A Report to the Maryland General Assembly

Senate Finance Committee

and

House Environment and Transportation Committee

Maryland Transportation Authority – Third Generation Electronic Toll Collection System

TR §2-1246 **Third Generation Electronic Toll Collection System**

March 2019

MSAR# 11244

The Maryland Department of Transportation
Maryland Transportation Authority

This report on the Maryland Transportation Authority's (MDTA) Third Generation Electronic Toll Collection System (3G-ETC) was prepared in response Chapter 719 of 2017, which requires:

> *That, on or before December 31 each year, the Maryland Transportation Authority shall issue a report to the Governor and, in accordance with § 2–1246 of the State Government Article, the Senate Finance Committee and the House Environment and Transportation Committee on the procurement and implementation of the Third Generation–Electronic Toll Collection System that includes for each component of the System:*
>
> *(1) a summary of key issues being addressed in the procurement and implementation of the System, including:*
>
> *(i) efforts to review and analyze the location of a toll plaza adjacent to a bridge that is a transportation facilities project to ensure that the Authority is appropriately charging a toll for vehicles that traverse the transportation facilities project; and*
>
> *(ii) a projected time frame for:*
>
> *1. Board of Public Works approval of contracts for the System; and*
>
> *2. implementation of the System;*
>
> *(2) if a contract has been approved by the Board of Public Works:*
>
> *(i) a summary of the key contract terms, including duration and cost;*
>
> *(ii) the selected vendors and their qualifications;*
>
> *(iii) a description of the factors that made a selected vendor the best–value selection;*
>
> *(iv) major changes made with respect to the previous tolling system contract, including new payment options for tolls; and*
>
> *(v) a description of the performance measures included in the contract and the actions that may be taken if the performance measures are not met; and*
>
> *(3) if a component of the System has been implemented, the impact on:*
>
> *(i) the tolling operations of and customer service provided by the Authority; and*
>
> *(ii) the possibility of implementing all–electronic tolling or changes to toll rates.*

Summary

This update is provided in response to Chapter 719, which requires the MDTA to provide a summary of key issues being addressed in the procurement and implementation of 3G-ETC, including efforts to review and analyze the location of a toll plaza adjacent to a bridge that is a transportation facilities project to ensure that the Authority is appropriately charging a toll for vehicles that traverse the transportation facilities project, a projected time frame for Board of Public Works (BPW) approval of contracts for 3G-ETC and a projected time frame for implementation of 3G-ETC.

Analysis

On February 21, 2018, BPW approved two major contracts that MDTA is using to develop and operate the third generation of its electronic toll collection system. The $71.9 million contract for tolling technology/operations and the $200.4 million contract for customer-service technology/operations will allow the agency to completely replace its existing toll collection system.

The new tolling system will include replacing existing toll-lane terminals and all associated hardware and software. The new customer-service system will allow MDTA to establish, staff, and manage a more efficient and responsive Customer Service Center for *E-ZPass*® Maryland operations.

Kapsch TrafficCom USA, Inc. was awarded the toll system and services contract, which includes all systems and operational activities related to building accurate transactions.

TransCore, LP was awarded the customer service center services contract, which includes developing, designing, procuring, installing, operating, and maintaining a fully functional customer-service center system.

Each system includes a development and installation phase, transition to the new system, six years of operations, two two-year optional renewals of operations, and a one-year phase out. Notice to Proceed began upon approval of the contracts by BPW, followed by two years to transition from the current single existing contract to the two contracts. After the two-year transition, there will be three months of acceptance testing with full implementation expected by the first quarter of 2020.

Kapsch TrafficCom USA, Inc.

Kapsch of McLean, VA will implement 3G-ETC by providing tolling system and services through an indefinite-quantity contract with fixed unit prices and fixed prices for lump sum deliverables. The contractor shall provide toll plaza and roadside systems, as well as maintenance for toll collection (cash and electronic payments). Work includes trip building, image review activities, and financial and audit systems for cash collections.

The proposal submitted by Kapsch USA, Inc. ranked first both technically and financially. The evaluation committee determined that the Kapsch proposal was the most advantageous offer to the State. The committee reached this conclusion based on the strengths and weaknesses of the proposals in the context of the RFP evaluation factors. Per the RFP, technical factors were more important than financial factors.

Kapsch USA, Inc. Contract Cost
$71,911,343 (Transition, acceptance testing, 6-year base, 1-year phase out)
$ 7,190,021 (option 1 above)
$ 7,537,665 (option 2 above)
$86,639,029 Total

Major changes with the new Third Generation Tolling contracts include implementing improved safety systems such as all-electronic tolling which is estimated to reduce crash rates by 77%; reducing pollutants and particulate matter (CO2 emissions and fuel consumption) in the environment; and saving MDTA and its customers at least $118,000 per month compared to the incumbent contract.

Performance measures include 20 Key Performance Indicators (KPI's). Failure to attain the desired performance results in a disincentive adjustment to monthly payments of up to 20% of the invoiced amount. The KPI's are listed below and may be renegotiated annually.

- Customer feedback
- System response time
- Report generation
- Monthly reporting
- Daily reporting
- Reporting accuracy
- Lane and system availability
- AVI lane transaction processing
- Video Toll Transaction Processing
- Usable video toll transactions
- Non-readable video transaction images
- Trip processing
- Trip Accuracy
- Manual lane terminal response
- Toll system synchronization
- Transponder file processing
- AVI read accuracy
- Video toll image association
- Vehicle classification accuracy
- Vehicle separation and association accuracy

Transcore, LP

Transcore, LP of Nashville, TN will implement Third Generation Electronic Toll Collection by providing Customer Service Center Services through an indefinite-quantity contract with fixed unit prices and fixed prices for lump sum deliverables. The contractor shall provide customer services related to electronic toll collection including: call center, website, mobile application, account management, video tolling systems, toll enforcement, mail and print services, email, text and other digital communications, communications services, transponder management, interagency reciprocity, financial and audit systems, and disaster recovery.

Five proposals were received and all were reasonably likely to be selected for award. The proposal submitted by Transcore ranked first technically and second financially. The evaluation committee determined that the Transcore proposal was the most advantageous offer to the State and, by extension, the customers. The committee reached this conclusion based on the strengths and weaknesses of the proposals in the context of the RFP evaluation factors. Per the request for proposals, technical factors were more important than financial factors,

Transcore, LP Contract Cost
$200,428,773 (Transition, acceptance testing, 6-yr base, 1-yr phase out)
$ 36,707,889 (option 1)
$ 35,681,780 (option 2)
$272,818,442 Total

Major changes include new communication channels that would significantly improve customer service including a mobile app (payments, notifications, account management), Web chat/modernized website, and content management system. Other customer service improvements include transponder feedback (audible and visual); alerts; ability to transfer video tolls to a prepaid account; customer satisfaction surveys; fleet management and application programming interfaces; faster notification of video tolls; and advanced call monitoring features (e.g. voice analytics). Even with these additional features, the new contract will save MDTA customers an additional $716,000 per month compared to the incumbent contract.

Performance measures include 21 Key Performance Indicators (KPI's). Failure to attain the desired performance results in a disincentive adjustment to monthly payments of up to 20% of the invoiced amount. The KPI's are listed below and may be renegotiated annually.

- Customer service rating
- Time to process payments and associate them to the correct account
- Time to scan, index, verify, attach and process non-payment incoming mail, email, and faxes for the correct account
- Correspondence Quality Control
- Time to process refund requests
- Monthly reporting
- Daily reporting
- Reporting accuracy
- Staffed Telephone coverage
- CSC System Availability
- Report generation
- System response time
- Website response time
- IVR automatic response time
- Average call wait time
- Call blockage rate
- Call abandon rate
- First contact resolution rate

- Time to resolve escalations
- Customer Service Center (CSC) employee turnover
- Correct assignment of transponders issued by the CSC system contractor

Facilities Review and All-Electronic Tolling

The implementation of the 3G-ETC contracts makes possible the conversion to all-electronic tolling (AET), which is part of MDTA's long-term strategic plan. The new contracts may allow for relocation or removal of existing toll plazas and gantries. MDTA is continuously working to evaluate and improve its facilities, including not just the bridges but also the associated approaches, interchanges, entrance plazas, and toll stations that MDTA owns, operates, and maintains. While MDTA's Trust Agreement with its Bondholders prohibits free passage, MDTA is committed to working with affected stakeholders around all our facilities to improve operations and customer service. Currently, AET is used on the Intercounty Connector (ICC)/MD 200 and I-95 Express Toll Lanes (ETL). Two additional all-electronic transportation facilities, the new Governor Harry W. Nice Memorial/Senator Thomas "Mac" Middleton Bridge and the I-95 Express Toll Lanes Northbound Extension, are being built in Maryland.