



June 13, 2019

To: Transit Committee

From: Darrell E. Johnson, Chief Executive Officer

Subject: Agreements for the Intelligent Transportation Management System Upgrade

Overview

Orange County Transportation Authority utilizes an Intelligent Transportation Management System to provide dispatch communications, vehicle locators, data interface, and other services for the countywide bus system. Some of the hardware and software components have reached the end of their useful life and need to be upgraded or replaced. Four new agreements are necessary to upgrade the system to ensure continued transit operations in the future.

Recommendations

- A. Authorize the Chief Executive Officer to negotiate and execute sole source Agreement No. C-9-1120 between the Orange County Transportation Authority and Conduent Transport Solutions, Inc., in the amount of \$985,733, to upgrade to the most current OrbCAD core build software and hardware.
- B. Authorize the Chief Executive Officer to negotiate and execute sole source Agreement No. C-9-1055 between the Orange County Transportation Authority and Conduent Transport Solutions, Inc., in the amount of \$137,056, to upgrade to the most current ArcGIS map version of the software.
- C. Authorize the Chief Executive Officer to negotiate and execute sole source Agreement No. C-9-1060 between the Orange County Transportation Authority and Aviat U.S., Inc., in the amount of \$68,898, for the purchase of equipment, licenses, and services to upgrade the microwave system.

- D. Authorize the Chief Executive Officer to negotiate and execute Agreement No. C-9-1104 between the Orange County Transportation Authority and Nth Generation Computing, Inc., the lowest responsive, responsible bidder, in the amount of \$388,062, for the purchase of computing hardware and computer storage equipment.

Discussion

In 2011, the Orange County Transportation Authority (OCTA) purchased the computing system hardware and software (OrbCAD and ArcGIS) and current communications hardware (Microwave) for the Intelligent Transportation Management System (ITMS) to support the ITMS computer-aided dispatch/automated vehicle location (CAD/AVL) systems. OCTA needs to upgrade the core software and hardware for the ITMS, as well as upgrade the current communications hardware and computing system hardware. All of these systems have reached their end of life and support, and an upgrade is required to maintain and support OCTA's transit systems for the future.

The OrbCAD software is the core program for the ITMS, and it needs to be upgraded to remain supportable. In addition, the upgrade of the OrbCAD software will allow the use of Voice over Internet Protocol (VOIP) technology to replace OCTA's existing radio system that has been discontinued by the manufacturer. The plan is for OCTA to move directly into a 12-vehicle pilot on the VOIP technology upon completion of the ITMS upgrade to enable a future migration of OCTA's existing radio system to VOIP technology for the entire fleet.

Used by dispatchers for both fixed-route and paratransit operations, the ArcGIS software provides a visual map of the County of Orange and surrounding areas. OCTA purchased the current ArcGIS map software as part of the ITMS in 2011, to support the radio communication systems. As part of the ITMS upgrade, OCTA is required to upgrade its current ArcGIS map software to the newest version as the current version has reached its end of life. The new version of the ArcGIS software will provide updated maps for dispatchers for fixed-route operations and paratransit operations, as well as updated maps used by paratransit drivers for turn-by-turn directions.

OCTA's microwave equipment is hosted at the County of Orange's Loma Ridge Station, which provides a connection to OCTA's Garden Grove and Construction Circle bases. OCTA is seeking to upgrade the microwave links between these three sites, which will deliver backbone connectivity that matches and/or exceeds the ethernet cable speed required between the three sites, as well as increases the reliability and maintainability of the current system infrastructure. This upgrade to OCTA's microwave equipment is a prerequisite requirement that

must be completed before the planned ITMS upgrade so that OCTA has the capacity to simultaneously support both the old and the new ITMS computing infrastructures.

OCTA originally purchased the current computing hardware and computer storage equipment for the ITMS in 2011 to support the CAD/AVL systems. As part of the ITMS upgrade, OCTA is required to purchase new computing hardware and computer storage equipment to replace existing equipment that has reached its end of life. OCTA will move to a more modern hyper-converged virtual environment, which increases the reliability and redundancy of the equipment.

These procurements are also a prerequisite for the OC Streetcar. A separate sole source procurement with Conduent Transport Solutions, Inc. (Conduent) for the OC Streetcar is in development, which will be presented at a future OCTA Board of Directors (Board) meeting. This separate sole source agreement will be for the integration and engineering of the Siemens streetcars with the Conduent provided CAD/AVL system along with providing the hardware and installation for eight streetcars. Implementing the Conduent system allows the OCTA to have one common CAD/AVL system across its entire fleet, both bus and streetcar.

Procurement Approach

The procurements for the upgrades to the OrbCAD, ArcGIS, and microwave equipment were handled in accordance with OCTA's Board-approved policies and procedures for a sole source procurement.

Conduent is the exclusive owner of the OrbCAD and ArcGIS software and Aviat U.S., Inc. (Aviat) is the exclusive owner of the microwave equipment. Conduent and Aviat have proprietary rights to their respective technologies and are the sole entities able to market and sell their proprietary technologies, as they do not have agreements that allow resale through other vendors. Therefore, Conduent and Aviat meet OCTA's criteria for a sole source procurement, and based on their technical ability and financial status, Conduent and Aviat are deemed responsible.

Conduent and Aviat's proposals were reviewed by staff from the Contracts Administration and Materials Management (CAMP) and Information Systems (IS) departments to ensure compliance with the contract terms and conditions, as well as the technical requirements.

In accordance with OCTA's sole source procurement procedures, a sole source over \$50,000 requires OCTA's Internal Audit Department to conduct a price review of the vendor's proposed pricing. Conduent and Aviat each provided detailed pricing breakdowns; however, as is common with these types of vendors, the firms were not able to provide detailed cost breakdowns in a format that would be required in order to perform a price review. As a result, staff used the information available to analyze the reasonableness of the quoted prices. Staff determined that quoted pricing from both firms is consistent with contract pricing and quotes with other government agencies for similar services, which are comparable in scope, requirements, and technical specifications. In addition, Aviat's proposed pricing is consistent with the pricing contained in the National Association of State Procurement Officers price listing. Furthermore, the quoted pricings are lower than the project manager's estimates for both projects. Therefore, management has concluded that the quoted prices from both Conduent and Aviat are deemed fair and reasonable.

The procurement for the purchase of computing hardware and computer storage equipment was handled in accordance with OCTA's Board-approved procedures for materials and equipment greater than \$50,000. These procedures, which conform to both federal and state requirements, require that contracts are awarded to the lowest responsive, responsible bidder after a sealed bidding process.

Invitation for Bids 9-1104 was released on March 13, 2019, through OCTA's CAMM NET system. The project was advertised on March 13 and 20, 2019, in a newspaper of general circulation. One addendum was issued to respond to written questions received. On April 3, 2019, two bids were received and publicly opened.

All bids were reviewed by staff from both CAMM and IS departments to ensure compliance with the contract terms and conditions, and technical specifications. The list of bidders and bid amounts is presented below:

<u>Firm and Location</u>	<u>Bid Amount</u>
Nth Generation Computing, Inc. San Diego, California	\$388,062.46
Consiliant Technologies LLC Irvine, California	\$463,754.52

The recommended firm's bid is approximately four percent lower than the OCTA project manager's estimate and is considered by staff to be fair and reasonable.

Fiscal Impact

The Orange County Transportation Authority's Fiscal Year 2018-19 Finance and Administration Budget can accommodate these projects, in account strings 1288-9028-D111-17X, 1288-7519-D1111-17Y, and 1288-7519-D1111-17Z.

Summary

Based on the information provided, staff recommends the Board authorize the Chief Executive Officer to negotiate and execute four agreements necessary to facilitate the upgrade of OCTA's ITMS. This upgrade is necessary as equipment has reached its end of life and will ensure effective communication for both bus and OC Streetcar operations into the future.

Attachment

None.

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