

KTA Cashless Tolling - Roadside Toll Collection System (RTCS)

Industry Forum Q&A

Monday, February 1, 2021

Q1. Is it possible to use a single gantry solution for this project?

KTA Response: KTA has initiated design using a dual-gantry configuration as the Authority views it as more of an industry standard, which offers the most flexibility and provides for the most accurate solution. KTA would be open to considering what vendors have to offer in the one-on-one discussions prior to the RFP being published. However, the initial set of five (5) gantry pairs is already in final design and will likely not change before they are awarded and constructed.

Q2. Is KTA planning to do all the roadway construction?

KTA Response: Yes, KTA will perform the construction of the tolling zones, gantries, point of presence (PoP) buildings, utilities, and infrastructure in place. All infrastructure will be ready for vendors to install tolling equipment. Procurement for the RTCS equipment is completely separate and is being implemented through the planned procurement process.

Q3. Are the six (6) existing open road tolling (ORT) gantry systems set up as a dual gantry system?

KTA Response: Yes. Each of the three plazas (mainline, ORT, etc.) are dual gantry with a 31-foot spacing.

Q4. What will the price versus technical evaluation split be? Is it 50/50 or 60/40 or something else?

KTA Response: The split has not been decided yet. This is a best value procurement, so it is not strictly awarded based on low bid. Price is a component, but not the majority factor in the selection.

Q5. Preference for in-pavement versus non-pavement intrusive sensors for solutions?

KTA Response: KTA is open to considering what vendors have to offer. We are open to all solutions, but the Authority is currently planning on an in-pavement solution to meet current axle-based solution accuracies. KTA expects the AVDC system to be highly accurate, so if you have an out-of-pavement solution that performs as well, KTA is interested in hearing about it.

Q6. Are any pavement sensors allowed?

KTA Response: As previously stated in Q5, KTA is open to hearing about any solution that can meet the accuracy requirements.

Q7. For the future three (3) lane sites, are you looking for brackets to be installed?

KTA Response: Conduits for planned expansion lanes need to be pre-wired and bracketry installed in advance, but the actual equipment does not need to be installed until it is required. It

is anticipated within the RTCS contract term that those lane sites would be expanded to three lanes in each direction when warranted at a future time.

Q8. Where will plaza and host servers be placed?

KTA Response: KTA will have an environmentally controlled place to house servers at each tolling zone; however, the Authority is open to considering other options. KTA also has a few other server facilities that are climate controlled where the plaza and host servers could be placed.

Q9. Is the Manual Image Review platform part of the scope?

KTA Response: Manual Image Review is not part of the scope. Image review will be done by KTA. KTA is also upgrading their Back Office System (BOS) and will include that software in the KTA scope.

Q10. What is the anticipated Percent (%) mix of video transactions as a percent of all traffic?

KTA Response: Currently KTA has around 62% electronic toll collection (ETC) penetration with a goal to achieve 70% or greater ETC penetration by Cashless Tolling Go Live. In the RFP package, the Authority will include projected traffic numbers, which will be forecasted between 60-70% AVI.

Q11. Who will be responsible for traffic management during installation?

KTA Response: Maintenance of Traffic (MOT) for installation of toll technology equipment will be the responsibility of the RTCS contract.

Q12. Would you be willing to share who the current system incumbent / integrator is for the current system at the six (6) existing ORT zones?

KTA Response: The current system vendor is TransCore. From an historical standpoint, KTA procured electronic tolling equipment in 1995 and TransCore was the selected vendor. At that time, KTA had gates on all lanes to ensure revenue protection. In order to remove gates for free-flow lanes, TransCore added cameras in dedicated K-TAG lanes in all but two plazas that do not have dedicated K-TAG lanes. Over the last few years, the Authority has installed six (6) ORT gantries at the three (3) mainline plazas using the same legacy vendor contract.

Q13. Is the dual gantry design final and does it include finalization of spacing?

KTA Response: The decision is not final as of this meeting and KTA is open to hearing what other vendor's design and spacing requirements are and how this design and the proposed spacing impacts performance in the upcoming one-on-one sessions. If there is a major reason to change the planned design, KTA would like to know as soon as possible as this is a critical path item for design finalization. See Q1 above for additional details.

Q14. As a follow-up question regarding in-pavement sensors, are there any specific concerns regarding in-pavement sensors?

KTA Response: There are no concerns with in-pavement sensors. KTA has had equipment in pavement throughout the life of the existing system. If there are options without anything in pavement, that makes some elements easier, but KTA is currently planning on there being some in-pavement sensors required to meet accuracy key performance indicators (KPIs).

Q15. Can Quality Assurance (QA) Manager and Test Manager be same person?

KTA Response: They are not required to be different people and KTA would be open to hear approaches that consolidate these positions. However, the Test Manager has specific roles, specifically responsible for testing and the QA Manager has specific roles to manage quality of the entire project.

Q16. Is KTA open to a solution that maps vehicle volume and other features to inferred axle count?

KTA Response: KTA is open to any solutions; however, KTA requires accurate classification.

Q17. Does KTA require by statute or by a business rule axle counting and charging on per-axle basis?

KTA Response: KTA does have business rules to support only axle-based classification, but not by statute. All toll revenue classifications are axle based and it is how the Kansas Turnpike's Traffic & Revenue is based. It would be challenging to change at this point, but KTA is open to hearing other available options.

Q18. Are UPS provided in PoP buildings?

KTA Response: KTA will be responsible for providing all power and UPS to the vendor equipment.

Q19. Can the dual gantries in opposing directions of travel be placed further apart to avoid RF interference?

KTA Response: KTA has placed them based on the design of the gantry foundations, and to try to limit overall impacts. KTA has designed these so that the downstream gantry RF does not oppose the opposite direction gantry. (For example, locate the SB zone north of the NB zone and not vice versa to help decrease interference.) In addition, KTA has performed a site survey at each proposed location and had a RF spectrum analysis performed and did not find any interference. That RF analysis report will be provided as an attachment in the RFP; however, vendors should plan to perform their own due diligence related to RF interference.

Q20. In some of the pictures shown, it appears there are some dedicated manual lanes. Are those dedicated manual lanes going to be part of scope too?

KTA Response: The existing dedicated manual lanes are going away under KTA's conversion to Cashless Tolling. KTA is moving away from tolling at ramp plazas and manual tolling. All lanes will be Cashless Tolling and all the non-ORT lanes will be disabled after Cashless Tolling Go Live.

Q21. Is KTA already reading and processing the SeGo, 6C and TDM protocols?

KTA Response: KTA is reading those protocols at some locations today. KTA is in the process of updating lane firmware and software and expect to have that completed over the next several months. While the Authority can read TDM and 6C, KTA does not process those transactions today. KTA is moving in that direction with the Authority's interoperability initiatives to be compatible with National IOP agencies.

Q22. For Wrong Way Detection, is it a beacon, a notification, or something else?

KTA Response: There will be requirements for notifications with images and video clips, as well as an interface to LED "Wrong Way" signs that will be specified in the RFP.

Q23. Are there any hosting restrictions for the central solution for onsite versus cloud based?

KTA Response: At this point KTA prefers on-premise solutions but is open to considering Cloud based approaches. KTA has historically used on-premise servers for all of their toll technology solutions; however, KTA is willing to consider Proposals with components of the RTCS being in the Cloud as long as the Proposer has a demonstrated proficiency of an existing RTCS in a Cloud environment.

Q24. Your design is quite detailed and may be tailored by an existing solution. How much latitude will a vendor have for an alternative, high performing solution?

KTA Response: KTA is open to discussions with vendors on their proposed solution(s). KTA's goal is to get the best value and the best performing system. The Authority will evaluate all proposals received in a fair and equitable manner based on the scoring criteria.

Q25. From maintenance perspective, will the transition to KTA happen immediately after site testing or will the vendor have a period of providing maintenance services at the roadside?

KTA Response: KTA is in the process of developing the planned approach for the maintenance transition. Prior to the maintenance handoff, KTA needs to make sure the KTA toll maintenance crew is equipped to perform that maintenance with proper training and able to provide the support that is required to support the new system.

Q26. Are you able to disclose project budget?

KTA Response: KTA will refrain from answering this question. KTA is looking for best value and is informed on current industry standard RTCS costs.

Q27. Is the contractor expected to provide image review software for KTA's manual image review?

KTA Response: KTA is currently re-writing the BOS. KTA's plan is to include image review software in KTA's BOS software and does not expect the vendor to provide this software. KTA expects the transaction data and images from the vendor but does not expect the software for manual review of those image-based transactions.

Q28. Can equipment be mounted 21 ft 3 inches, but not below 17 ft 6 in?

KTA Response: Yes, the equipment cannot be below 17 ft 6 inches. If the system can read appropriately above bottom truss cord, there should not be an issue.

Q29. Will KTA be providing Tier 1 Maintenance support resources during interim maintenance prior to System Acceptance?

KTA Response: Based on the Requirements in the RFP, the vendor will provide Maintenance up to System Acceptance. At the time of System Acceptance, the vendor will start getting paid for Maintenance Services. This time period is an opportunity to tune the RTCS in preparation for System Acceptance and for On-The-Job (OTJ) training of the KTA Maintenance Technicians. During this time period, depending on the transition plan proposed by the vendor and approved by KTA, the new installation locations will likely not be used for revenue collection, but in a "Pre-Production" mode, where they are online but interfacing to a non-production system for tuning and preparation for Cashless Tolling Go Live for the roadside and BOS at the same time.

Q30. Are there many restrictions to maintenance of traffic (MOT) time periods for installation?

KTA Response: The I-70 corridor has MOT restrictions due to the high volumes of traffic; therefore, there are some restrictions in this corridor in the RTCS contract. There are some 4-lane and 6-lane sections that can be treated slightly different, but those restrictions will be provided as an attachment in the RFP.

Q31. Any preference for on-premises versus cloud environment?

KTA Response: See response to Q23 above.

Q32. Are there any small business and/or DBE requirements?

KTA Response: KTA does not plan to have any requirements with respect to small or disadvantaged businesses, but if they are included at a later date, they would be listed in the front-end section of the RFP.

Q33. As KTA will be performing the Manual Image Review, will the RFP dictate an ALPR rate to standardize the offerings?

KTA Response: Even though KTA will perform Manual Image Review, KTA wants high-performing License Plate recognition where the focus will be on accuracy. KTA will set their Business Rules based on accuracy and will expect consistency in the confidence levels provided to KTA in the transactions. There will be an ongoing discussion on what this automation rate KPI should be as part of the contract.

Q34. Will design and installation drawings require a Kansas registered Professional Engineer stamp?

KTA Response: Any design or installation drawings prepared for the project must be signed and sealed by a Professional Engineer (P.E.) registered in the State of Kansas. Please note this clarification from the response provided during the Industry Forum.

Q35. Does the RTCS interact with ITS or ATMS for safety purposes?

KTA Response: There is currently no interaction between the RTCS data streams and ITS components that KTA has implemented internally.

Q36. In lieu of physical servers for host, will cloud based solutions be acceptable?

KTA Response: See response to Q23 above.

Q37. As KTA will be providing L1 (Tier 1) maintenance and technicians, is the RTCS contractor to provide the software solution for monitoring and to report outages or issues?

KTA Response: Yes, the RTCS vendor will provide this and it will be a requirement in the RTCS contract.

Q38. Can KTA provide details on the axle-based classification requirement?

KTA Response: KTA's rate schedule is based on axles. For example, a passenger car is Class 2 and a five-axle truck is Class 5. KTA's maximum class is Class 9 for anything with 9 axles or greater.

Q39. Will KTA be responsible for obtaining the FCC license for tolling locations?

KTA Response: Yes, KTA is ultimately responsible, but KTA will work with the vendor to apply for and obtain the RF FCC licensing.

Q40. Is KTA planning on replacing all existing ORT hardware including readers or re-using this equipment?

KTA Response: The plan is to replace all equipment and readers with new equipment.

Q41. Is over-height detection a requirement?

KTA Response: KTA does not plan to include anything in the RFP for over-height detection. As KTA moves to Cashless Tolling with ORT plazas, they will not have the ability to stop vehicles as done currently.

Q42. Will KTA please provide their vision as to the actual transition for gated ticket system to the Multi-Lane Free Flow (MLFF)? For example, extended simultaneous operations, etc. How will you transition from the gated system to the final all electronic tolling (AET) product?

KTA Response: The planned approach is that the new system will be installed for a few months ahead of Go Live since it is a separate system. During this time, KTA will be able to look at data from both systems and verify system performance to make sure the RTCS meets the requirements prior to Go Live of the Cashless Tolling system.

Q43. Given the long history of KTA being a gated, ticket-based system and collecting nearly 100% of KTA's revenue, will you share any insights into your lost revenue contractually?

KTA Response: When KTA was manual toll collection/cash only, the Authority collected 100% of the revenue and were required by statute to do that. In the past, KTA also had gated exit points in K-TAG lanes which added revenue protection for the electronic tolling lanes. With the transition to ORT at the three (3) mainline plazas, KTA transitioned to video violation enforcement. Under this system, KTA has collected the amount of revenue needed to cover any lost revenues. KTA is proactively preparing for the transition to Cashless Tolling and is putting in place the necessary mitigation strategies to collect the amount of revenue needed to cover any projected revenue leakage due to the ORT environment. KTA is also currently evaluating scenarios for the pandemic recovery and is willing to share that information with their partners on what Traffic and Revenue is projected to look like and forecasting through the recovery.

Q44. What is plan for cutover from Manual to Cashless Tolling through ORT?

KTA Response: See response to Q42.

Q45. Should the RTCS need to supply the new maintenance management platform or will KTA uses its own and the vendor uses its own?

KTA Response: KTA will not use its existing platform. The MOMS will be provided by the vendor, but KTA will be the hands and feet for maintenance on equipment in lanes for the vendor and KTA will use the vendor's MOMS for that activity.

Q46. Will the list of attendees and PowerPoint be sent to the attendees at the end?

KTA Response: Yes, the list of attendees and presentation will be provided to meeting attendees.

Q47. Is there a plan to transition ORT tolling sites to RTCS during installation, such as divert traffic to manual lanes?

KTA Response: KTA has discussed this as an option, but at this time the final transition plan is not in place. KTA would like to hear thoughts on transition from vendors in the one-on-one sessions and then work with the vendor selected to come up with an appropriate, approved transition plan.

Q48. How will KTA gauge the ultimate success of Cashless Tolling? For instance, is the objective lower costs of toll collection or other metrics like KTA electronic penetration percentage?

KTA Response: Steve Hewitt, KTA CEO, covered some of these goals and objectives at the beginning of the presentation. KTA wants to offer a more modernized system for its customers and create a safer system with free-flow travel, but at the same time KTA wants to protect its revenue. As part of their mission, KTA has been working hard to enhance the customer experience and develop and execute its five-year strategic plan. There is a balance between KTA's business-minded direction, keeping tolls at a fair and reasonable rate, protecting revenues, and also modernizing the system.

Q49. What is the forum for discussing alternative designs?

KTA Response: Questions and ideas on alternative designs can be discussed during the one-on-one vendor meetings prior to the RFP being finalized and advertised. They can also be a part of Oral Interviews and Vendor Demonstrations during the proposal process.

Q50. Will transponders be a part of the procurement?

KTA Response: With the Cashless Tolling conversion, KTA is moving into a different area with tri-protocol transponders. With that, the transponder procurement will likely be a separate project.

Q51. Will answers to the vendor industry forum questions be provided to attendees?

KTA Response: As a follow up to the industry forum, KTA will review questions and document responses, then post responses on the KTA website.