services agreement for continued service to Miami-Dade County Transit Department (MDT).

User Department(s): MDT
 Issuing Department : ISD
 Estimated Cost: \$298,589.00

Contact Person: Margaret Brown Phone: 305-375-4914
 Funding Source: Operating/CITT

ANALYSIS

Commodity/Service No: <u>920-45</u>		SIC: _____	
Trade/Commodity/Service Opportunities			
Contract/Project History of Previous Purchases For Previous Three (3) Years Check Here: ___ if this is a New Contract/Purchase with no Previous History			
<u>EXISTING</u>		<u>2ND YEAR</u>	
<u>3RD YEAR</u>			
Contractor:			
Small Business Enterprise:			
Contract Value:			
Comments: The Automated Passenger Counting System (APC) was acquired in 2008 as part of the County's Automatic Fare Collection System (AFCS) under RFP-8481-2/22. The warranty period has expired. Presently, there are no services to MDT.			
Continued on another page (s): ___ Yes <input checked="" type="checkbox"/> No			

RECOMMENDATIONS

SBE	Set-Aside	Sub-Contractor Goal	Bid Preference	Selection Factor
		%		
		%		
		%		
		%		

Basis of Recommendation: _____

Signed: Margaret Brown

Date to DBD: April 25, 2013

Date Returned to DPM: _____

RECEIVED
 DEPT. BUSINESS DEV.
 2013 APR 25 PM 12:54

SUMMARY

Action: Bid Waiver Request to Purchase Hardware/Software Maintenance, Support and Professional Services for Automatic Passenger Counting System (APC)

Requisition: RQMT1300013

Committee/Committee Date: N/A

* DPM internal Processing due date:

Projected BCC Date: N/A

Purpose of the Acquisition: To establish an Automated Passenger Counting system (APC) hardware/software maintenance, support and professional services agreement for continued service to Miami-Dade County Transit Department (MDT).

Recommended Contractor: Urban Transportation Associates (UTA)

Contract Term: Three years with, 5 years options to renew

Contract Amount: \$298,589.00

Estimated Cumulative Value: \$848,033.00*

(*Should all options be exercised by the County)

BCC Approval to Advertise Date: N/A

Background:

APCs are devices that automatically count the number of passengers as they board and disembark from vehicles at each stop during a trip. An on-board microcomputer is the central processing unit of an APC system. It analyzes the signals received from the sensors in real time, then creates an electronic record at each stop and stores the results in memory. Data stored typically include the following elements: vehicle location, date and time the vehicle stops, time the doors open and close, number of passengers boarding, and number of passengers disembarking.

Miami-Dade Transit's (MDT) Automated Passenger Counting System (APC) was acquired in 2008 as part of the County's Automatic Fare Collection System (AFCS) under RFP-8481-2/22. The awarded vendor of this RFP was Cubic Transportation System (Cubic). The RFP included the acquisition and implementation of the APC system with a three-year warranty period. Cubic is no longer providing this service because the warranty has expired. Cubic was contracting with the manufacturer of the

APC system, Urban Transportation Associates (UTA) who was ultimately providing the maintenance and support services for the system.

The APC is presently used on County buses and Metromovers. The system collects detailed operating data that supports analytic requirements of both MDT's Planning and Scheduling and Performance Analysis Divisions. APC-generated reports and analyses are utilized for both internal and external reporting requirements. The APC System integrates with the County's Digital Recorders Annunciator system as well as the Cubic's AFCS. The reference files are generated by APC utilizing information from Trapeze, which is MDT's service scheduling software. MDT wants to continue with the APC system and receiving the maintenance and support services which requires contracting directly with UTA due to the system being proprietary to this firm. MDT is requesting to establish a new hardware/software maintenance, parts, training and professional services contract with UTA.

Market Research:

Market research identified other APC system providers (i.e. PassCountPro, Microtronix Vehicle Technologies, ILI Technologies, Inc., Wardrop Applied Systems, Inc., InfoDev, INIT, Clever Devices, etc.). These providers offer maintenance and support service for their systems. Three of the APC providers were contacted (InfoDev, INIT, and Clever Devices) and only one, Clever Devices, was willing to bid on giving maintenance and support services, but acknowledged that they would have to go through the manufacturer (UTA) for parts and pricing. Most firms will not agree to maintain another company's product because they cannot guarantee optimal operations and do not have access to the proprietary software codes. UTA is the manufacturer of MDT's APC system and the most qualified to maintain their system.

Some users found of UTA with comparable contracts were the City of Durham, NC; Alameda-Contra Costa Transit District, CA; and the City of Austin Public Transit, TX. All were sole source contracts for maintenance and support service agreements with UTA.

Recommendation:

The APC system has proven to be the best method of collecting ridership data for transit operations. This has proven to be a valuable tool for MDT. It improves the department's planning and scheduling while giving the department timely and accurate ridership figures as opposed to manually collecting this data alone.

The County has already invested in acquiring, implementing, testing, and validating this system. The cost to obtain and implement a new system requires a lengthy process that is not in the best interest of the County. UTA is the manufacturer of the County's APC system and the most qualified to maintain the system. Recommendation is to waive the bidding process and allow MDT to enter into a County agreement with UTA for the required hardware/software maintenance, support and consulting services.

Margaret Brown
Officer/Associate

April 25, 2013
Date

**Miami-Dade Transit
Automated Passenger Counters
Hardware / Software Maintenance
Scope of Services**



Information Technology
November 2012

Automatic Passenger Counters

Currently, Miami-Dade Transit (MDT) operates Eight Hundred and Twenty Three (823) buses equipped with Urban Transportation Associates (UTA), Inc. Automatic Passenger Counters system integrated with the Automated Fare Collection System (AFCS). The APC system collects detailed operational data that supports analytic requirements of MDT's Planning and Scheduling Divisions. APC-generated reports and analyses are utilized for both internal and external reporting requirements.

The APC's require regular maintenance and support in order to guarantee its continued operation and optimal data yield. The data yield is a measure of the usable data the system provides for ride counts, and this information is utilized for service planning purposes.

MDT's APC hardware is out of warranty as of the end of fiscal year 11-12, and the data yield is below that of acceptable levels to obtain enough data for reporting. MDT needs to maintain the current system and increase the data yield for the same. This Maintenance and Support Services Agreement contract shall include the following Scope of Services covering all aspects of APC-specific hardware and software:

Hardware

MDT shall perform all primary hardware maintenance on Metrobus and Metromover APC System. MDT's System Maintenance technicians are trained and assume all primary repair functions required. MDT System Maintenance technicians may request guidance from the vendor as necessary.

The vendor shall actively assist with APC repairs to ensure that the yield goal of 80% is reached within a three month period. All parts required for maintenance and repair of APC hardware shall be included with the proposed maintenance agreement.

The vendor will oversee all health check functions on APC equipment to ensure that the data yield does not fall below 75%, and will instruct MDT technicians which component is in need of repairs.

Software

The vendor shall continue to provide the reference files necessary for generating APC data by day/month/line-up period. The reference files are referred to as assignment file, bus stop, schedule adherence, segment, trip, time period, block totals, and wheelchair and bike rack files. MDT (the department) will continue to provide all of the necessary source files from Trapeze and the General Transit Feed Specification (GTFS) for the creation of reference files and line-up matching.

Upgrades & Updates

The vendor shall continue to provide the reference file process update for each service line-up, and all of the inter-line-up changes implemented within that time period. All of these updates will be provided by the department.

Services

The vendor shall provide phone (remote) and on-site support, training, and ad hoc reporting services for the duration of the proposed maintenance agreement. These support services shall be made available as follows:

	Time Window	Days
Phone Support	8:00AM - 5:00PM	Monday - Friday
Onsite Support	Buses are available 8:00 PM – 4:00 AM	Monday - Friday
Onsite Maintenance	8:00AM - 7:00PM	Monday - Friday
Training	8:00AM - 5:00PM	Monday - Friday
Ad Hoc Reporting	8:00AM - 5:00PM	Monday - Friday

Exceptions

The Automated Fare Collection System's (AFCS) hardware is not part of this maintenance agreement. Issues related to AFCS equipment will be handled outside of this contract.

525) - Prof services (training)
 - Licenses required?

Pricing

Initial Term	
Year one (2013)	\$88,010.00
Year two (2014)	\$91,970.00
Year three (2015)	\$96,109.00

includes repair
 + prof services
 7,500 parts
 x 3

276,089 + 22,500 = 298,589

Option-to-Renew	
Year four (2016)	\$100,434.00
Year five (2017)	\$104,953.00
Year six (2018)	\$109,676.00
Year seven (2019)	\$114,612.00
Year eight (2020)	\$119,769.00

Price List	
APC Sensor Assemblies	\$475.00
Infra-Red Sensor Head (Diffused)	\$165.00
Infra-Red Sensor Head (Reflect)	\$75.00
Cables (Full Set)	\$615.00
Sensor Pigtail Cables	\$55.00
SmartSensor Interface Module	\$975.00
Wire Covers	\$25.00
Bike Rack Switch	\$95.00
APC Sensor Shims	\$20.00

new equipment?

- procedure for trouble shooting broken equipment?

Bob McClellan

Non-Competitive IT Project Review

Directions for Completion: Departments requesting a non-competitive project review for new or existing Information Technology (IT) Systems are required to complete this questionnaire along with the appropriate Bid Waiver/Sole Source Justification Form. The response and explanation fields are to be fully completed to provide all background on the project. Please be as specific as possible and provide all backup documentation, doing so will expedite the review of your project.

The answers provided in the response field shall be according to the following format:

- "Y" – Yes
- "N" – No
- "N/A" – Not applicable

Existing Systems

<u>Questions:</u>	<u>Response:</u>	<u>Explanation:</u>
Current Contract Information:		
When and how was the IT software/hardware initially purchased by the County? (Please provide contract number, award info, and applicable documentation)	Contract 8481-2/22	The Automated Passenger Counters (APC) system was acquired by Cubic as part of the specification on contract 8481-2/22 Automatic Fare Collection System. This is a new maintenance contract. The software/hardware is now out of warranty. This request is to establish a Software/Hardware Maintenance & Support contract for the APC System. The original contract provided the acquisition of the APC hardware, software and a three year warranty period which has expired. Cubic (Vendor under contract 8481-2/22) will not provide ongoing maintenance and support for this system.
When does the current contract expire?	N/A	
If the contract has expired, how are/have you been maintaining the IT hardware/software? (Provide explanation and documentation if applicable)	N/A	Through limited support from UTA (original vendor contracted by Cubic for the APC system)
Was maintenance and support included in the current contract? If no, why not? Did it include assistance with transition to a new system?	N	The vendor would not provide ongoing support upon the expiration of warranty period. Maintenance was not included. Since this is a new system for Miami-Dade Transit (MDT), there was no transition from any

Non-Competitive IT Project Review

		other system.
What other applications does the System integrate/interface with?	AFCS Trapeze DRI	APC integrates with the Digital Recorders' annunciator system and CUBIC's AFCS. The APC system collects detailed operational data that supports analytic requirements of MDT's Planning and Scheduling Departments. APC-generated reports and analyses are utilized for both internal and external reporting requirements. The reference files are generated by APC utilizing information from Trapeze, which is MDT's service scheduling software
If a new system were deployed would it still be necessary to support the current system in parallel? How long would the legacy system need to be maintained and operational? Could historical data be stored in a data warehouse? What would be the cost?	Y	The current system would have to be maintained in parallel until the new system is fully operational, and data from new system is validated with old system. The APC system collects detailed operational data that supports analytic requirements of MDT's Planning and Scheduling Departments. APC-generated reports and analyses are utilized for both internal and external reporting requirements. The purpose of the APC system to generate information that will directly improve the productivity and quality of MDT service. The expected life cycle is indefinite.
What is the purpose of this IT hardware /software? What is the expected life cycle?	Automated Passenger Counters (APC)	APC is an integral part of the department's technical and operational infrastructure, as it is used for service level planning and reporting.
Is this product an integral part of the County / Department's technical infrastructure? Does it perform system critical functions? If so, what?	Y	OEM support will be provided with this solution.
Are these solutions delivered through the Original Equipment Manufacturer (OEM) support? If no, is it delivered through authorized reseller or dealers?	Y	

Non-Competitive IT Project Review

<p>On the current contract, is the User Access Program (UAP) and Inspector General being collected?</p>	Y	<p>The UAP and Inspector General are applicable ordinances on the original contract.</p>
<p>Does the current contract require insurance? <i>(Note: Any vendor required to come onto County property is required to have insurance throughout the term of the Agreement.)</i></p>	Y	<p>Insurance is provided by the contractor</p>
<p>Have you encountered any issues during the contract term regarding performance or compliance?</p>	N	<p>The department is pleased with the level of service obtained during the installation, testing, and warranty period.</p>
<p>Have you been satisfied with the performance of the vendor to date?</p>	Y	<p>The vendor has been providing support out of goodwill now that the system is out of its three year warranty.</p>
<p><u>Questions:</u></p>	<p><u>Response:</u></p>	<p><u>Explanation:</u></p>
<p>Market Research:</p>		
<p>Are there available equivalents to the product or service you are requesting for this new project? <i>(Please provide documentation regarding your Department's market research)</i></p>	Y	<p>Several like-companies were contacted during the market research for inquiries on maintenance of EXISTING architecture. Only one company was willing to provide maintenance and pricing of the existing system, with them going back to the original vendor for parts/pricing. Others simply turned down our request, as the representatives have expressed that it is not in their business to maintain a peer's system. We would have to have had their system implemented in order to obtain any level of maintenance from these other companies. Market Research indicated that each vendor providing their own system would provide maintenance and support.</p>

Non-Competitive IT Project Review

<p>If there are available equivalents, why do these products not meet your needs? What are the differences? <i>(Please be as specific as possible to provide sufficient detail to justify your request.)</i></p>		<p>It is not that they would not meet our needs, but rather that these same companies have turned down the opportunity to provide maintenance (see above). The only other company that would provide maintenance is obtaining parts and pricing from our original vendor to provide this service to/for the department.</p>
<p>Can the vendor meet your long term needs? What research has been conducted to verify their ability to meet your expectation? <i>(Please provide documentation, as applicable, to show your findings)</i></p>	Y	<p>The vendor is committed to meeting the department's need to an unforeseeable future. The vendor met the needs during the pilot period, have met our needs during implementation, and have continued to provide support even during the lapse of the warranty period. Their track record and business relationship with the county would not lead us to think otherwise.</p>
<p>What other vendors offer systems capable of providing the County with a solution?</p>		<p>Clever Devices 1-800-872-6129 INIT 1-877-462-4648 InfoDev 1-866-590-1965</p>
<p>Are these solutions delivered through the Original Equipment Manufacturer (OEM) support or is it delivered through authorized reseller or dealers.</p>		<p>These solutions are delivered through the OEM.</p>
<p>Are dealers required to complete a certification program or are they restricted to levels of support set up by the vendor/mfg? <i>(I.e. gold plan vs. platinum plan – gold allows vendor to maintain equipment but they do not have access to software upgrades or new system implementations. Platinum allows vendors to complete new product installs and all other support).</i></p>		<p>The new contract is a request for Software/Hardware Maintenance & Support; therefore, the awarded vendor would be required to provide support and have the appropriate knowledge to meet our needs.</p>
<p><u>Questions:</u></p>	<p><u>Response:</u></p>	<p><u>Explanation:</u></p>

Non-Competitive IT Project Review

What level support does the County require for this new project?		The department will require a three-day turn around on any repair requests submitted during the regular business ours of the contractor. Miami-Dade Transit operates 24 hour a day, seven days a week (including holidays).
Are there other systems currently employed by the department / County that are similar that could provide a solution?	N	Miami-Dade Transit does have any systems that are similar to APC, nor is the department aware of any other county department that has or requires APC.
If a new system were deployed would it still be necessary to support the current system in parallel?	Y	The current system would have to be maintained in parallel until the new system is fully operational, and data from new system is validated with old system.
How long would the legacy system need to be maintained and operational?	N/A	There is no legacy system as it relates to APC. This is new technology for the department
Could historical data be stored in a data warehouse? What would be the cost?	Y	Historical data can be stored in a data warehouse. The cost for the data warehouse would be ...
Has the replacement system been reviewed and approved by the IT Leadership Council?	N	No replacement system is being considered at this time.
New Project Information:		
<u>Questions:</u>	<u>Response:</u>	<u>Explanation:</u>
What are the business goals and objectives of this new project? (Please be specific)		The business goal is to have the APC system in optimal conditions to meet the business objective of a high percentage of data yield from APC.
What contract term would you like established? (Initial term plus any renewals)		An initial three year contract with three to five OTRS on a year to year basis to be exercised at the Sole discretion of the County.

Non-Competitive IT Project Review

<u>Questions:</u>	<u>Response:</u>	<u>Explanation:</u>
What allocation is requested on this new project? What is the basis of the allocation request? (i.e. Vendor quote, market research, etc)		
Please provide documentation if applicable.	\$82,620	The vendor has provided us with a quote for these services for one year.
What is your funding source(s) for this new project?		Miami-Dade Transit (MDT) Operating funds.
Is this a grant funded project? If so, please provide grant documentation outlining the expiration date and requirements.	N	This is not a grant-funded project.
What budget year is it scheduled for?	FY11/12	This will fall under FY 2012's budget.
Is the allocation enterprise or department based?	Department	No other county department has an APC system implemented identical or even similar to that of MDT.
Scope Information:		
<u>Questions:</u>	<u>Response:</u>	<u>Explanation:</u>
Please provide a high level overview as to the scope of this project. A defined scope of work is to be provided with your submission.		Labor and materials to maintain MDT's APC system at a level of performance that provides APC-generated information in the quantity and quality that will support MDT's analytic needs. [Attached scope of services]
What is your Project Timeline?		The department will like to have a maintenance contract in place as soon as possible, to provide MDT with APC Software/Hardware maintenance and support services.
What are the roles and responsibilities of the vendor?		Upon report of a problem dealing with either hardware or software, the contractor has up to three business days to correct the problem, unless physically impossible to correct within the agreed turn around time.

Non-Competitive IT Project Review

What are the roles and responsibilities of the County?		Upon discovery of a problem, or when data yield is not at optimal levels, MDT will report to the contractor for corrective action.
Software Acquisitions:		
Is this a replacement of an existing software/system?	N	This is not a replacement of any hardware / software, but rather maintenance of the same.
Questions:	Response:	Explanation:
Is the software perpetual? If so, please provide a copy of the license agreement with your submission.	Y	Copy of license agreement is provided.
Do you require professional services on the new contract? (i.e. Training, custom programming, consulting)	Y	MDT would like to incorporate professional services in the new agreement.
How is the software licensed? (i.e. Per User, Enterprise, Concurrent User, Site)		Currently the software is licensed per user, and we have a total of XX user licenses.
How many users?	20	There are a total of 20 non-concurrent users of the APC analytical software package
Do you want/need the new contract to provide the option to purchase additional licenses or services during the term?	Y	We will like to explore the possibility of acquiring additional software licenses to accommodate additional load in the system.
Do you require training for users on the new contract? How many users are to be trained? Levels?	Y	Training of users is desired for beginning, intermediate, perhaps advanced, and administrative training.
Where is the software hosted?	In-house	The software is housed within MDT's servers of purview.
Do you have a disaster recovery plan? If no, is the vendor required to provide collocation under the new contract?	Y	The department has a comprehensive disaster recovery plan, which currently covers all of our systems – inclusive of APC. The vendor will not be required to provide a disaster recovery plan.
What are your long term plans with the system?	Indefinite	As the system provides information that aides in the core of service planning, our plans are to use the

Non-Competitive IT Project Review

		system to its fullest indefinitely.
Do you have the source code?	N	We do not have the proprietary source code of the system.
Would you like software escrow added to the new contract?	Y	We would discuss with the contractor the possibility of software escrow in the event they can't / won't disclose source code.
What is the life expectancy of the software? What value does this project provide to your department?	Indefinite	The APC system is an integral part of the department's technical and operational infrastructure, as it is used for service level planning and reporting.
Hardware Acquisitions:		
Questions:		
Was maintenance and support included in the original contract? If not, why?	N	Explanation: AFCS maintenance covers items specific to fare collection, not passenger counting
Did it include assistance with transition to a new system?	N	There was no system implemented to transition from.
Is this product an integral part of the County / Department's technical infrastructure?	Y	The APC system is an integral part of the department's technical and operational infrastructure, as it is used for service level planning and reporting.
What are the requirements for maintenance and support under the new contract?		Upon report of a problem dealing with either hardware or software, the contractor has up to three business days to correct the problem, unless physically impossible to correct within the agreed turn around time. Please see attached Scope of Services
Will the vendor be required to come onto County property to provide technical support/assistance? If not, how will this be accomplished?	Y	For system repairs, the vendor is required to be present on County property
What level of support is required by your Department under the new contract? (i.e. 24x7, onsite repair, parts, etc.)		Onsite repairs and parts, with a maximum of 3-days response time.
Does it perform system critical functions? If so, what?	Y	The system provides stop level demand, individual trip productivity

Non-Competitive IT Project Review

<p>What would be the effect to the County if the maintenance / support services were not obtained?</p>	<p>Major</p>	<p>The system will eventually degrade providing little to no data for service planning purposes. Ridership information will become unavailable for internal use and external requests.</p>
<p>What other systems does the hardware integrate/interface with?</p>	<p>Several</p>	<p>The vehicle location subsystem is provided by Digital Recorders Inc. (DRI), and the APC data transfer is executed by the CUBIC fare collection system.</p>
<p>Will the new contract require the vendor to maintain these integrations/interfaces with these systems also?</p>	<p>N</p>	<p>The interfaces will be maintained under the AFCS maintenance</p>
<p>Questions:</p>	<p>Response:</p>	<p>Explanation:</p>
<p>What is the life expectancy of the hardware?</p>	<p>Indefinite</p>	<p>The APC system's life expectancy is indefinite, unless other technology makes APC obsolete.</p>
<p>What value does this project provide to your department?</p>	<p>Added value</p>	<p>The APC system is an integral part of the department's technical and operational infrastructure, as it is used for service level planning and reporting.</p>
<p>Do you need to have the ability in the new contract to purchase additional hardware components, parts, or services? If so, please provide a detailed explanation as to your Department's requirements.</p>	<p>N</p>	<p>This will cover strictly maintenance of the existing hardware/software, which includes replacement parts.</p>

PROPOSAL FOR:

**AUTOMATIC PASSENGER COUNTER (APC)
SYSTEM MAINTENANCE AND SUPPORT**

PREPARED FOR:

**Miami-Dade Transit (MDT)
701 NW 1st Court
Miami, Florida 33136**

SUBMITTED BY:

**URBAN TRANSPORTATION ASSOCIATES (UTA), INC.
700 EAST MCMILLAN STREET SUITE 302
CINCINNATI, OHIO 45206**

Technical data furnished herein shall not be used or disclosed, except for evaluation purposes, provided that if a contract is awarded to this offer or as a result of or in connection with the submission of the proposal, MDT shall have the right to use or disclose this technical data to the extent provided in the contract. This restriction does not limit MDT rights to use or disclose any technical data obtained from another source without restriction.

bai

1. Introduction

1.1. Project Objectives

Currently, MDT operates Eight Hundred and Fifty ⁸²³~~(850)~~ buses equipped with UTA's Automatic Passenger Counting (APC) system integrated with the Digital Recorders annunciator system and the CUBIC fare collection system. The APC system collects detailed operational data that supports analytic requirements of MDT's Planning and Scheduling Departments. APC-generated reports and analyses are utilized for both internal and external reporting requirements.

This proposal is directed at the provision of labor and materials to maintain MDT's APC system at a level of performance that provides APC-generated information in the quantity and quality that will support MDT's analytic needs. A highly performing APC system at MDT is in the best interests of both MDT and UTA.

Ultimately, it is the objective of the APC system to generate information that will directly improve the productivity and quality of MDT service.

1.2. Background

UTA, located in Cincinnati, Ohio, is a firm specializing in the production and application of Automatic Passenger Counting (APC) systems. At MDT, UTA's APC system includes on-board passenger counting sensors and the post processing APC Software package. The vehicle location subsystem is provided by Digital Recorders Inc. (DRI) and the APC data transfer is executed by the CUBIC fare collection system. Each morning at 03:00 AM EST, UTA's APC Software accesses the raw APC data and executes a comprehensive data processing sequence that produces a variety of APC Analytic reports/plots along with a set of APC Administrative Control reports that present the performance of APC system.

UTA is recognized as the firm that has pioneered APC technology in the U.S. transit market by demonstrating that APC technology can operate at high performance levels in the often-harsh operating environment of transit. UTA is the most experienced provider of fully integrated APC hardware and software systems that consistently and routinely meet the analytic objectives of transit users.

For more than two (2) decades, and in more than eighty (80) North American transit agencies, UTA's APC system has been providing accurate and reliable information to transit managers. It is this unmatched experience that will be applied to the Maintenance and Support of MDT's APC system.

2. Statement of Work

2.0 APC On-Bus Hardware Maintenance and Support

2.1 APC Performance Monitoring

Currently, UTA has been granted remote access into MDT's APC Processing work station that allows UTA and MDT to review the APC Diagnostic reports on a daily basis. Each morning at 03:00 AM EST, UTA's APC Diagnostic software applies a number of diagnostic algorithms to the raw APC data in order to obtain a reliable assessment of APC data quality and quantity. The APC-equipped buses with maintenance needs are identified. UTA will assume primary responsibility for the review of the APC Diagnostics and the subsequent identification of buses that require APC maintenance.

2.2 APC Data Yield

UTA will provide the labor and materials that will allow MDT to maintain a satisfactory APC Data Yield for the term of the contract. APC Data Yield is determined by the ratio of Valid Data Days and the Total Chronological Days in a given period. The term 'satisfactory APC Data Yield' will be defined as providing a statistically valid sampling of all Weekday MDT revenue service each monthly period. The APC system will be maintained at an optimal level in order to produce an average number of samples for each Weekday Revenue Trip in the range of 5-15. Given the integrated nature of the APC system at MDT, UTA can only be responsible for the performance of the APC on-bus sensors. On-bus GPS performance and APC Data Transfer performance are outside UTA's APC Support jurisdiction.

An example relative to APC Data Yield: A fleet of 100 APC-equipped buses for a 30 day period will generate a maximum of 3000 data-days. If 3 buses have malfunctioning APC Passenger Counting Sensors, 2 buses have malfunctioning GPS receivers, and 2 buses have malfunctioning APC Data Transfer subsystems, the number of Valid Data Days would be 2790 (100total buses - (3+2+2 malfunctioning buses))x(30days). The overall Data Yield for this period is 93%. However, the APC Data Yield is $(100\text{buses} - 3\text{APCdefects}) \times 30\text{days} / 3000 = 97\%$.

UTA estimates a period of time between 30-60 days after Notice To Proceed to execute the appropriate maintenance tasks on the APC equipment to realize an improvement of APC Data Yield into the 70% range assuming high levels (95%+) of performance in the CUBIC APC data transfer and the DRI GPS functions. MDT must recognize that APC Data Yield is dependent upon the UTA APC system, the CUBIC Fare Collection system, and the DRI AVL system functioning in a satisfactory manner. In the initial weeks after NTP, UTA will apply a disproportionately large amount of resources to repair the on-bus APC equipment. UTA will provide evidence (technician post-installation APC inspection sheet) of the APC maintenance performed on each bus. The calculation of APC Data Yield will include APC-equipped buses

that have been repaired but are not transferring APC data or are demonstrating malfunctioning GPS systems.

2.3 APC Maintenance Response Time

To achieve this level of performance, UTA will provide an average 2-3 day response time to address APC system malfunctions. If the overall APC Data Yield approaches an unsatisfactory level for a given chronological period (week, month), UTA will dispatch the appropriate number of APC technicians to address the APC maintenance needs and return the APC Data Yield above the satisfactory APC Data Yield threshold.

In order to minimize impacts on MDT's revenue service operations, APC maintenance activities will be performed primarily on evenings and weekends.

Typically UTA will provide a minimum of 24 hour notice prior to the beginning of the maintenance activities. However, in order to avoid a delay in the execution of APC maintenance, there may be occasions where a 6-8 hour notice will be provided by UTA to the designated MDT divisional maintenance staff prior to performing APC maintenance activities. The notification will be provided in verbal, e-mail and/or fax modes.

2.4 Local APC Support

UTA will hire, or subcontract, and train 1-2 local electronic technicians that will provide the manpower to execute the APC maintenance. UTA technicians will make the necessary visits to supplement the local APC technicians. UTA will contract with a local storage facility to maintain an optimal level of APC spare parts inventory to support the APC maintenance effort at MDT.

2.5 Chronic APC Failures/CPU Replacement

In the event that a particular APC component exhibits a consistent failure rate, UTA will provide a complete replacement for the subject component.

2.6 Limitations – APC Maintenance Agreement

This APC Maintenance agreement covers all APC malfunctions that result from normal transit operations consistent with the frequency and type of APC malfunctions that have been observed at MDT over the past two (2) years. APC failures of high frequency and magnitude attributable to unusual vandalism, gross negligence, and/or acts of nature will not be included in the APC Maintenance Agreement. UTA and MDT will negotiate the remedy of such unusual conditions.

2.7 APC Maintenance Guarantee

Repairs that are not associated with or attributable to vandalism but are associated with component failure shall be guaranteed for at least one hundred eighty (180) days (6 months) after the last UTA APC maintenance corrective action. In the event the repaired component fails again within 90 days, UTA agrees to repair or replace the component at no further expense to MDT. MDT recognizes that there may be instances of unusual or extreme circumstances where multiple conditions or factors are contributing to the component failure. UTA will be responsible for notifying MDT of such unusual or extreme circumstances. In such instances, the ninety (90) day period may be deferred by mutual consent of MDT and UTA.

2.8 APC Maintenance Documentation

Within three (3) business days of each UTA APC Maintenance application at MDT, UTA will summarize the APC Maintenance efforts in an Excel file that contains: Date, Bus Number, Time of Day, Problem Reported, Diagnosis, and Corrective Action. This information will be provided via e-mail to MDT.

2.9 MetroMover APC Equipment Maintenance Support

UTA will execute monthly reviews of the APC systems installed at MetroMover stations to assess APC status and corresponding APC maintenance needs. As with the on-bus integrated APC systems, UTA can only be technically responsible for the performance of the APC sensors and the local APC CPU.

3.0 APC Software Support

In addition to executing on-bus APC equipment maintenance UTA will also provide support in the administration and management of the APC Software component of MDT's APC system.

The areas of APC Software support are described below.

3.1 APC Administrative Control

3.1.1 Review/Summarization of On-Bus APC Hardware Performance

On a bi-weekly schedule, UTA will provide MDT with a summary of APC Data Yield along with a summary of APC equipment performance status by Division. A moving last twelve (12) month plot of APC Data Yield will be provided along with the summary. This information will provide MDT management and staff with an up-to-date status of the APC system.

3.1.2 APC Maintenance Summary

On a bi-weekly basis, UTA will provide a summary of the APC maintenance performed on each APC-equipped bus during the previous two (2) week period. All APC maintenance will be electronically stored in an Excel file that would contain the following information: Bus No., Division, Date, Time of Day, Technician, Problem Reported, Corrective Action, Materials Applied, and Repair Time Required. The APC Maintenance Summary will be provided in both an MS Word document and Excel export.

3.1.3 Trapeze Schedule Export/APC Conversion

For each schedule period, UTA will execute the conversion of the Trapeze Master Schedule export into the specified APC format. UTA will also execute the Data Quality checks that will identify any anomalies/errors/omissions in the Trapeze Master Schedule file export. UTA will communicate the results of the Data Quality review to MDT for resolution.

3.1.4 Trapeze Bus Stop and Time Point Export/APC Conversion

For each schedule period, UTA will execute the conversion of the Trapeze Bus Stop and Time Point export into the specified APC format. UTA will also execute the Data Quality checks that will identify any anomalies/errors/omissions in the Trapeze Master Schedule file export. UTA will communicate the results of the Data Quality review to MDT for resolution.

3.1.5 Post Schedule Change APC Data Quality Review

After one (1) week of APC data has been collected in a new schedule period, UTA will execute a number of APC Administrative Control analyses that will identify any inconsistencies/anomalies in the APC data that require resolution. Examples of analyses include:

- 3.1.5.1 Sampling Status - Check for missing Routes
- 3.1.5.2 Trip SOL/EOL Matching - Check for SOL/EOL anomalies
- 3.1.5.3 Segment Contiguity - Check for missing Time Points
- 3.1.5.4 Not Identified Bus Stops – Check for missing Bus Stop geo-coding

From this APC Data Quality Review, UTA and MDT staff will execute any necessary revisions to the Trapeze schedule and geo-coding files, re-execute the file conversion, and reprocess the set of APC data collected since the start of the schedule period.

3.1.6 Monthly and Schedule Period APC Data Processing Setup

UTA will assume responsibility for executing the changes to the standard automated APC data processing modules. For each schedule period, the APC Data Transfer, APC Diagnostics, APC Automated Assignment, APC File Creation, and APC Database Loading modules will be modified to reflect the correct parameters and schedule period. On a monthly basis, the Global Reporting module will be updated in order to reflect the applicable monthly period reflected in the Global APC Reports.

3.1.7 Route Idiosyncrasies Identification/Setup

As needed, UTA will execute the setup and any applicable modifications to APC algorithms to reflect unusual service operating conditions. Factors such as construction, special events, customer requests, etc may require modification to standard APC software procedures. UTA and MDT staff will collaboratively identify the operational condition and, if appropriate, UTA will adapt the APC software to accommodate the unusual operating condition.

3.2 APC Analytic Software Support

3.2.1 Latest versions of UTA APC Reporting Menu

UTA will provide MDT with the latest versions of the APC Reporting Menu and will assure correct operation on each user workstation.

3.2.2 Ad-Hoc APC Reporting

UTA will provide support to meet ad-hoc reporting requirements that fall outside the standard APC Reporting Menu. Examples include: APC data exports requested from outside organizations (consultants, MPO's, etc), special requests from senior management and/or local political leaders, NTD audits, and other non-standard requests.

3.2.3 APC Information Utilization Training

UTA will provide training to MDT staff on the 'best-practices' observed by UTA with other UTA APC users on the application of APC-generated information in areas that improve MDT service productivity and/or quality. Included in this category is the training of new MDT staff that may be involved with MDT's APC system.

4.0 Cost

Miami-Dade Transit (MDT)

**Automatic Passenger Counting (APC)
System Maintenance and Support**

Cost Summary

02/02/12

<u>Item</u>	<u>Cost</u>
A. APC Hardware Maintenance – Local Labor (10hrs/wk)(\$40/hr)(52wks)	\$ 20,800
B. APC Hardware Maintenance - UTA Labor (96hrs/yr)(\$60/hr) (4rtrips/yr)(\$650/rtrip) (12days/yr)(\$225/day)	11,060
C. APC Materials	7,500
D. On-Site APC Software Support +Training+Status Mtgs (15rtrips/yr)(\$650/rtrip) (30 days)(\$225/day) (DJB-120hrs/yr)(\$95/hr) (TWK+SS-80hrs/yr)(\$75/hr)	33,900
E. Remote APC Software Support (144hrs)(\$65/hr)	9,360

Totals	\$ 82,620

5.0 Project Administration

5.1 Remote Access to APC Server at MDT

Critical to the effectiveness of UTA APC Maintenance and Support is continued capability for UTA to remotely access the APC server at MDT. Remotely accessing the APC Server with complete file transfer rights allows UTA to execute the system monitoring function critical to the effectiveness of UTA support. The execution of tasks previously defined in this proposal rely on UTA's ability to remotely access the APC Server in an efficient manner.

5.2 APC System Performance Status Meetings

On a monthly basis, UTA and MDT will hold a meeting to discuss APC System status and near-term APC plans. For the first four (4) months, the meetings will be held at MDT Overtown offices. After the first four (4) months, and with mutual MDT and UTA agreement, APC Status Meetings may be conducted via teleconference. At these meetings the APC system performance reports will be provided in either hard-copy or electronic copy.

5.1 Terms and Conditions

UTA will invoice on a quarterly (3 month) basis for APC Maintenance labor and materials applied to APC Maintenance at MDT. The invoices will document the actual costs incurred during the quarterly period. Payment terms of Net 30 will be included on the invoices.

**Miami-Dade Transit
Automated Passenger Counters
Hardware / Software Maintenance
Scope of Services**



**Information Technology
November 2012**

Automatic Passenger Counters

Currently, Miami-Dade Transit (MDT) operates Eight Hundred and Twenty Three (823) buses equipped with Urban Transportation Associates (UTA), Inc. Automatic Passenger Counters system integrated with the Automated Fare Collection System (AFCS). The APC system collects detailed operational data that supports analytic requirements of MDT's Planning and Scheduling Divisions. APC-generated reports and analyses are utilized for both internal and external reporting requirements.

The APC's require regular maintenance and support in order to guarantee its continued operation and optimal data yield. The data yield is a measure of the usable data the system provides for ride counts, and this information is utilized for service planning purposes.

MDT's APC hardware is out of warranty as of the end of fiscal year 11-12, and the data yield is below that of acceptable levels to obtain enough data for reporting. MDT needs to maintain the current system and increase the data yield for the same. This Maintenance and Support Services Agreement contract shall include the following Scope of Services covering all aspects of APC-specific hardware and software:

Hardware

MDT shall perform all primary hardware maintenance on Metrobus and Metromover APC System. MDT's System Maintenance technicians are trained and assume all primary repair functions required. MDT System Maintenance technicians may request guidance from the vendor as necessary.

The vendor shall actively assist with APC repairs to ensure that the yield goal of 80% is reached within a three month period. All parts required for maintenance and repair of APC hardware shall be included with the proposed maintenance agreement.

The vendor will oversee all health check functions on APC equipment to ensure that the data yield does not fall below 75%, and will instruct MDT technicians which component is in need of repairs.

Software

The vendor shall continue to provide the reference files necessary for generating APC data by day/month/line-up period. The reference files are referred to as assignment file, bus stop, schedule adherence, segment, trip, time period, block totals, and wheelchair and bike rack files. MDT (the department) will continue to provide all of the necessary source files from Trapeze and the General Transit Feed Specification (GTFS) for the creation of reference files and line-up matching.

Upgrades & Updates

The vendor shall continue to provide the reference file process update for each service line-up, and all of the inter-line-up changes implemented within that time period. All of these updates will be provided by the department.

Services

The vendor shall provide phone (remote) and on-site support, training, and ad hoc reporting services for the duration of the proposed maintenance agreement. These support services shall be made available as follows:

	Time Window	Days
Phone Support	8:00AM - 5:00PM	Monday - Friday
Onsite Support	Buses are available 8:00 PM – 4:00 AM	Monday - Friday
Onsite Maintenance	8:00AM - 7:00PM	Monday - Friday
Training	8:00AM - 5:00PM	Monday - Friday
Ad Hoc Reporting	8:00AM - 5:00PM	Monday - Friday

Exceptions

The Automated Fare Collection System's (AFCS) hardware is not part of this maintenance agreement. Issues related to AFCS equipment will be handled outside of this contract.

5 2 (6) - Prof services (training)
 - Licenses required?

Pricing

Initial Term	
Year one (2013)	\$88,010.00
Year two (2014)	\$91,970.00
Year three (2015)	\$96,109.00

includes repair + prof services
 7,500 parts
 x 3

$276,089 + 22,500 = \downarrow$
 $\$298,589$

Option to Renew	
Year four (2016)	\$100,434.00
Year five (2017)	\$104,953.00
Year six (2018)	\$109,676.00
Year seven (2019)	\$114,612.00
Year eight (2020)	\$119,769.00

Price List	
APC Sensor Assemblies	\$475.00
Infra-Red Sensor Head (Diffused)	\$165.00
Infra-Red Sensor Head (Reflect)	\$75.00
Cables (Full Set)	\$615.00
Sensor Pigtail Cables	\$55.00
SmartSensor Interface Module	\$975.00
Wire Covers	\$25.00
Bike Rack Switch	\$95.00
APC Sensor Shims	\$20.00

new equipment?

- procedure for trouble shooting broken equipment?

Bob McClellan

Walters, Vivian (RER)

From: Bethel, Pearl (ISD)
Sent: Wednesday, April 24, 2013 10:36 AM
To: Walters, Vivian (RER)
Subject: Commodity Code

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Session A - [24 x 80]
File Edit View Communication Actions Window Help
PCHL1100 V5.1          MIAMI-DADE COUNTY ADPICS 5.1
LINK TO:              COMMODITY TABLE INQUIRY

S  COMMODITY NAME          COMMODITY ID          INV  ITEM
MISCELLANEOUS COMMODITY    999                   N
MISCELLANEOUS CONSTRUCTION 906-99                N
MISCELLANEOUS CONSTRUCTION,FEDERAL 907                   N
MISCELLANEOUS CONSTRUCTION,FEDERAL 907-99                N
MISCELLANEOUS PRODUCTS     578                   N
MISCELLANEOUS PROFESSIONA  961                   N
MISCELLANEOUS SERVICES     962                   N
MISCELLANEOUS TRAIN CONTR  864-55                N
MITRE BOXES                 445-47                N
MITTS, PAINTER'S           635-14                N
MIX, PAINT WATER           630-44                N
MIXED FEED                  325-52                N
MIXED FEED FOR ANIMALS, A   325-52                N
MIXED MEDIA, ARTWORK       052-48                N
MIXER MAINT. AND REPAIR,   929-30                N
MIXERS, CONCRETE           755-80                N

F1-HELP      F2-VIEW COMM      F4-VIEW DETL F5-SPECS      F6-
F7-PRIOR PG  F8-NEXT PG       F9-LINK      F10-VIEW WHS F11-VIEW BPO F12
G112 - INQUIRY SUCCESSFUL

MA a
start Listen live stream... Inbox - Mailbox... RE: RFP336, W... Unlabeled - Mess... Session A - [24 x 80] KRISTINA
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Pearl P. Bethel, Procurement Contracting Officer 2
Miami-Dade County Internal Services Department
111 NW 1st Street, Suite 1300, Miami, Florida 33128
305-375-2102 Phone 305-372-6128 Fax
<http://www.miamidade.gov/dpm/>
"Delivering Excellence Every Day"