Request for Discussion

Toll Integration Service Contract Procurement Approach

Requested by State Road and Tollway Authority

December 9, 2019

Request a One-on-One by: December 20, 2019

Request Webinar Invitation by: December 20, 2019



1. Purpose and Need

The State Road and Tollway Authority (SRTA) intends to post a solicitation for the procurement of a Toll Integration Services Contractor (TISC) in early 2021. The goal of this procurement is to procure a TISC to design, install, integrate, and maintain the Electronic Toll Collection System (ETCS) for the planned Express Lane projects under the Major Mobility Investment Program (MMIP), SRTA's four operational Express Lane facilities, and any additional toll facilities that SRTA will operate during the contract term. Due to future contract expiration dates and the increasing number of toll facilities planned, SRTA intends to consolidate to one toll service integrator for all roadways.

Provided within this Request for Discussion are topics SRTA seeks input on from vendors interested in proposing for the TISC. Principally, SRTA seeks input for the following questions:

- 1) How would a vendor manage a project of the scope and scale of the MMIP?
- 2) How can the transition of existing facilities into the TISC be accomplished?
- 3) What are ways SRTA can create operational and cost efficiencies as part of the procurement process?

SRTA may use information gathered through this Request for Discussion to inform its Request for Proposal (RFP) development process. Interested vendors are required to follow the process outlined in this document.

2. Background

SRTA, in partnership with the Georgia Department of Transportation (GDOT), develops, operates, and maintains Georgia's Express Lane network. SRTA is responsible for setting toll rates, collecting tolls, and managing the Peach Pass Customer Service Center. GDOT is responsible for the civil construction of each Express Lane facility. SRTA is responsible for the toll system implementation and maintenance on each facility. SRTA collaborates with GDOT throughout the concept, implementation, and operational phases of the Express Lane projects.

SRTA currently operates four Express Lane facilities around metro Atlanta: I-85 Express Lanes, I-85 Extension Express Lanes, I-75 South Metro Express Lanes, and the Northwest Corridor Express Lanes. These dynamically priced lanes run alongside existing interstates in some of the most congested corridors in the region. The facilities provide a choice for motorists and transit riders who want a more reliable travel option during peak periods. Each lane is congestion priced to maintain reliable travel times during the peak periods. The following paragraphs provide a brief description of the existing facilities.

The I-85 Express Lanes (85A) is a 15-mile High Occupancy Toll (HOT) facility from Chamblee Tucker Road in DeKalb County, to North of Old Peachtree Road in Gwinnett County, including a two mile stretch of SR 316. The HOT lane has a single lane in each direction and is separated from the adjacent General Purpose (GP) lanes by a painted double white line buffer. The 85A Express Lanes opened on September 30, 2011 as a conversion of the existing High Occupancy Vehicle (HOV) lanes.

The I-85 Extension Express Lanes (85B) project consists of 10 miles of new capacity with one managed lane in each direction along I-85 in north Metro Atlanta from just north of Old Peachtree Road in Gwinnett County to Hamilton Mill Road. The managed lane opened to traffic in November 2018 and operates under the same business rules as the 85A Express Lanes as far as occupancy and eligibility. However, each Facility is priced independently, and transactions on the two facilities are built into separate trips (i.e. no single trip will span both Facilities).



Figure 1 Example of overhead gantry along the I-85 Express Lanes and Extension projects

The I-75 South Metro Express Lanes are reversible toll lanes that run 12 miles along the median of I-75 from McDonough Road (State Route 155) in Henry County to Stockbridge Highway (State Route 138) in Clayton County. The lanes opened in January 2017 and operate northbound in the morning and southbound in the evening.



Figure 2 Example of I-75 South Express Lane toll gantry at Jonesboro Road

The Northwest Corridor Express Lanes improves travel in the I-75/I-575 corridor by adding 30 miles of reversible lanes along I-75 from Akers Mill Road to Hickory Grove Road and along I-575 from I-75 to Sixes Road. Two Express Lanes were built to the west of the existing lanes along I-75 between I-285 and I-575. From that interchange, one express lane was added along I-75 north to Hickory Grove Road and one express lane was added along I-575 to Sixes Road. The reversible Express Lanes opened to traffic in September 2018 and operate southbound in the morning and northbound in the evening.



Figure 3 Example of Northwest Corridor Express Lane toll gantry at Big Shanty Road

In addition to the four existing Facilities, GDOT has identified five new tolled Express lane projects anticipated for completion by 2032 as a part of the transportation project list in the MMIP (see *Figure 4*). These projects include the following:

- 1) I-285 Eastside Express Lanes
- 2) I-285 Top End East Express Lanes
- 3) I-285 Top End West Express Lanes
- 4) I-285 Westside Express Lanes
- 5) SR 400 Express Lanes

The Facilities will have a mix of one lane and two lane bi-directional tolled express lanes with weave zones and direct connect arterials for access. There is expected to be 75 to 100 toll point locations and 150 to 200 tolled lanes. These numbers are subject to change as tolling schema are finalized.

It is also anticipated the Express Lanes will be a combination of at-grade existing roadway, at-grade new construction, and elevated new construction. In multiple areas, the project boundaries for the MMIP overlap with existing Facilities and will impact their operation. It is envisioned that each of these projects will be priced independently and the transactions built into separate trips. Information about the MMIP Express Lane projects is available online at https://majormobilityga.com/.



Figure 4 Major Mobility Investment Program Project Map (Source: <u>https://majormobilityga.com/wp-</u> content/uploads/2019/11/11-12-2019 Transportation-Summit 15.pdf)

SRTA's tolling system reads 6C, SeGo, and time division multiplexing (IAG-TDM) transponders and is interoperable with the Southeast hub.

The forthcoming RFP will apply to all facilities, existing and planned, as well as any ETCS project that is planned during the contract term.

3. Project Goals

- 1) Achieve operational cost efficiencies through the application of innovation, technology, and industry best practices
- 2) Meet or exceed schedule and performance targets
- 3) Safely and smoothly transition the existing facilities to the responsibility of a TISC with minimal revenue loss and disruptions to customers
- 4) Cooperate and collaborate productively with SRTA and its project partners during the development of the MMIP projects; and
- 5) Provide a seamless and quality customer experience throughout SRTA's Express Lane facilities

4. Discussion Topics

In the following section, SRTA has identified primary and secondary topics relevant to the procurement where feedback is requested. Primary topics will be the priority of one-on-one discussions; however, if time permits, secondary topics may also be discussed. For each topic, an overview is provided in this **Section 4** and related questions to be addressed during the one-on-one meetings are provided in **Section 5**.

4.1. Primary Topics

The following topics will be prioritized for discussion in the one-on-ones. Interested vendors should focus on solidifying input on the following topics before doing the same for secondary topics.

4.1.1. Transition of Existing Facilities

The TISC would ultimately transition all four existing facilities (I-85, I-85 Extension, I-75 South Metro, Northwest Corridor) to its control during the contract term. SRTA is contemplating the following criteria for the transition of its existing facilities to the procured TISC:

- 1. Minimize impacts to revenue collection
- 2. Minimize duration of transition timeline and facility closures
- 3. Transition using existing toll gantries (no new gantries to be constructed)
- 4. Maintain pricing and trip building during transition

SRTA seeks to understand, in general, how vendors would approach the transition of the existing facilities given the constraints, including, but not limited to, preferences on timing, responsibilities, installation, and testing.

To further inform the input requested, a summary of the toll point configuration is provided in **Table 1**. This table represents the current distribution and style of toll points. A reversible toll point is any gantry that can operate in multiple directions based on time of day. Single direction toll points operate in only one direction and bi-directional allows for two different simultaneous directions of vehicle traffic.

Each toll point has a combination of travel lanes, fully equipped shoulders and partially equipped shoulders. For the purpose of this Request for Discussion, fully equipped shoulders are defined as any shoulder lane greater than or equal to 10 feet. These shoulder lanes are treated like driving lanes and include Automatic Vehicle Classification (AVC), Vehicle Enforcement System (VES), and Automated Vehicle Identification (AVI). Partially equipped shoulders are defined as any shoulder greater than 4 feet but less than 10 feet. These shoulder lanes are equipped with AVC and VES equipment.

The I-85 Express and Extension toll points only contain travel lanes. The I-75 South Metro and Northwest Corridor contain three fully equipped shoulders and 34 partially equipped shoulders.

Facility	Direction	Gantry Type	Total # of Toll Point Locations	Total # of Tolled Lanes
1 75 South Motro	Reversible	Dual	3	3
1-75 South Metro	Single Direction	Dual	4	6
Northwest Corridor	Reversible	Dual	10	11
Northwest Corridor	Single Direction	Dual	4	4
	Bi-Directional	Single	32	64
1-85 Express	Single Direction	Single	3	3
	Bi-Directional	Single	11	22
I-85 EXTENSION	Single Direction	Single	12	12
	Total		79	125

Table 1 Existing Facilities Toll Point Configuration

Note: A reversible toll lane that operates in both the NB and SB directions is counted as a single lane.

Included in **Appendix A** and **Appendix B** are the straight-line diagrams for the existing facilities and the MMIP projects timeline. These should also be used by the vendors as a reference for providing input on the transition timeline and logistics.

4.1.2. User Experience

For this procurement, SRTA is contemplating ways to prioritize the end-user's experience during the system implementation. The purpose of this is to ensure the functionalities of end-user products (e.g. websites, system screens, etc.) are optimized for those who use them. SRTA seeks to collect input from vendors on effective methods or best practices for optimizing end-user experience during system design/development.

4.1.3. Network

In the current configuration of SRTA's network, SRTA's IT Department is responsible for management of the core of the Metro Area Network (MAN) and existing Toll System Integrators (TSI) manage and maintain the roadside networks (predominantly fiber optic networks) local to the corridors for which they are responsible. The core of the MAN Network is located at the Traffic Management Center (TMC) and at a GDOT Hub building downtown. SRTA maintains switches at the TMC, the downtown Hub, and at SRTA Headquarters (HQ). This network configuration as described is illustrated in the "SRTA Current Network Configuration Diagram" in **Appendix C**.

Under this procurement, SRTA envisions the eventual consolidation of all SRTA roadside networks under one vendor. SRTA seeks to understand best practices in network management from the roadside to the end users (HQ and TMC) and the lines of demarcation vendors would suggest.

4.1.4. Scale/Schedule of Procurement

The MMIP as currently envisioned will require the TISC to provide installation and integration services for five new and four existing facilities over a ten-year period. SRTA seeks feedback on staffing, scheduling or market constraints anticipated with a program of this scale.

4.1.5. Milestones and Payments

SRTA would like to discuss new ways to structure milestones and payments to incentivize the timely completion of projects. The GDOT contractors' schedules dictating project construction are subject to change, therefore, the TISC must be adaptable to project timelines that may shift. SRTA seeks input from vendors on preferred or innovative methods to structure milestones and payments.

4.1.6. Bid Pricing

The TISC will be responsible for existing, planned, and unplanned (at the time of the procurement) electronic toll collection systems over a possible contract term of 20 years. The goal is to have the TISC perform the work needed on facilities that may not be ready for toll system integration anywhere from 3-10 years after the contract is executed. Therefore, SRTA seeks to understand what information vendors may need to accurately price work that may not commence (1) until 3-5 years after the effective date of the contract and (2) until 5-10 years after the effective date of the contract and how to structure the pricing of this work.

4.2. Secondary Topics

The secondary topics that may be discussed in the one-on-ones are as follows:

4.2.1. Service Level Agreements (SLA)

SRTA would like to discuss vendor-proposed SLA structures and standards that will increase operational cost efficiencies, maintain integrator accountability, and produce a fair and balanced transfer of risk between the TISC and SRTA. SRTA seeks to collect input from vendors on what structures and standards best meet these goals for both the existing and planned facilities.

4.2.2. Testing

The TISC will be tasked with developing a testing plan for a variety of roadway and toll point configurations. Given the transition constraints and existing and planned roadway configurations, SRTA seeks to understand how vendors would approach testing (i.e. Roadside Factory Acceptance Testing, Integration Testing, User Acceptance Testing) for the scope and timeline of the procurement.

4.2.3. Contract Term

SRTA envisions a contract term of 20 years for this procurement, however, SRTA seeks input from vendors on the preferred contract term length, including renewals, for a project of this scale.

4.2.4. Image Processing

SRTA is considering requiring the TISC to take on all responsibility for the image processing. Under this scenario, the TISC would be responsible for all systems and labor necessary to provide license plate results for all trips to be sent to the commercial back office. This strategy reduces SRTA's image review operations. SRTA seeks to understand how vendors would approach measuring performance and enabling audits of the image processing service.

4.2.5. Resilient & Redundant Roadside Systems

SRTA is interested in requiring hardened roadside systems that can withstand the environmental conditions present in Georgia without needing HVAC to protect the equipment (e.g. HVAC on roadside cabinets). This reduces SRTA's operational costs and prepares SRTA's roadways for climate change. SRTA seeks to collect input from vendors on how to improve the resiliency of roadside systems.

4.2.6. Data Warehouse

SRTA currently copies large portions of TSI-provided databases to a SRTA data warehouse (maintained by SRTA) to allow for longer data retention and use of Business Intelligence tools. SRTA seeks to collect input from vendors regarding their experience transmitting data to agencies and any best practices in data sharing.

4.2.7. Redundancy

SRTA seeks to collect input from vendors on best practices for providing a logically redundant network for all existing and planned projects.

4.2.8. Reporting

SRTA seeks to collect input from vendors on best practices to define, test, and modify reports before final implementation.

4.2.9. Security

SRTA is looking to procure an ETCS that meets or exceeds cybersecurity standards for the industry. SRTA seeks to understand the vendor's best practices and guidance for securing the ETCS.

5. Process to Participate

SRTA invites vendors, that will serve as the prime contractor, to participate in one-on-one discussions to provide input on the topics presented in this document. Prime contractors, for the purposes of this request, are firms that will execute the contract with SRTA, either as a prime or as a joint venture partner. Rather than respond to this RFD, subcontractors or non-prime vendors (e.g., technology providers, materials suppliers, consultant firms) are instead encouraged to contract firms likely to submit proposals as a prime contractor for the forthcoming procurement. SRTA reserves the right to determine whether an interested party meets the definition of a prime contractor.

The one-on-ones are scheduled to be held January 27th, 2020 through January 31st, 2020 at SRTA Headquarters at 245 Peachtree Center Avenue, 22nd Floor, Atlanta. To participate in this process, vendors are expected to do the following:

Step 1: Review This Document

Please review this document, the linked documents, and the goals and discussion topics of the procurement. Determine whether your firm can provide the requested services for the scope of the procurement and whether your firm has unique perspectives or information to offer SRTA.

Step 2: Schedule an Appointment with SRTA

Each session will be limited to 120 minutes. Discussions by telephone will not be permitted. Available time slots are as follows:

Monday, Jan 27 th	Tuesday, Jan 28 th	Wednesday, Jan 29 th	Thursday, Jan 30 th	Friday, Jan 31 st
9 AM – 11 AM	9 AM – 11 AM	9 AM – 11 AM	9 AM – 11 AM	9 AM – 11 AM
1 PM – 3 PM	1 PM – 3 PM	1 PM – 3 PM	1 PM – 3 PM	1 PM – 3 PM

Interested vendors are instructed to send an email to the following contact requesting three time slot choices, ranked in order of preference:

TISC Request for Discussion Email

SRTA_RFD@srta.ga.gov

Requests should be sent no later than **December 20th at 5:00 PM EST**. SRTA will allocate time slots on a first-come, first-served basis. SRTA in its sole discretion reserves the right to add more time slots.

SRTA will assign time slots and confirm the assignment via email within two business days of the request. Additional instructions may be provided at that time.

Step 3: Attend the Webinar

SRTA will conduct a webinar on **January 8th from 1:00 PM to 2:00 PM EST** to answer questions related to the Request for Discussion and elaborate on topics presented in this document. The webinar will be open to all vendors whether a prime contractor or not. Interested webinar attendees are instructed to send an email, and include questions that they would like discussed during the webinar, to the following contact stating their intention to join along with questions pertaining to the RFD:

TISC Request for Discussion Email SRTA_RFD@srta.ga.gov

Intention to attend and RFD questions should be sent as soon as possible but no later than **5:00 PM EST on December 20th, 2020**. SRTA will send instructions on how to join the webinar by email at this time. The webinar will not be interactive, but SRTA will determine which, if any, submitted questions to answer during webinar. All prime contractors interested in attending the one-on-ones are highly encouraged to attend the webinar.

Step 4: Meet with SRTA

SRTA will meet with interested vendors during the designated time slot. Vendors should be prepared to discuss the topics described in **Section 4** above. Included in **Table 2** and **Table 3** are questions intended to promote discussion. Time will be permitted towards the end of the one-on-one for vendors to introduce their own discussion topics.

	Table 2: Primary Topics								
1.	Transition of Facilities	А. В.	 What would the vendor's strategy be for transitioning existing projects given the four criteria? a. Minimize impacts to revenue collection b. Minimize duration of transition timeline and facility closures c. Transition using existing toll gantries (no new gantries to be constructed) d. Maintain pricing and trip building during transition What is a good balance of revenue loss/protection controls for the vendor? 						
2.	User Experience	Α.	In the vendor's experience, what are effective methods or best practices for optimizing end-user experience?						
3.	Network	А. В. С.	Which network models are the vendor accustomed to? Which ones work best? What is the vendor's approach for network support: vendor supported, agency supported, or a combination of both? How should the network maintenance provider (whether it be the vendor or a subcontractor) be incentivized to minimize network disruptions?						
4.	Scale/Schedule of Procurement	А. В. С. D. Е.	How would the vendor staff for a project of this size? What is the right balance in a procurement regarding SRTA being prescriptive in specifying the vendor's staffing, to assure a project is properly staffed but allow enough flexibility for the vendor to efficiently implement the scope of work? Given the timeline, what level of staffing does the vendor anticipate for maintenance of the roadside and operational back office? How would the staffing requirements for the MMIP Express Lane projects compare to those of previous projects? How would the vendor staff installation (roadside) vs. implementation vs. maintenance?						
5.	Milestones and Payments	А. В.	What is the best way to incentivize timely milestone completions for this procurement? The GDOT contractors' schedules are subject to change. Given the possibility of schedule shifts, what does the vendor recommend for						

	milestones, payment methods, or other aspects of the contract to
	C. What types of schedule shifts are reasonable to ask a TISC to
	absorb?
	D. How can payments and related milestones best be structured to
	share risk between the vendor and SRTA?
6. Bid Pricing	A. What does the vendor need to know about existing infrastructure
	to accurately bid for transitioning existing projects?
	B. How would the vendor bid for the scope of the project in the near
	and long term?
	C. What would the vendor consider a fair mix of bid pricing options?

	Table 3: Secondary Topics										
1.	Service Level	Α.	What does the vendor recommend for a fair and efficient method								
	Agreements (SLA)		of measuring SLAs and assessing penalties?								
		В.	Should there be a grace period for SLAs after implementation? If so,								
			for how long?								
2.	Testing	Α.	In general, how would the vendor approach testing (Roadside FAT,								
			Integration) for the scope and timeline of the MMIP projects,								
			including testing for the existing facilities?								
		Β.	When would the vendor suggest doing User Acceptance Testing?								
3.	Contract Term	Α.	How long should the firm fixed price portion of the contract be?								
		В.	What is the range of contract term lengths the vendor would be								
			willing to sign (with and without renewals)?								
4.	Image Processing	Α.	What metrics would the vendor suggest for measuring the								
	System (IPS)		performance of the IPS?								
		В.	What tools are in place that would allow for the agency to audit the								
			vendor's IPS?								
5.	Resilient Roadside	Α.	What are the best practices for building a system resilient to								
	Systems		Atlanta's environmental conditions?								
6.	Data Warehouse	Α.	What are some of the vendor's experiences with different data								
		_	transfer strategies and connectivity methods?								
		В.	What are the major constraints (e.g. network, data conversion, II								
			infrastructure) that could lead to difficulty in data transfers?								
_		C.	What are some experiences the vendors have with other agencies?								
7.	Redundancy	А.	From a network and II infrastructure perspective, what would the								
-		•	vendor do to ensure redundancy in the event of a failover?								
8.	Reporting	А.	when is the best time to define reports during a system								
		D	Implementation?								
		в.	How would the vendor suggest improving the report design and								
0	Socurity	^	How able is the wonder to adhere to the industry and reversment								
9.	Security	А.	now able is the vendor to adhere to the industry and government								
		Р	Stanuarus for cybersecurity nomenciature?								
		в.	what is the vehiclor's strategy to inture proof their system for								
			new technologies, such as 56?								

SRTA will focus on these topics in the one-on-ones and will discuss secondary topics if time allows. SRTA is not interested in receiving presentations on firm qualifications, capabilities, or similar marketing materials at this time.

SRTA representatives at these meetings will include, but are not limited to, representatives from Project Management, Engineering, Operations, Information Technology, and Legal.

The intent of the discussions is to educate and inform the RFP development team. Interested vendors may prepare materials to facilitate discussions, but under no circumstances will SRTA accept mailed, emailed, or left-behind material.

Information ideas, and concepts presented by vendors during these meetings may be incorporated into the final RFP; therefore, vendors should refrain from providing information, ideas, and concepts considered to be proprietary, confidential, or trade secrets.

SRTA will not assume any expense incurred by vendors participating in this Request for Discussion. Vendors are solely responsible for their own expenses.

SRTA may amend or cancel this Request for Discussion at any time for any reason.

6. Appendices

6.1. Appendix A

Straight Line Diagrams of Existing Express Lane Facilities

(Appendix A to follow in next page)





I-85 EXPRESS LANES (EXTENSION) STRAIGHT LINE DIAGRAM



6.2. Appendix B

Major Mobility Investment Program Express Lane Project Timeline

(Appendix B to follow in next page)

Interchange Reconstruction:										
I-16/I-95		1 1 1				<u>;</u> (1
I-285/I-20 East								-	5	
I-285/I-20 West		· · · ·		I		' I				5
Interstate Widening:										r I
I-85 Phase 1 I-985 to SR 53		÷)	· · ·			
I-85 Phase 2 SR 53 to US 129						· · ·				
I-16 I-95 to I-516			5							
I-285 Advanced Improvement Projects:							· ·			
I-285 Westbound Collector-Distributor Ashford Dunwoody Rd to Chamblee Dunwoody Rd	Lanes								÷	
I-285/Peachtree Industrial Boulevard	Intercho	inge	Impr	ove	men	ts			÷	
I-285 Westside Railroad Crossings Brid Widening I-285 over CSX and I-285 over Norfolk Southern	dge Wide	ening	JS							1
I-285 Westside Bridge Replacements South Cobb Dr over I-285, Bolton Rd over I-285, and D.L. Hollow	well Pkwy ove	er I-285								
I-285 Eastside Bridge Replacements Covington Hwy over I-285, Redwing Cir over I-285, and Glenw I-285 Westbound Auxiliary Lane Extension Extending auxiliary Iane from Roswell Rd to Riverside Dr and	vood Rd over sion replacing the	I-285 Mojunt	Vernor	n Hwy k	pridge (over I-2	85			
Express Lanes:										
SR 400 North Springs MARTA Station to McFarland Pkwy			· · ·		· · ·	· · · · · · · · · · · · · · · · · · ·	· · ·		· · ·	

I-285 Top	End East
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I-285 Top End East																		
I-285: SR 400 to Henderson Rd SR 400: Johnson Ferry Road	to No	orth S	prin	gs N	1ART,	A Sto	ition	•	•	•	1	•	•	•	1	· · ·	•	
I-285 Eastside Henderson Rd to I-20		•	•	•	- - -	•	•	•	•	•	I	•	•	•	I	- · ·	•	

I-285 Top End West Paces Ferry Rd to SR 400

I-285 Westside I-20 to Paces Ferry Rd

Commercial Vehicle Lanes:

I-75 SR 155 to I-475 2016 2017 2018 2019 2020

6.3 Appendix C

SRTA MAN Network Configuration Diagram

(Appendix C to follow in next page)

