



E-ZPass Group
ETC EQUIPMENT AND SERVICES
REQUEST FOR PROPOSALS
Solicitation No. 2021-IAENG-0001

Pre-Proposal Scope of Services Meeting (Optional)

June 16 2021

2 p.m. to 3 p.m. EDT Online
via Web Conference

Proposal Due Date

September 14, 2021

Physical Delivery Address for

USB Proposal Submissions:

NCTA

2501 Aerial Center Pkwy, Suite 200

Morrisville, NC 27560

Attn: Eliza Davis

Physical Delivery Address for

Physical Transponder Samples:

Maryland Transportation Authority

2310 Broening HWY

Baltimore, MD 21237

Attn: Jake Royer

Issue Date: June 7, 2021

Updated October 2025

Revision Table

Description	Date
Addendum 01 (Addendum only)	August 3, 2021
Addendum 02 (Addendum only)	August 11, 2021
Addendum 03 (Complete RFP update)	August 20, 2021
Addendum 04 (Complete RFP update)	August 26, 2021
Addendum 05 (Complete RFP update)	August 31, 2021
Addendum 06 (Complete RFP update)	December 13, 2021
Contract Year 2 - Amendment 1	March 2023
Contract Year 3 – Amendment 2	March 2024
Contract Year 4 – Amendment 3	October 2024
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E-Z Pass Group ETC Equipment And Services

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Part I

Administrative

Part I: Administrative

1. Notice of Request for Proposals

TITLE: E-ZPass Group – ETC Equipment and Services Request for Proposals

ISSUING DATE: June 7, 2021

ISSUING AGENCY: North Carolina Turnpike Authority (NCTA) on behalf of the E-Z Pass Group

CONTACT PERSON: Eliza Davis

1.1. E-ZPass Background

The E-ZPass Program is the largest, most successful interoperable toll collection program in the world. It consists of 34 members (toll agencies, authorities, companies) in 19 states, servicing more than 27 million customer accounts linked to 43 million transponders, and supporting the collection of over \$13.4 billion in annual toll revenues of which more than \$11.3 billion is collected electronically and over \$5.2 billion transferred between agencies through our toll reciprocity programs.

The term “E-ZPass Group” as used in this Request for Proposals (RFP) refers to all E-ZPass Members listed in Attachment 1. The Members of E-ZPass Group may change after the issuance of this RFP.

The E-ZPass Program has continued to be innovative by implementing E-ZPass Plus, which makes paying for parking at participating airports and garages easier along with E-ZPass-on-the-GO, a convenient package that contains a prepaid tag ready for use that is sold at convenient locations such as participating local convenience stores, rest areas, DMV's, or simply ordering online.

Historically, E-ZPass has achieved interoperability between its members through common agreement to use TDM protocol RF Readers and Transponders. However, E-ZPass members have committed to implement multi-protocol Readers (TDM, SeGo, and 6C) and some have issued multi-protocol Transponders (TDM, SeGo, and/or 6C) to enhance interoperability capability.

E-ZPass Transponders and Readers are used in a wide variety of tolling environments as defined in Part III: Technical Requirements, Section 2. E-ZPass Transponders may also be used for non-tolling applications such as parking and traffic management.

1.2. The Procurement Process

The E-ZPass Group is implementing a two-step procurement process as summarized in this RFP. The process is described in more detail in Part I: Administrative, Sections 2 and 3. While the North Carolina Turnpike Authority (NCTA) is the host agency for the primary procurement to qualify/certify Vendor(s) and products, each E-ZPass Member wishing to purchase qualified/certified Equipment or Services will enter into a separate contract with qualified Vendor(s). The contract terms for the subsequent awards will start on the date of such award(s) and otherwise follow the terms defined in the product specific Member purchase order.

1.3. Scope of Services

The E-ZPass Group is seeking qualified/certified Vendors to provide E-ZPass Services and Certified Equipment as summarized below. Proposers may propose any equipment and services within the constraints as stated. Proposers are also encouraged to propose equipment with other features that may benefit the E-ZPass Group and its Members. Full details of the requirements for the Equipment and Services are found in Part III: Technical Requirements. The quantity and types of Equipment and Services purchased will vary and Vendors will not have a guarantee of exclusivity or quantity purchased.

1.3.1. Transponders

E-ZPass Transponders (TDM, SeGo, and/or 6C – individual protocols or multi-protocol combinations), with related support devices (hand-held Reader, Programmer, and Tester) and support services.

TDM Transponder Models anticipated by E-ZPass Group Members are:

- Interior Portable between vehicles.
- Exterior version for vehicles with windshield or cab design that restricts performance of an Interior Transponder with options for mounting on roof, bumper, or license plate (special tools should not be required).
- Interior Feedback.
- Interior Switchable.
- Interior Waterproof.

If proposing a TDM protocol Transponder, Proposer shall propose the related support devices for that protocol.

SeGo Transponder Models anticipated by E-ZPass Group Members are:

- Interior Sticker (permanent).
- Interior Portable between vehicles.
- Exterior version for vehicles with windshield or cab design that restricts performance of an Interior Transponder (format and mounting location per Vendor recommendation).
- Interior Feedback.
- Interior Switchable.

If proposing a SeGo protocol Transponder, Proposer shall propose the related support devices for that protocol.

6C Transponder Models anticipated by E-ZPass Group Members are:

- Interior Sticker (permanent).
- Interior Portable between vehicles.

- Exterior version for vehicles with windshield or cab design that restricts performance of an Interior Transponder (format and mounting location per Vendor recommendation).
- Interior Switchable.

If proposing a 6C protocol transponder, Proposer shall propose the related support devices for that protocol.

- Multi-Protocol Transponder Models:

The E-ZPass Group will consider any model that a Proposer offers.

If proposing a Multi-Protocol transponder, Proposer shall propose the related support devices for it.

1.3.2. Multi-protocol Reader

Multi-protocol E-ZPass Reader supporting at least TDM, SeGo, and 6C protocols, with related maintenance and support services:

- Standard Toll Multi-Protocol Reader – comprising Reader unit, antennas, cables, and accessories.
- Value Multi-Protocol Reader – comprising Reader unit, antennas, cables, and accessories.

E-ZPass Members deploy readers within equipment cabinets and in more exposed (e.g. pole mounted) conditions. Proposers may offer different models for each type of deployment.

1.3.3. Legacy Reader Maintenance and Support

Legacy E-ZPass Reader maintenance and support services for:

- Kapsch JANUS Multi-Protocol Reader,
- Kapsch BADGER Reader,
- TransCore Encompass 6 Reader.

1.4. RFP Contact

Eliza Davis is the contact person for this RFP. Any questions regarding this Notice or requests for an RFP package shall be directed in writing to Mrs. Davis by e-mail at svc_IAG_EZPASS@ncdot.gov.

1.5. RFP Registration & Information Posting

Proposers that register for this RFP (by email to the RFP Contact per Part I: Administrative, Section 1.4) will be informed of new information releases via email. However, it is the responsibility of all prospective Proposers interested in responding to this RFP to routinely check the NCTA website at <https://connect.ncdot.gov/business/Turnpike/Pages/EZPNextGen.aspx> for any revisions, responses to questions, addenda, and changes to schedule and announcements related to this RFP. Neither The E-ZPass Group, nor NCTA assume any responsibility to ensure that Proposers receive RFP information releases.

On release, RFP Addenda become part of the RFP and are binding on all Proposers. If there is a conflict between Addenda, the most recent Addendum shall apply. RFP registration is not a prerequisite for Proposal submission.

2. General Information for Proposers

2.1. Proposal Schedule

This table provides a planned schedule for the RFP process. The E-ZPass Group reserves the right to change any of these dates. In the event of such a date change, Proposers will be notified in accordance with Part I: Administrative, Section 1.5 Registration & Information Posting.

Procurement Stage	Date
Issue RFP	June 7, 2021
Pre-Proposal Conference (not mandatory)	June 16, 2021 2:00 PM EDT
Due Date for Proposer Questions (including Requests for Exceptions to Terms & Conditions)	June 24, 2021 04:00 PM EDT
E-ZPass Group Response to questions submitted by email or raised at Proposer Conference	July 2, 2021 (Set 1) and August 20, 2021 (Set 2)
Proposal Due (refer to Section 2.14)	September 14, 2021 04:00 PM EDT
Proposer Validation Testing	September 15, 2021 to December 12, 2021
Announcement of E- ZPass qualified Vendors, qualified services and qualified equipment. Request for first year pricing quotation and request for evidence of Equipment Certification	December 14, 2021
Submission of evidence for equipment certification / validation testing	January 10, 2022 - onward, dependent on Vendor Validation Testing approved.
E-ZPass Approval	January 31, 2022
Initial Pricing Quotation Due	February 7, 2022
Individual E-ZPass Member Contracts	As Needed throughout Term of the Contract
E-ZPass announcement of certified Vendor Equipment	Continuous throughout the Term of the Contract
Purchase equipment from an individual Vendor	After Vendor's Equipment is certified by E-ZPass Group

2.2. Policy Statement

This procurement shall be conducted in accordance with all applicable Federal and State laws and regulations.

2.3. RFP Inquiries and Notices

Any questions regarding this RFP shall be directed in writing (using the form provided in Exhibit A Forms, (Exhibit A-1 Proposer's Question Submittal Form) to the email address identified in Part I: Administrative, Section 1.4 RFP Contact. Only written inquiries will be accepted by the E-ZPass Group, and only written responses will be binding upon E-ZPass Group Members. Any inquiries received after the deadline referenced in Part I: Administrative, Section 2.1 Procurement Schedule may or may not be answered by the E-ZPass Group at their sole discretion. All responses to inquiries will be posted on the NCTA website as specified in Part I: Administrative, Section 1.4 Registration & Information Posting.

2.4. RFP Pre-Proposal Conference (not mandatory)

A Pre-Proposal Conference will be held on the date and time indicated in Part I: Administrative, Section 2.1, Procurement Schedule. Proposers may participate via online conference. Participation is not mandatory.

Proposers that plan to participate in the Proposer Conference are requested to pre-register (by email to the RFP Contact per Part I: Administrative, Section 1.4) listing the name of the Proposer's primary participant. Online conference details will be provided to those who register.

2.5. Non-Solicitation Provision

During the RFP period from the issue date until notification of successful Vendor(s), Proposers shall not contact any employee or agent of the E-ZPass Group Members, or NCTA in regard to this RFP, except as directed in Part I: Administrative, Section 2.3 RFP Inquiries and Notices and Section 2.4 RFP Pre-Proposal Conference. Violation of this provision shall result in disqualification of the Proposer.

2.6. Right to Reject

The E-ZPass Group retains the right and option to reject any and all Proposals.

2.7. Responsiveness of Proposals

E-ZPass Group Members reserve the right to reject any Proposal as non-responsive if the Proposal fails to include any of the required information in the specified manner and order, as further detailed in Part IV: Proposal Contents and Submission Format.

2.8. Right to Cancel

E-ZPass Group Members reserve the right to cancel this RFP. If this occurs, an RFP Addendum will be issued, and registered Proposers will be notified directly.

2.9. Right to Amend and Addenda

E-ZPass Group Members reserve the right to amend, insert, or delete any item in this RFP if it is determined to be in their best interest. If it becomes necessary to revise any part of this RFP, a written addendum to the solicitation will be sent via email to the RFP email list and will be posted to NCTA's website in accordance with Part I: Administrative, Section 1.5 Registration & Information Posting. E-ZPass Group Members expect to issue the last addendum no later than the date for response to questions provided in Part I: Administrative, Section 2.1 Procurement Schedule. E-ZPass Group Members will not be bound by, and the Proposer shall not rely on, any oral or written communication or representation regarding the RFP Documents, except to the extent that it is contained in an addendum to these RFP Documents or in the Questions and Answers as posted on the NCTA website. In case of a conflict between addenda, the latest addendum shall apply. Proposers are required to confirm the receipt of all addenda issued to this RFP by completing Exhibit A: Forms, Section 3 RFP Document Acknowledgment form.

2.10. Written Clarifications

The E-ZPass Group may request (via NCTA) written clarifications to Proposals. Such request will identify the due date for response. If the requested information is not received by the date requested, the Proposer's evaluation may be adversely affected. Any and all ambiguities shall be viewed and interpreted as favoring the E-ZPass Group Members.

2.11. Oral or Referenced Explanations

E-ZPass Group Members will not be bound by oral explanations or instructions given by anyone at any time during the Proposal process or after Contract award. E-ZPass Group Members will not consider Proposer-referenced information not included in the Proposal; however, the E-ZPass Group may consider other sources in the evaluation of Proposals, such as reference reviews or financial ratings.

2.12. Oral Presentations and Interviews

Oral presentations and interviews are not anticipated. However, the E-ZPass Group reserves the right to add this stage to the Proposal process.

2.13. Proposal Submittal Deadline

Proposals shall be delivered to the front desk of the North Carolina Department of Transportation (NCDOT) building location presented on the cover page of this RFP, before the due date and time provided on the cover and in Part I: Administrative, Section 2.1 Procurement Schedule. NCTA will confirm receipt of Proposals via email. NCTA will not accept Proposals delivered after the stated due date and time.

2.14. Submittal Responsibility

The responsibility for submitting a Proposal to NCTA on or before the stated time and date will be solely and strictly the responsibility of the Proposer. Neither E-ZPass Group Members nor NCTA will be responsible for delays caused by the United States mail delivery, common carrier, or any other occurrence.

2.15. Waivers

E-ZPass Group Members may waive minor informalities or irregularities in Proposals received where such is merely a matter of form and not substance, and the correction or waiver of which is not prejudicial to other Proposers. Minor irregularities are defined as those that will not have an adverse effect on E-ZPass Group Members' interest and will not affect the price of the Proposals by giving a Proposer an advantage or benefit not enjoyed by other Proposers.

2.16. Proposal Disposition

All Proposals submitted in response to this RFP shall become the property of the E-ZPass Group Members. The return of Proposals not selected for award shall be at the sole discretion of the E-ZPass Group

A Proposer shall mark those sections of its Proposal that it believes contain proprietary information. Irrespective of the foregoing sentence and notwithstanding anything marked in the Proposal to the contrary, by submission, Proposers acknowledge that the E-ZPass Group Members may disclose information in Proposals in accordance with the provisions of Part V: Terms & Conditions, Article 6.01 Confidentiality.

2.17. Modification or Withdrawal of Proposals

E-ZPass Group Members will permit modifications to a Proposal after Proposal submittal until the specified due date and time for accepting Proposals provided in Part I: Administrative, Section 2.1 Procurement Schedule. The Proposal may be picked up by a representative of the Proposer provided that the request to modify is in writing, is executed by the Proposer or the Proposer's duly authorized representative and is filed with NCTA. It is the Proposer's responsibility to resubmit a Proposal before the deadline in accordance with the instructions and requirements for Proposal submission detailed in this RFP.

A Proposer may withdraw a Proposal without prejudice prior to the Submittal deadline provided in Part I: Administrative, Section 2.1 Procurement Schedule, provided that the request is in writing, is executed by the Proposer or the Proposer's duly authorized representative, and is filed with NCTA.

2.18. Exceptions to Terms & Conditions

Prospective Proposers shall carefully examine Part V: Terms & Conditions. The selected Proposer will be required to enter into individual contracts with individual E-ZPass Group Members that include the terms and conditions set forth in Part V: Terms & Conditions and the E-ZPass Group Member specific terms & conditions set forth in Part V: Terms & Conditions, Appendix A - E-ZPass Group Members Terms & Conditions.

If a prospective Proposer takes exception to any such term or condition, including any E-ZPass Group Member specific requirement, the prospective Proposer must submit such exception in writing to the Procurement Coordinator by the date noted in Part I: Administrative, Section 2.1 Procurement Schedule as the deadline for submission of exceptions to terms and conditions. Such exceptions must be stated in detail and, if the prospective Proposer is seeking alternative language for a particular term or condition, accompanied by the prospective Proposer's requested alternative language.

The E-ZPass Group Members will consider such exceptions and determine, in their sole discretion, whether to modify any term or condition. The E-ZPass Group Procurement Coordinator will issue addenda as official responses to the properly submitted exceptions pursuant to Part I: Administrative, Section 2.3 RFP Inquiries and Notices. After the final addendum regarding exceptions is issued in accordance with the date noted in Part I: Administrative, Section 2.1 Procurement Schedule, Proposers responding to this RFP will be deemed to have agreed to all of the terms and conditions in Part V: Terms & Conditions and each E-ZPass Group Member's terms and conditions in Part V: Terms & Conditions, Appendix A - E-ZPass Group Members Terms & Conditions., as modified by any addenda. The only permitted variance is that a Proposer may offer substitute terms for Part V: Terms & Conditions, Article 4.02, Licenses, and/or the Warranties within Part V: Terms and Conditions, Article 7, but only if the substitute terms are more favorable to the E-ZPass Group Members than the stated minimums. Any such substitute terms shall be specifically identified and included in the Proposal as part of the Proposer's response to Part III: Technical Requirements.

2.19. Proposer's Bid

All submitted Proposals, including Not to Exceed (also called maximum) pricing for Equipment and Services, will be deemed to be irrevocable offers from the Proposal submission date until Notice Of Award. Prospective Proposers are advised that individual E-ZPass Group Members have the discretion to decide, in accordance with their operational needs and procurement processes, if and when to enter a contract with Vendor(s) certified as a result of this RFP process. Further, prospective Proposers are advised that an E-ZPass Group Member's Vendor selection and/or contract execution may be subject to the approval of the Member's Board and/or governmental entities within the E-ZPass Group Member's state.

2.20. Proposer Eligibility

Proposals will only be accepted from legal entities, formed under and regulated by the laws of a State of the United States or a foreign jurisdiction, which are qualified or registered to do business in at least one of the jurisdictions in which the E-ZPass Group Members are located. Proposals from common law joint ventures will not be accepted. A Proposer must be qualified or registered to do business in all jurisdictions in which the E-ZPass Group Members are located no later than sixty (60) days following issuance of a notice to the Proposer that it has been selected for Contract Award.

Firms or individuals who participated in the preparation of this RFP on behalf of any E-ZPass Group Member including, but not limited to, firms or individuals who provided advice to any E-ZPass Group Member regarding this RFP, are prohibited from: serving as a Vendor or subcontractor (as defined in Part V: Terms & Conditions) in a Proposal submitted in response to this RFP; in any other way participating in this procurement; and otherwise participating in the contract which is the subject of

this procurement. All prospective Proposers are hereby further advised to refer to each E-ZPass Group Member's Part V: Terms & Conditions, Appendix A - E-ZPass Group Members Terms & Conditions for any specific named entities who are prohibited from serving as a Vendor or subcontractor in a Proposal submitted in response to this RFP or from otherwise participating in the contract which is the subject of this procurement; and for any restrictions which, if applicable, result in individuals or firms being prohibited from serving as a Vendor or subcontractor in a Proposal submitted in response to this RFP or from otherwise participating in a contract which is the subject of this procurement.

2.21. Errors, Omissions, and Ambiguities

Proposer shall not take advantage of or benefit from any apparent error, omission, or ambiguity in the RFP. Proposer shall bring any such possible scenario to the attention of the E-ZPass Group Procurement Coordinator.

2.22. Procurement Summary

The procurement process is intended to allow multiple Proposers to become qualified Vendors during the initial procurement phase, and during the Term of the Contract to allow new Proposers to join the Procurement or existing qualified vendors to add new Equipment and Services. This section describes the process for the initial procurement to be completed in 2021 and Annual Enrollment during subsequent years. The Vendor Certification process is expected to be conducted within the allocated period, not more than two calendar months per year.

2.22.1. Scenario-001 (Responding to Initial RFP) – New Proposer with No prior Vendor Certification

Note: “New Proposer” means new to this RFP Procurement Process, even if previously dealt with E-ZPass.

1. Proposer submits Proposal including not to exceed Pricing. E-ZPass Group determines if Proposal is responsive in accordance with terms as outlined in this RFP. If the Proposal is determined to be non-responsive, the Proposer is notified, and no further action is taken by E-ZPass Group.
2. E-ZPass Group evaluates Proposal to determine if Proposer, along with its services and equipment are qualified. If the Proposer is determined to be non-qualified, the Proposer is notified, and no further action is taken by E-ZPass Group. If any services or equipment are determined to be non-qualified, Proposer is notified accordingly.
3. E-ZPass Group approves Proposer and qualified services. E-ZPass Group approves qualified equipment subject to successful completion and E-ZPass Group approval of the Product Certification Test(s).
4. Proposer submits Initial Pricing Quotation.
5. Proposer obtains E-ZPass Group Product Certification for qualified Equipment using the E-ZPass provided Test Plan as outlined in Part III of this RFP.

6. Upon Approval of the Product Certification Test results, Proposer's equipment is added to the E-ZPass Group Certified Equipment list.
7. E-Z Pass Members may establish a contract with any or all qualified Proposers to enable subsequent purchase of qualified Services or certified Equipment in accordance with the purchasing guidelines as established in this RFP, Part I and Part V.

2.22.2. Scenario-002 (Responding to Initial RFP) – New Proposer with existing Vendor Certification

1. Proposer submits Proposal, including documentation of existing E-ZPass Equipment Certification and not to exceed Pricing. E-ZPass Group determines if Proposal is responsive in accordance with terms as outlined in this RFP. If the Proposal is determined to be non-responsive, the Proposer is notified, and no further action is taken by E-ZPass Group.
2. E-ZPass Group evaluates proposal (technical and financial) to determine if Proposer, along with its services and Equipment are qualified. If the Proposer is determined to be non-qualified, the Proposer is notified, and no further action is taken by E-ZPass Group. If any services or equipment are determined to be non-qualified, Proposer is notified accordingly.
3. E-ZPass Group approves Proposer and qualified services. E-ZPass Group approves qualified Equipment subject to successful review and E-ZPass Group approval of the documentation of existing Product Certification Test(s).
4. Proposer submits Initial Pricing Quotation.
5. Proposer obtains updated E-ZPass Group Product Certification for qualified Equipment and Proposer's Equipment is confirmed on the E-ZPass Group Certified Equipment list.
6. E-Z Pass Members may establish a contract with any or all qualified Proposers to enable subsequent purchase of qualified Services or certified Equipment in accordance with the purchasing guidelines as established in this RFP, Part I and Part V.

2.22.3. Scenario 003 (Annual Enrollment: adding Proposer and/or adding Equipment/Services to the E-ZPass list) – for new Equipment or Services from new Proposer or existing Vendor

Note: "New Proposer" means new to this RFP Procurement Process, even if previously dealt with E-ZPass. "Existing Vendor" has already been qualified through this RFP Procurement Process.

1. E-Zpass Group begins Opens Enrollment Period.
2. Existing Vendor with new Equipment/Services must submit both a Technical Proposal and Price Proposal (even if the price is unchanged).
 - **Note 1:** The Technical Proposal submission does not need to be submitted for all products, ONLY for the new Equipment/Services.
 - **Note 2:** Reference RFP Part IV, Section 1.2, 1.3.2, & 1.4 for Annual Enrollment Proposal contents and submission requirements.

3. New Proposer must submit both a Technical Proposal and Price Proposal.
 - **Note 1:** The Technical Proposal submission shall be submitted for all New Products (Equipment/Services).
 - **Note 2:** Reference RFP Part IV, Section 1.2, 1.3.3, & 1.4 for Annual Enrollment Proposal contents and submission requirements.
4. New Proposer must obtain Proposer, services and/or equipment qualification per Scenario 1 or 2.
5. Existing Vendors with new Equipment must obtain Equipment qualification per Scenario 1 or 2.
6. Newly qualified Equipment must obtain Equipment Certification per Scenario 1 or 2.
7. E-ZPass Group approves Vendor for qualified list.
8. E-Z Pass Members may establish a contract with any or all qualified Proposers to enable subsequent purchase of qualified Services or certified Equipment in accordance with the purchasing guidelines as established in this RFP, Part I and Part V.

2.22.4. Scenario 004 (Annual Enrollment) for the existing Equipment or Services, from an existing Vendor

Note: This is for subsequent enrollment periods after the initial contract award.

1. E-ZPass Group begins Opens Enrollment Period
2. Existing Vendor submits one of the following:
 - a. If the existing Vendor has had NO Mergers & Acquisitions (M&A) since the previous Annual Enrollment submission, then the Vendor must submit ONLY a Price Proposal (even if the price is unchanged), no Technical Proposal submission.
 - **Note:** Reference RFP Part IV, Section 1.2 & Section 1.4 for Annual Enrollment Price Proposal submission format and instructions.
 - b. If the existing Vendor has had Mergers & Acquisitions (M&A) since the previous Annual Enrollment submission, then the Vendor must submit both a Technical Proposal and Price Proposal (even if the price is unchanged).
 - **Note:** Reference RFP Part IV, Section 1.2, 1.3.1, & 1.4 for Annual Enrollment Proposal contents and submission requirements.
3. E-ZPass Group approves Vendor for qualified list and identifies acceptance of certification.
4. E-ZPass member agency may request Equipment or Services purchase from contract in accordance with the purchasing guidelines as established in this RFP Part I and Part V.

2.23. Proposal Evaluation

- a. Proposal Responsiveness – Proposals will be subject to an initial review to verify that

the submission is complete, that there are no concerns regarding Corporate Qualifications, and that there are no concerns regarding compliance with the Technical Requirements. At the discretion of the E-ZPass Group, clarifications may be requested per Part I: Administrative, Section 2.10 Written Clarifications. Proposers will be notified immediately if their Proposal fails initial review.

- b. Proposer Qualification – Proposals are subject to a thorough review and evaluation to determine if the Proposer, its equipment, and services are eligible for qualification, including but not limited to:

- Corporate Qualifications – response to Part IV: Proposal Contents and Submission Format, Section 3.1.5 Corporate Experience and Capability, including contents of the proposal, requested forms, and other requested material (e.g. financial statements).
- Technical Qualifications – response to Part III: Technical Requirements, including contents of the proposal, compliance table, and other material (e.g. product cut sheets) as Pass/Fail. The Proposer may be deemed non-responsive for any Requirements noted as “shall” that are not noted as compliant.
- Proposed Schedule – response to Part IV: Proposal Contents and Submission Format, Section 3.1.7 Schedule.
- Not to Exceed (Maximum) Price – For each proposed item (equipment and/or services), the maximum price is considered reasonable in accordance with industry and market pricing. Throughout the Term of the Contract, Price Quotations shall never exceed the Proposer’s initial not to exceed price.
 - **First Year Contract Pricing – for each proposed item**
- Contract Terms & Conditions – Agreement to execute a contract for supply of certified equipment and/or qualified services with each E-ZPass Group Member, including exceptions, if any.
- Subsequent Quotations – Agreement to submit price quotations as described in Section 6 Procurement Process Step 2: Quotation.

- c. Equipment Certification

(1) Qualified Transponders and Readers will be E-ZPass Group Certified based on successful submission/completion of the following:

- Environment – Documentation (e.g. third-party lab test results or other evidence of testing) that product meets the environmental criteria.
- Regulatory – Documentation (i.e. the license) that product has required licensing.
- Protocol – Documentation that product meets the protocol requirements:
 - For 6C, an OmniAir certification.
 - For TDM and SeGo, a statement from the Proposer as to how/what was done to confirm protocol compliance.

- For Multi-protocol, documentation as above applicable to each protocol included.
- Operation – Documentation that equipment meets the performance requirements in operation via successful validation test results. Validation Testing is required for each proposed Transponder protocol / model and for each proposed Reader. Transponders and Readers that have successfully completed E-ZPass Group Validation Testing previously will not require new validation testing.

Proposers will be notified of their status regarding Validation Testing and be given a timeline for submission of validation test results. The Proposer shall setup and conduct validation tests as defined in Part III: Technical Requirements, Sections 3.8 Transponder Certification and 4.9 Reader Certification. All Proposer costs related to Validation Testing (including, but not limited to setup, conducting, reporting, dismantling, and insurance) are the Proposer's responsibility.

The E-ZPass Group will allow Equipment that has completed all aspects of Certification except Validation Testing to proceed through the procurement process, however full Certification will be required before Purchase Orders can be placed.

- (2) Qualified Transponder Support Devices will be E-ZPass Certified based on successful submission/completion of the following:
 - Regulatory - Documentation (i.e. the license) that product has required licensing.
 - Operation – A statement from the Proposer as to how/what was done to confirm operational capability.
 - These Proposers/Vendors will be eligible to participate in Step 2 of the Procurement Process, Annual Price Quotation.
- d. Results – The E-ZPass Group will publish a list of Qualified Proposers/ Vendors, along with the Certified Equipment and/or Qualified Services specific to each Vendor.

2.24. Additional Information

The E-ZPass Group reserves the right to require the Proposer and its principals to submit such additional evidence of its qualifications and responsibility as the E-ZPass Group deems necessary, and shall consider any evidence available to them of the Proposer's integrity, including prior history of defaults and debarments, the record of performance of the Proposer on other contracts, the Proposer's record with respect to integrity and business ethics, whether the Proposer is barred from an award of any contract under applicable law, a Proposer's criminal violations background and any other factor deemed relevant. Said request for additional evidence or information shall not be deemed as an extension or reopening of the procurement process nor as an opportunity for other Proposers to submit additional evidence or information, or to alter or amend previously submitted evidence or information.

3. Execution of Contract

3.1. Notice of Award

Following the E-ZPass Group Evaluation Process, the qualified Proposers will be provided a Notice of Award. After execution of the first contract, the Notice of Award will include the Effective Date. The notification will specify the Proposer's Equipment that have been certified and the Proposer's Services that have been qualified. Unsuccessful Proposers will be notified of the evaluation outcome for their Proposal.

3.2. Notice to Proceed and E-ZPass Group Member Contract Execution

Following Notice of Award, each E-ZPass Group Member may then proceed to execute a contract, utilizing the attached Member Terms and Conditions, for possible supply of certified equipment and/or services with each qualified Vendor, if desired. The maximum term of any contract entered pursuant to this RFP is seven years from the Effective Date and up to an additional three years for any authorized renewals and/or extensions. The E-Z Pass Group Member will issue a Notice to Proceed in accordance with Part V: Terms & Conditions, Article 2.01 Agreement Term. Alternatively, a Member may wish to defer contract execution until it has plans to proceed with a Purchase Order with a Vendor; provided however, no such contract shall exceed the maximum term provided herein.

Proposers are directed to Part V: Terms & Conditions, Appendix A - E-ZPass Group Members Terms & Conditions, for details including the Bonding and Insurance Requirements specific to each E-ZPass Group Member.

3.3. Quotation and Purchase Orders

The E-ZPass Group provides this information so that Proposers will understand the process that will occur subsequent to award of a contract to qualified Vendors.

3.3.1. Submittal of Price Quotations

a. Equipment (Transponders, Transponder Support Devices, and Readers) – Annual

The E-ZPass Group will announce the date and time for Vendors enrollment period. One month prior to the annual date and time defined for Vendors to submit price quotations during the Open Enrollment Period, the E-ZPass Group shall provide a non-binding estimate of the quantities anticipated to be purchased during the next 12-month period. The estimate for transponders will be broken down by protocol combination, color and model. Vendors will not have a guarantee of exclusivity or quantity purchased.

On or before the start of the Open Enrollment Period, each Vendor shall submit a firm, binding 12-month price quotation for each of its certified products, regardless of quantity estimated by the E-ZPass Group. Pricing shall not exceed the maximum prices submitted with the RFP.

At each Vendor's option, the submitted pricing may include tiered pricing for Transponders representing price reductions based on the cumulative number of Transponders ordered during the 12-month period by all E-ZPass Group Members. Price reductions shall provide discounts to the base price once cumulative volume tiers are reached for each equipment item. If used, the submission format shall be as follows (Item refers to a specific Transponder protocol combination and model):

Item 1 Pricing	
Tier	Pricing (Transponders)
1 to X Transponders	\$ Base Price
(X+1) to Y Transponders	\$ Base Price – \$ Discount1
(Y+1) to Z Transponders	\$ Base Price – \$ Discount2
Etc.	Etc.

- i. All purchases of the designated item will initially be at the base price.
- ii. For each equipment item, the total discount due shall be allocated across all Members that purchased the item as follows:

$$\frac{(\text{Total cumulative discount due for that transponder item})}{(\text{Total quantity ordered across all Members})} \times (\text{Total quantity ordered by that Member})$$

- iii. During each 12-month period, the Vendor shall provide monthly reports identifying cumulative E-ZPass Transponder orders, total discount due with breakout by tier, and allocation of discount to each applicable Member for each Transponder product.
- iv. At the end of each twelve-month period, the Vendor shall provide a final report identifying cumulative E-ZPass Transponder orders, total discount due with breakout by tier, and allocation of discount to each applicable Member for each transponder product.
- v. Within 2 months of the end of each 12-month period, the Vendor shall provide the appropriate discount to each Member according to the option selected by each Member.

The Vendor shall provide at least the following options for selection by each Member:

- Credit on subsequent invoice.
- Payment to the Member equivalent to the value of that Member's discount.
- Delivery of additional equipment items equivalent to the value of that Member's discount.

Following are three example scenarios of Price Tiers

Assumed Vendor Price Quotation submittal:

Quotation Price	Delivery	Tier 1 Threshold (Optional)	Tier 1 Discount (Optional)	Tier 2 Threshold (Optional)	Tier 2 Discount (Optional)	Tier 3 Threshold (Optional)	Tier 3 Discount (Optional)
<i>Enter Unit Price</i>	<i>Enter # of weeks for delivery</i>	<i>Enter Quantity</i>	<i>Enter Unit Discount</i>	<i>Enter Quantity</i>	<i>Enter Unit Discount</i>	<i>Enter Quantity</i>	<i>Enter Unit Discount</i>
\$4.00		10,000	\$0.10	50,000	\$0.15		

Scenario 1: Total orders less than Tier 1 threshold. No discount applied.

Member	Order	Price	Payment from Member to Vendor	Discount Returned from Vendor to Member
1	1,000	\$4.00	\$4,000.00	\$0.00
2	2,000	\$4.00	\$8,000.00	\$0.00
3	1,000	\$4.00	\$4,000.00	\$0.00
4	2,000	\$4.00	\$8,000.00	\$0.00
5	1,000	\$4.00	\$4,000.00	\$0.00
Total	7,000		\$28,000.00	\$0.00

Scenario 2: Total orders greater than Tier 1, but less than Tier 2 thresholds. Tier 1 discount returned to Members proportional to order quantity.

Member	Order	Price	Payment from Member to Vendor	Discount Returned from Vendor to Member
1	5,000	\$4.00	\$20,000.00	\$229.73
2	4,000	\$4.00	\$16,000.00	\$183.78
3	3,500	\$4.00	\$14,000.00	\$160.81
4	4,500	\$4.00	\$18,000.00	\$206.76
5	1,500	\$4.00	\$6,000.00	\$68.92
Total	18,500		\$74,000.00	\$850.00
Base	10,000			
Tier 1	8,500	\$0.10		\$850.00

Scenario 3: Total orders greater than Tier 2 threshold. Tier 1 and Tier 2 discounts returned to Members proportional to order quantity.

Member	Order	Price	Payment from Member to Vendor	Discount Returned from Vendor to Member
1	10,000	\$4.00	\$40,000.00	\$1,033.33
2	25,000	\$4.00	\$100,000.00	\$2,583.33
3	5,000	\$4.00	\$20,000.00	\$516.67
4	15,000	\$4.00	\$60,000.00	\$1,550.00
5	20,000	\$4.00	\$80,000.00	\$2,066.67
Total	75,000		\$300,000.00	\$7,750.00
Base	10,000			
Tier 1	40,000	\$0.10		\$4,000.00
Tier 2	25,000	\$0.15		\$3,750.00
				\$7,750.00

b. Services (New Reader Maintenance and Support, Legacy Reader Maintenance and Support) – One-Time

The E-ZPass Group will announce the date and time for Vendors to submit price quotations.

On or before the initial price quotation submittal date and time, each Vendor shall submit a firm, binding price quotation for each of its qualified services that are not transponder related. Pricing shall be valid for the duration of the contracts resulting from this procurement and shall not exceed the maximum prices submitted and agreed to at the time of certification.

3.3.2. Opening of Price Quotations

The E-ZPass Group will open the price quotations at the specified date/time and will share pricing information with all E-ZPass Group Members. There will be no negotiation on the price quotations.

Any Vendor that does not meet the established date/time for the:

- Initial or subsequent annual equipment pricing submission will not be eligible to provide equipment for that twelve-month period of the Contract.
- Initial services pricing submission will not be eligible to provide services for the period of the Contract.

Newly qualified Vendors will be permitted to submit a price quotation for certified equipment at the next annual submittal date and time.

A “Price Match Guarantee” clause will be in effect such that if a Vendor offers an equivalent product or service to a toll operator outside of this E-ZPass Group Contract at a better price than that currently in effect for E-ZPass, the lower price will be subsequently in effect for E-ZPass. (See Part V: Terms & Conditions, Article 1.12 Price Match Guarantee)

3.3.3. Purchase Orders

Individual E-ZPass Members that have entered into a Contract with the Vendor may then issue Purchase Orders for certified equipment and/or services to the Vendor that offers the Member the best value for its specific deployment, based on the price quotation and any other pertinent criteria.

Individual E-ZPass Members may set the term and volume for Purchase Orders directly with a Vendor which may be for a period greater than one year. Vendor pricing shall not increase over the purchase order, regardless of the Member selected term.

3.4. Annual / Open Enrollment

The E-ZPass Group will allow new or modified services or equipment to be submitted by qualified Vendors and new Proposers to submit services and equipment and services subsequent to award of this contract. New Proposers, new equipment, modified equipment and/or new services must be qualified by submission of a Proposal and new or modified equipment must be certified as described in Part III.

3.4.1. Frequency

The E-ZPass Group will announce the date and time for Open Enrollment. The Open Enrollment period will be for the month of September and close at 2:00pm EST on the last business day of September. A Proposal must be submitted for existing Equipment each calendar year with an update to the price even if the price has not changed from the previous year.

3.4.2. Vendor Options

During the Open Enrollment period, existing Vendors may add or delete equipment and services as needed. New Vendors wanting to participate in the RFP for E-ZPass Equipment and Services must submit a Proposal during this time period.

3.4.3. New Vendor Requirements

New Vendors will be required to meet all criteria and specifications and become qualified as established in the awarded RFP for E-ZPass Equipment and Services.

3.4.4. Vendor Certification

All Equipment must be certified by existing or potential New Vendors prior to the Open Enrollment period.

3.5. Protest Procedure

Each Proposer, by submitting its Proposal, expressly recognizes the limitation on its rights to protest contained herein, expressly waives all other rights and remedies, and agrees that the decision on any protest, as provided herein, shall be final and conclusive. These provisions are included in these RFP documents expressly in consideration for such waiver and agreement by the Proposers. If a Proposer disregards, disputes, or does not follow the exclusive protest remedies set forth in these RFP documents, it shall indemnify, defend, and hold E-ZPass Group and all E-ZPass Group Members, and their respective Board members, directors, officials, employees, agents, representative, and consultants, harmless from and against all liabilities, expenses, costs, fees, and damages incurred or suffered as a result of such Proposer actions. The submission of a Proposal shall be deemed the Proposer's irrevocable and unconditional agreement with such indemnification obligation.

1. Any request for a protest meeting shall be in writing and filed with the NCTA Executive Director (acting on behalf of the E-ZPass Group Members) at the address specified below and shall be received within thirty (30) consecutive Calendar Days from the date of the Contract award. Any protest not set forth in writing, including oral objections, is not a protest and shall be null and void.

NCTA Executive Director, 1578 Mail Service Center, Raleigh, NC 27699-1578

2. All protests shall include the following: 1) name and address of protestor; 2) RFP title and solicitation number and date of issuance; 3) reasons for protest; and 4) supporting exhibits, evidence, or documents to support the protest.

3. If the protest does not contain this information or if the NCTA Executive Director determines that a meeting would serve no purpose, the NCTA Executive Director may, within ten (10) consecutive Calendar Days from the date of receipt of the letter, respond in writing to the Proposer and refuse the protest meeting request.
4. If the protest meeting is granted, the NCTA Executive Director will attempt to schedule the meeting within thirty (30) consecutive Calendar Days after receipt of the letter, or as soon as possible thereafter. Within ten (10) consecutive Calendar Days from the date of the protest meeting, the NCTA Executive Director will respond to the Proposer in writing with the decision.

All Proposals shall be irrevocable until final administrative and judicial disposition of a protest.

Part II

Defined Terms and Acronyms

Part II: Defined Terms and Acronyms

1. Defined Terms

Term	Definition
6C Protocol	The ISO/IEC 18000-63 standard, commonly known as 6C.
“6C Transponder” Transponders	Transponders that use ISO-18000 6C technology and may come in different form factors as outlined in the Technical Requirements.
Acceptance	Formal Approval of a Phase or Deliverable as further set forth in the Terms and Conditions.
Addenda	Written changes to the RFP documents issued by NCTA during the RFP process.
Agreement	The written Contract between an E-ZPass Group Member and the Vendor covering technical requirements and the other Contract Documents attached to the Agreement and made a part thereof. Also referred to as “Contract”.
Agreement Date	The date on which this Agreement commences.
Agreement Term	The duration of the initial Agreement is seven years from the Effective Date and up to an additional three years for any authorized renewals and/or extensions. Also referred to as “Contract Term”.
Amendment	Change in the Agreement executed in writing made by adding, altering, or omitting a certain part or term.
Antenna	Part of AVI equipment. This device is connected to AVI Reader to identify Transponders that cross the Capture Zone.
Approve	The term “Approve” and its variations (e.g., “Approval” or “Approved”), when capitalized in this Agreement refer to Acceptance of a process, vendor, document, condition, action or Deliverable in writing by the E-ZPass Group. Approval by the E-ZPass Group shall not be construed to mean endorsement or assumption of liability by the E-ZPass Group nor shall it relieve the Vendor of its responsibilities under the Agreement.

Term	Definition
Automatic Vehicle Classification (AVC)	A system of integrated devices and components that perform the automatic recording and reporting of vehicle characteristics such as number of axles, vehicle length / height / width, etc.
Automatic Vehicle Identification (AVI)	A system of integrated devices and components that perform the automatic recording and reporting of vehicle transactions through electronic media in a toll revenue collection system.
Automatic Vehicle Identification (AVI) Protocols	Communication standards for transmission of Transponder data. Also referred to as "Protocols".
Authorized Officer	The words "Authorized Officer" with respect to the Member, to mean the person or persons so designated in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise designated in a Notice to the Vendor, as the individual(s) authorized to bind the Member on all matters in this Agreement, except as expressly provided otherwise in this Agreement; and with respect to the IAG, to mean the person or persons designated by resolution of the IAG Executive Committee certified by the Chair of such Committee as the person authorized to communicate formal approval by the parties to the IAG Agreements for one or more purposes of this Agreement.
AVI Reader	Part of AVI equipment. This device processes Transponder data as Transponders pass through the Capture Zone.
Business Day	A weekday, excluding E-ZPass Group Member observed holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.
Business Hours	The words "Business Hours" to mean the normal hours of operation specific to an E-ZPass Group Member (excluding an E-ZPass Group Member's observed holidays) as set forth in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise set forth in a Notice to the Vendor.
Calendar Day	Every day, including weekends and holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 p.m.
Capture Compatibility	Capture Compatible transponders are any transponders which can communicate with the Reader but which may not have all data fields required by the E-ZPass Group. Transponders issued by the E-ZPass Group Members are, by default, Capture-Compatible transponders.

Term	Definition
Capture Zone	A volumetric space within which the system performs Transponder communications.
Certification	The Contractor's written verification and validation, with full supporting Documentation (including test results where applicable) that the Contractor has completed development of the Deliverable and certified its readiness for Approval, testing or review, as applicable.
Change Order	The words "Change Order" to mean changes resulting in additions or deletions to the Technical Requirements as directed by the Member in accordance with Part V, Terms and Conditions.
Compliance Table	Table of technical requirements noting Proposer compliance or non-compliance with each requirement.
Conformed Technical Requirements	The updated Technical Requirements as agreed-to between the E-ZPass Group and the Vendor, including executed addenda generated during the RFP process.
Contract	See "Agreement".
Contract Documents	The documents forming the Contract including RFP, Conformed Technical Requirements, Addenda, exhibits and appendices thereto, Amendments, Contract modifications, Vendor Proposal and all provisions required by law to be inserted in the Contract, whether actually inserted or not.
Contract Term	See "Agreement Term".
Contract Date	The date as of which this Agreement is executed by the Procuring Member Agency.
Vendor Certification	The Vendor's written verification and validation, with full supporting Documentation (including test results where applicable) that the Vendor has completed development of the Deliverable and certified its readiness for Approval, testing or review, as applicable.
Day(s)	Calendar Days, unless otherwise specified.
Dedicated Lane	A dedicated lane is a lane where only one form of payment is accepted such as a lane where only transponder-equipped

Term	Definition
	vehicles can pass without triggering a violation enforcement system. A dedicated lane may be gated to control violations.
Deliverable(s)	All Documentation and any items of any nature submitted by the Vendor to the E-ZPass Group for review and Approval pursuant to the terms of this Agreement. See "Submittal".
Discount Pricing	Proposer option to include for transponder pricing. Proposer to note discounting approach including price reductions, thresholds, triggers, etc.
Documentation	Materials, Submittals and Deliverables that provide official information or evidence that serves as a record in accordance with Scope, Requirements and the Agreement.
Effective Date	The initial date the E-ZPass Group executes an Agreement with any approved Vendor which shall be deemed the Effective Date for any subsequent Agreements entered by any E-ZPass Group Member and any approved Vendor.
Equipment	See "Hardware".
Express Lane	Express lanes are dedicated Transponder lanes which permit higher speeds than toll lanes and may have some lane delineation and equipment installed around the lane.
E-ZPass	The registered trademark owned by the Port Authority of New York and New Jersey that is used by member toll agencies to represent their interoperable electronic toll collection program.
E-ZPass Group	The collection of tolling entities that utilize a common AVI technology and operate Interoperable, reciprocal customer service centers in support of E-ZPass. Also known as the E-ZPass Interagency Group or IAG.
E-ZPass Group Approval	The words "E-ZPass Group Approval" to mean a resolution of the IAG Executive Committee certified by an Authorized Officer of the IAG, or such other approval mechanism as shall be identified in such a resolution. The words "as approved by the E-ZPass Group" or "approved by the E-ZPass Group" shall have this same meaning.

Term	Definition
E-ZPass Group Member	Toll operator that is a member of the E-ZPass Interagency Group; also referred to as Member.
E-ZPass Interagency Group	See E-ZPass Group
E-ZPass-on-the-Go	A convenient package that contains a prepaid tag ready for use that is sold at convenient locations such as participating local convenience stores, rest areas, DMV's, or simply ordering online.
E-ZPass Plus	A program enabling paying for parking at participating airports and garages using a Transponder.
First Contract Date	The date as of which the first E-ZPass Group Member has executed an Agreement with a Vendor.
Force Majeure	The circumstances as defined in this Agreement whereby either party is excused from meeting a Performance Requirement specified in this Agreement.
Gated Lane	Gated lanes are lanes in a toll plaza where a gate is used to prevent passage of vehicles until the lane/zone controller provides confirmation that a valid Transponder, cash or credit transaction has occurred.
Handheld Reader	Performs functions of AVI reader but with a handheld form-factor.
Hardware	"Hardware" is an all-inclusive term to mean the Equipment, Hardware, associated peripherals, software, associated firmware, electrical and other materials and supplies necessary or furnished by the Contractor pursuant to the Contract Documents.
High Occupancy Toll (HOT) Lane	HOT lanes are limited-access highway lanes that provide free or reduced cost access to qualifying High Occupancy Vehicles (HOVs), and provide access to other paying vehicles not meeting passenger occupancy requirements. HOT Lanes may or may not be barrier-separated from the non-HOT Lanes.
High Occupancy Vehicle (HOV) Switchable Transponder	Transponder equipped with a button or switch which allows the user to declare the HOV status of their vehicle.
High Speed Lane	High speed lanes are lanes where the vehicle may pass through the toll collection site at or near highway speeds. These may be present in open road tolling and toll plaza sites.
Interior Switchable Transponder	See HOV Switchable Transponder.

Term	Definition
Interagency Group	See E-ZPass Group.
Interoperable (Interoperability)	A relationship between tolling agencies or entities where their systems are capable of capturing and transmitting transactions generated on an agency's roads by customers of the other agency or entity. Generally requires that reciprocity agreements between agencies and entities are in place to govern payments and reconciliation.
Lane Controller	All hardware and software necessary to interface with the Reader to receive the transponder-stored data.
Lane Straddling	Vehicles crossing through a Capture Zone with part of vehicle in more than one defined traveling lane or shoulder.
Low Speed Lane	Low speed lanes are lanes where the vehicle must slow down well below highway speeds while passing through the toll collection site. These are typically found in toll plazas to enhance safety.
Maintenance	Services performed by the Contractor pursuant to Technical Requirements. May also be referred to as "Maintenance Services or Maintenance and Software Support Services."
Maintenance Support Services	The Maintenance and related Services required to be furnished by the Contractor, pursuant to the Contract Documents.
Mergers & Acquisitions (M&A)	Process of combining companies through various types of transactions.
Mixed Mode Lane	A mixed mode lane is a lane where multiple forms of payment are accepted. For example, it could consist of any combination of manual toll collection, Automatic Coin machines as well as Transponder.
NCDOT	The North Carolina Department of Transportation.
NCTA	The North Carolina Turnpike Authority.
NCTA Designated Representatives	Person or persons authorized by the NCTA to represent NCTA in all dealings with the Contractor.
New Product(s)	Introduction of new Equipment or Services.
North Carolina Turnpike Authority (NCTA)	The business unit of the North Carolina NCTA of Transportation responsible for this procurement.
Notice	A formal communication addressing legal and contractual matters, not applicable to daily Implementation and operation and Maintenance communications.
Notice of Award (NOA)	The written authorization by the E-ZPass Group specifying the Vendor's Equipment and/or Services which are certified by the E-ZPass Group and eligible for purchase by the Members.

Term	Definition
Notice to Proceed (NTP)	The written authorization by the E-ZPass Group Member designating the date and time for the Vendor to commence Work.
OmniAir Certification Services	An association of independent testing agencies and laboratories which develops and executes certification programs for Intelligent Transportation (ITS) industry standards.
Open Road Tolling (ORT) Lane	An open road tolling lane is a lane where a toll is collected but there are no toll booths or other toll collection equipment beyond that needed for electronic toll collection, allowing the vehicle to continue at highway speeds at any lateral position across the provided lanes or shoulder. An entry open road tolling lane in a closed system is a lane where the entry into the system is identified but there are no toll booths or other toll collection equipment beyond that needed for electronic toll collection, allowing the vehicle to continue at highway speeds at any lateral position across the provided lanes or shoulder.
Order of Precedence	The order in which Agreement documents control in the event of a conflict or ambiguity in such documents.
Original Equipment Manufacturer (OEM)	A company that manufactures a part or subsystem that is used in another company's end product.
Performance Requirements	The required level of performance standards for this Agreement as set forth in the Terms and Conditions and Technical Requirements.
Plan(s)	Vendor Deliverable that identifies approach to a particular aspect of the Work submitted for Approval.
Price Proposal	Proposer pricing provided in response to this RFP and in accordance with the instructions provided herein. Vendor's Approved Price Proposal is included as a Contract Document.
Priority	Ranking and assignment of importance used in the identification, monitoring, correction and reporting of System problems, bugs, and failures in accordance with Part III, Technical Requirements.
Product Certification Test	Testing required to certify Equipment meets all E-ZPass Group standards.

Term	Definition
Project Schedule	The detailed schedule developed and maintained by the Vendor that lists all tasks associated with Scope. The schedule is subject to Approval by the E-ZPass Group Upon Approval it becomes the Approved Baseline Project Schedule pursuant to the Agreement.
Proposal	Proposer's entire Proposal in response to this RFP, including the Proposers Technical Proposal and Proposer Price Proposal.
Proposer	A firm that has submitted a Proposal in response to this RFP.
Read / Write	Functionality that allows AVI Readers to transmit data to a Transponder and allows the Transponders to receive and store or act upon that data.
Reader	Synonymous with AVI Reader.
Retail Packaging	Retail Packaging consists of a sealed, RF shielded pouch/bag which prevents transponders from being read. Vendor must get approval for design and implementation of Retail Packaging from applicable E-ZPass Group Member prior to production of first order for each E-ZPass Group Member.
Requirements	Each of the required Work activities in numbered form as set forth in Part III: Technical Requirements.
Reversible Lane	A reversible lane is a lane where tolls may be collected from vehicles traveling in either direction during different periods of the day.
SeGo Protocol	The Super eGo protocol as specified by TransCore
SeGo Transponder	Transponder that uses SeGo protocol and technology and may come in different form factors as outlined in the Technical Requirements
Services	All Vendor activities required by this Agreement which the Vendor is required to provide at no extra cost to the Member pursuant to this Agreement, and those optional services the Vendor is required to provide to the extent ordered at the sole discretion of the Member. Also referred to as "Work".

Term	Definition
Software	Software and computer programs used in connection with the Equipment and Services, including software and firmware embedded in Equipment; any commands or protocols that regulate and control the operation of the data processing system; all documentation and media required for use of computer programs; all procedures and rules; all compilers, library routines, and circuit diagrams, as well as any modifications, updates, revisions, releases, new versions, adaptations or improvements of or to any of the foregoing, as are required to be provided hereunder to meet the requirements set forth in the Technical Requirements.
Subcontractor	Any person, firm or corporation, other than the Vendor's employees, who contracts to furnish labor, or labor and materials, at the Site(s) or in connection with the Services, whether directly or indirectly, on the Vendor's behalf and whether or not in privity with the Vendor. Also referred to as "Subconsultant".
Submittal	See "Deliverable".
TDM Protocol	The E-ZPass Time Division Multiplexing protocol as specified by Kapsch.
TDM Transponder	Transponder that uses TDM protocol and technology and may come in different form factors as outlined in the Technical Requirements.
Technical Proposal	Proposer Technical document provided in response to this RFP and in accordance with the instructions provided herein. Vendor's Approved Technical Proposal is included as a Contract Document.
Technical Requirements	The words "Technical Requirements" to mean all elements and activities required by this Agreement, as set forth in Part III, Technical Requirements.
Time Division Multiplexing (TDM)	In context of this RFP, refers to the current Protocols by E-ZPass compatible Transponders and Readers as specified by Kapsch.
Toll Zone	A single Tolling Location covering one direction of traffic.
Traditional Toll Plaza Lane	A traditional toll lane is part of a toll plaza where tolls may be collected by toll collectors in booths, automatic coin

Term	Definition
	machines, and/or electronically. Lanes dedicated to electronic toll collection in a toll plaza environment are considered toll lanes even if they do not require the vehicle to slow down. An entry lane in a closed system is part of a toll plaza where the entry into the system is identified.
Transponder	Vehicle-mounted radio frequency device read by the AVI Antenna(s) and reader Equipment in a toll lane.
Transponder Capture	The Reader's successful completion of a transaction with a transponder where a transaction is a successful "read" and "write" (where applicable). A successful 'read' is achieved when the Transponder Protocol is able to correctly determine the fixed identification data (e.g. read only fields) as well as the variable data associated with a vehicle that may have been set by a prior lane/zone controller and Reader (write fields). A successful 'read' and 'write' are achieved when the variable data fields are demonstrated to have been correctly updated so that they are available to Readers at other tolling points.
Transponder Capture Zone	See "Capture Zone"
Transponder Programmer	A device which is capable of programming the programmable data fields in a Transponder.
Transponder Reporting Zone	The geometric location in the Toll Zone where the Reader reports Transponder Capture to the Lane/Zone Controller.
Transponder Tester	A device used to test for proper functioning of a Transponder.
Updates	Generally, refers to a patch released for existing Software to fix any identified bugs, errors or security issues; may also include providing support for new Hardware, as well as performance tuning.
Upgrade	Generally, refers to transforming existing Software to a new version; provides new features and functionalities rather than fixing existing bugs, errors or security issues but does not include significant new functionality.
Vendor	The person, firm, corporation or entity undertaking the execution of the Work with whom the E-ZPass Group has entered into an Agreement.
Vendor Party	See "Vendor".

Term	Definition
Work	See "Services".
Write	The ability of the Reader to transmit and store new or modified data to/on a transponder for later access or further modification.
Zone Controller	See "Lane Controller".

2. Acronyms

Acronym	Meaning
ACK	Acknowledgement Message or Files
AET	All-Electronic Tolling
AVI	Automatic Vehicle Identification
BAFO	Best and Final Offer
BOM	Bill of Materials
CSC	Customer Service Center
DMV	Department of Motor Vehicles
EMI	Electromagnetic Interference
ETC	Electronic Toll Collection
FAT	Factory Acceptance Test
FCC	Federal Communications Commission
FOB	Free On Board (shipping to be FOB continental U.S.)
GPS	Global Positioning System
HOT	High Occupancy Toll
HOV	High Occupancy Vehicle
HTTPS	Hypertext Transfer Protocol Secure
IAG	E-ZPass Interagency Group
ISO	International Standards Organization
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LLC	Limited Liability Company
M&A	Mergers & Acquisitions
NCDOT	North Carolina Department of Transportation

Acronym	Meaning
NCTA	North Carolina Turnpike Authority
NTP	Notice to Proceed
OCS	OmniAir Certification Services
ORT	Open Road Tolling
PDF	Portable Document Format
RF	Radio Frequency
RFID	Radio Frequency Identification
RFP	Request for Proposal
RMA	Return Merchandise Authorization
RTCS	Roadside Toll Collection System
RTM	Requirements Traceability Matrix
SOV	Single Occupancy Vehicle
T&C	Terms and Conditions
TDM	Time Division Multiplexing
TOC	Toll Operators Coalition
UPC	Universal Product Code
USB	Universal Serial Bus
USDOT	United States Department of Transportation
USPS	United States Postal Service

Part III

Technical Requirements

Part III: Technical Requirements

1. Introduction

1.1. Background

These Technical Requirements are for the procurement of the following items:

- Transponders using TDM, SeGo, and/or 6C protocols and transponder support devices (Section 3);
- Multi-Protocol Readers supporting TDM, SeGo, and 6C protocols (Section 4);
- New Reader Support Services (Section 5);
- New Reader Annual Maintenance Services (Section 6); and
- Legacy Reader Support Services (Section 7).

The intention of the E-ZPass Group Members is to invite and encourage the proposal of a variety of Transponders and Multi-Protocol Readers that meet E-ZPass Group Members' needs. Multiple Multi-Protocol Readers and multiple Transponders with the same attributes from different Proposers may be certified through the process defined in this RFP. E-ZPass Group Members may then select from these models based on price, specific functionality offered, ease of integration into their tolling environment, or other factors at their discretion.

Proposers shall address all requirements applicable to the products offered that are specified in these Technical Requirements and explain clearly how each requirement is met or explain in detail why the requirement is not relevant to the products being proposed.

2. Operational Environment

2.1. Operational Modes

Transponders and Readers will operate in numerous operational modes and environments. These operational modes include various combinations of the following attributes:

- Payment models
 - Entry or Exit payment only;
 - Closed payment based on entry and exit locations;
 - HOV/HOT facilities;
 - Congestion zone payment.
- Toll collection sites
 - Toll plazas;
 - Open road tolling sites;
 - City street tolling sites;
 - Parking lot and garages.
- Lane toll collection configurations

- Transponder only;
 - Transponder with cameras;
 - Transponder with self-serve payment machine(s) (coin, cash, credit card, and/or “Digital Data” such as QR codes, Apple or Google Pay, smartphone apps, and Bluetooth);
 - Transponder with staffed booth;
 - Transponder with self-serve payment machine(s) and staffed booth.
- Lane speeds
 - High speed;
 - Low speed;
 - Stopped, no gate;
 - Stopped and gated;
 - Moderate speed gated where gate typically maintained in up position;
 - Low speed, no gate.
- Traffic flow characteristics
 - Free flow;
 - Bumper to bumper;
 - Tailgating;
 - Stop and go;
 - Backing up;
 - Lane straddling;
 - Extended stop, such as at a traffic light for congestion zone tolling sites.

2.2. Lane Types

Transponders and Readers will operate in conventional toll plaza lanes as well as high-speed open road tolling lanes. These lane types may be stand-alone configurations or adjacent to other lane types. Lanes in traditional plazas and city street tolling sites may vary from 10 to 15 feet in width and up to 20 feet in height to the antenna. Open Road Tolling Lanes may vary from 11 to 12 feet in width and up to 20 feet in height to the antenna.

- Open Road Tolling Lanes

An open road tolling lane is a lane where a toll is collected but there are no toll booths or other toll collection equipment beyond that needed for electronic toll collection, allowing the vehicle to continue at highway speeds at any lateral position across the provided lanes or shoulder. An entry open road tolling lane in a closed system is a lane where the entry into the system is identified but there are no toll booths or other toll collection equipment beyond that needed for electronic toll collection, allowing the vehicle to continue at highway speeds at any lateral position across the provided lanes or shoulder.
- Traditional Toll Plaza Lanes

A traditional toll lane is part of a toll plaza where tolls may be collected by toll collectors in booths, self-serve payment machines, and/or electronically via transponder identification and license plate image tolling. Lanes dedicated to electronic toll collection in a toll plaza environment are considered toll lanes even if they do not require the vehicle to slow down. An entry lane in a closed system is part of a toll plaza where the entry into the system is identified.

- Reversible Lanes

A reversible lane is a lane where tolls may be collected from vehicles traveling in either direction during different periods of the day.

- Express Lanes

Express lanes are dedicated Transponder lanes which permit higher speeds than toll lanes and may have some lane delineation and equipment installed around the lane.

- High Speed Lanes

High speed lanes are lanes where the vehicle may pass through the toll collection site at or near highway speeds. These may be present in open road tolling and toll plaza sites.

- Low Speed Lanes

Low speed lanes are lanes where the vehicle must slow down well below highway speeds while passing through the toll collection site. These are typically found in toll plazas to enhance safety.

- Gated Lanes

Gated lanes are lanes in a toll plaza where a gate is used to prevent passage of vehicles until the lane/zone controller provides confirmation that a valid Transponder, cash or credit transaction has occurred.

- Dedicated Lanes

A dedicated lane is a lane where only one form of payment is accepted such as a lane where only transponder-equipped vehicles can pass without triggering a violation enforcement system. A dedicated lane may be gated to control violations.

- Mixed Mode Lanes

A mixed mode lane is a lane where multiple forms of payment are accepted. For example, it could consist of any combination of manual toll collection, Automatic Coin machines as well as Transponder.

- High Occupancy Toll (HOT) Lanes

HOT lanes are limited-access highway lanes that provide free or reduced cost access to qualifying High Occupancy Vehicles (HOVs), and provide access to other paying vehicles not meeting passenger occupancy requirements. HOT Lanes may or may not be barrier-separated from the non-HOT Lanes.

- City Street Lanes

City Street Lanes are normal street lanes in a city environment. Tolling sites may be used with these lanes for congestion zone tolling. There may be vehicles stopped for

extended periods in the toll zones, such as for stop lights and street congestion. Pedestrians may also walk through or adjacent to the toll zones.

- **Parking Lots and Garages**

Tolling sites may be used at parking lots and garages as a form of payment for parking fees. They may consist of any of the above Lane Type elements although the typical installation has low speed mixed mode and/or dedicated lanes in a toll plaza environment.

2.3. Acceptable Technology

This RFP is seeking Transponders with various attributes using one or more of the following protocols and Multi-Protocol Readers that support all three protocols:

- **TDM** – The E-ZPass Time Division Multiplexing protocol as specified by Kapsch;
- **SeGo** – The Super eGo protocol as specified by TransCore; and
- **6C** – The ISO/IEC 18000-63 standard.

2.4. Additional Uses

Proposed Transponders and Multi-Protocol Readers shall be capable of being used for other applications beyond electronic toll collection. These applications may be operated by E-ZPass Group Members or by independent organizations or businesses as approved by the E-ZPass Group in accordance with Article 1.04, Vendor Obligations with Respect to Other Parties, in Part V. The Proposer shall describe the capabilities of using its Transponders or Multi-Protocol Readers for these other applications. The Transponders and Multi-Protocol Readers shall be capable of supporting, at a minimum:

- **Parking** – E-ZPass Group Members may desire the ability for customers to use their E-ZPass account for payment of parking fees; and
- **Traffic Management** – E-ZPass Group Members may require the ability to monitor traffic conditions by reading the transponders of passing vehicles.

The E-ZPass Group Members make no representation as to their involvement in the development and pursuit of other applications beyond toll collection. Toll collection functionality as specified herein shall not be compromised to support other applications.

3. Transponders

The Transponder Technical Requirements are divided into the following sections:

- **Transponder Attributes** – This section defines various desired transponder attributes and associated requirements.
- **Common Transponder Requirements** – These requirements apply to all Transponders.
- **TDM Transponders** – Requirements that apply to all Transponders that support the TDM protocol.
- **SeGo Transponders** – Requirements that apply to all Transponders that support the SeGo protocol.

- **6C Transponders** – Requirements that apply to all Transponders that support the 6C protocol.
- **Multi-Protocol Transponders** – Requirements that apply to all Transponders that support more than one of the following protocols: TDM, SeGo, and 6C.
- **Transponder Support Devices and Services** – Requirements for the support devices (Handheld Readers, Transponder Programmers, and Transponder Testers) and related training.
- **Transponder Certification** – The tests that must be completed for a proposed Transponder after Proposal Evaluation in order to receive E-ZPass Group Certification for purchase. Transponders already approved for E-ZPass Group purchase may not require those portions of Certification that have already been successfully completed, subject to E-ZPass Group approval.

For each Transponder proposed in the response to this RFP, the Proposer shall provide details on how it meets 1) requirements for all Transponder Attributes that apply to the Transponder, 2) all Common Transponder Requirements, and 3) requirements for the Transponder's supported protocol(s).

Proposers of Multi-Protocol Transponders shall also provide details specific to multi-protocol transponder requirements in addition to satisfying the single-protocol transponder requirements for the Transponder's supported protocols.

Proposers are encouraged to offer Transponders with features and functionality not specifically defined by this RFP. Proposers shall describe the benefits of such Transponders and indicate any non-compliance with the RFP Technical Requirements.

3.1. Transponder Attributes

Proposers shall define the different Transponders that they are proposing in terms of the following attributes which define models that E-ZPass Members anticipate using. However, models that provide different or new features may also be proposed for consideration by the E-ZPass Group.

Each attribute option has associated requirements as listed in the following sections that the Proposer's Transponder must meet in order to be considered for Certification.

The attributes used to describe Transponders on the pricing sheet include:

- **Protocols** – The communications protocol used to transfer data with the Reader. A Transponder shall support at least one protocol. Protocol Requirements are detailed in separate sections from the rest of the Attributes as they include more detailed functional, performance, security, and certification requirements.
- **Form Factor** – The physical form of the Transponder. Transponders for mounting on the interior of a vehicle windshield, either permanent or portable between vehicles, are anticipated. When the characteristics of a vehicle windshield or cab design restrict performance of an interior transponder, an exterior mounted Transponder is anticipated (with options for mounting on roof, bumper, and license plate). A version for use with motorcycles is also anticipated.
- The E-ZPass Group has found that mounting location affects performance. Therefore, similar Transponders in varying mounting location form factors will require separate Certification.

- Power Type – The source of power for Transponder communications and functionality which may be from an internal battery and/or radio frequency energy. A Transponder may have one Power Type or both Power Types if, for example, radio frequency energy provides the power for Transponder-Reader communications and an internal battery provides power for visual and/or audio feedback. Power type also defines if a battery is permanent or manufacturer replaceable (customer replaceable battery is not permitted).
- Functionality – A Transponder may have none, one, or more than one of the following functions. The Proposer may also propose a Transponder with additional functionality not described here. These are all assumed to be only provided in an Interior Portable form factor, so for brevity, references to Transponders with a specific functionality may omit the “Portable”. For example, “Interior Feedback Transponder” rather than “Interior Portable Feedback Transponder”.
 - Switchable - The Interior Transponder has a switch for the customer to indicate the current occupancy of the vehicle, which may provide eligibility for reduced or free tolls on a facility that supports this function.
 - Feedback – The Interior Transponder provides a visual and audio feedback upon successful interaction with a Reader when passing through the Transponder Capture Zone.
 - Waterproof – The Interior Transponder is certified as IP66 or better by an independent test lab. This Transponder is intended for use in vehicles whose interior is pressure washed.

Transponders may be referred to by a specific attribute. In such cases, the reference is to all Transponders that include that attribute, regardless of its other attributes. For example, a requirement for an Interior Portable Transponder applies to Interior Portable Transponders using any protocol, whether or not a battery is used, and whether or not it includes switchable or feedback functions. Similarly, a “TDM Transponder” requirement applies to all Transponders that support the TDM protocol, whether interior or exterior, which additional functionality they support, and if they support other protocols in addition to the TDM protocol.

3.1.1. Form Factor

The Proposer shall provide details on how each proposed Transponder meets the Requirements that are applicable to the Transponder’s Form Factor.

3.1.1.1. Interior Portable

#	Requirement Text
1.	The Interior Portable Transponder shall be a windshield mounted RFID Transponder that is incorporated within a plastic case.
2.	The Interior Portable Transponder shall be new, not refurbished.
3.	a. Interior Portable Transponders shall be as small as possible, such that they can be mounted to the windshield behind the rear-view mirror.
	b. The Proposer shall provide the dimensions and weight for each proposed Transponder.

4.	a. All components used in the Interior Portable Transponder shall be approved for safe use in consumer products.
	b. The Interior Portable Transponder shall not give off dangerous substances at any time including when damaged.
5.	Proposer shall provide the appropriate adhesive material and/or devices to allow the Interior Portable Transponder to be affixed to the windshield of a vehicle in accordance with the Transponder manufacturer's mounting instructions. Note: One (1) set of mounting components shall be included with each Interior Portable Transponder. Additional sets of mounting components shall be available for purchase.
6.	The Interior Portable Transponder shall be able to be detached from vehicle windshield and reattached back to the vehicle windshield without the use of any tools.
7.	a. The attachment method shall allow removal without risk of damage to the Interior Portable Transponder or vehicle.
	b. Any strips, tabs, cups or other mounting device used to meet these Requirements shall be completely removable without damaging or marring the vehicle in any way.
8.	a. Interior Portable Transponders shall be held stationary in their location by means sufficient to provide reliable attachment.
	b. The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
	c. The Proposer is required to provide their Portable Transponders with their standard mounting and also with an option that is compatible with the legacy E-ZPass transponders in terms of attachment spacing and attachment material, with clear acrylic tape with interlocking mushroom-shaped fasteners with 250 stem density per square inch, providing strong, reliable and durable fastening that can be opened and closed multiple times.
9.	The attachment method shall ensure that the integrity of the mounting is maintained for the life of the Transponder under the full range of environmental conditions.
10.	The Interior Portable Transponder shall be marked to clearly indicate the proper mounting orientation of the Interior Portable Transponder upon installation or reinstallation.
11.	When properly mounted, Interior Portable Transponders shall not obstruct the driver's field of vision.

12.	If an interior mounting location other than behind the rear-view mirror is proposed, Proposer shall clearly describe the new location and impacts on the driver's field of vision. Notes: - Mounting location shall not violate any state or province DMV regulations and shall not conflict with vehicle registration or inspection decals which are typically on the lower left or right corner of the windshield. - Transponder shall be visible from outside the vehicle.
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3.1.1.2. *Exterior Hard-Case Plate Mount*

#	Requirement Text
13.	The Exterior Hard-Case Plate Mount Transponder shall be a RFID Transponder that is incorporated within a plastic case.
14.	The Exterior Hard-Case Plate Mount Transponder shall be new, not refurbished.
15.	The Exterior Hard-Case Plate Mount Transponder shall be for installation above or below the license plate. The Proposer shall provide the dimensions and weight for each proposed Transponder.
16.	a. All components used in the Exterior Hard-Case Plate Mount Transponder shall be approved for safe use in consumer products. b. The Exterior Hard-Case Plate Mount Transponder shall not give off dangerous substances at any time including when damaged.
17.	a. Proposer shall describe the recommended exterior license plate attachment method. b. If mounting components in addition to the Transponder case are required, they shall not be included in the Transponder price, but shall be available for purchase. c. The attachment method shall only require the use of common tools.
18.	The attachment methods shall allow for removal of the Transponder from the mounting attachment using common tools without risk of damage to the Exterior Hard-Case Plate Mount Transponder or vehicle.
19.	The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
20.	The attachment method shall ensure that the integrity of the mounting is maintained for the life of the Transponder under the full range of environmental conditions.
21.	The Exterior Hard-Case Plate Mount Transponder shall be marked to clearly indicate the proper mounting orientation of the Exterior Hard-Case Plate Mount Transponder upon installation or reinstallation.

22.	a. Proposer shall clearly describe the desired license plate mounting locations. Mounting locations shall not violate any state or province DMV regulations.
	b. When properly mounted, Exterior Hard-Case Plate Mount Transponders shall not obscure the license plate numbering (numbers and letters), issuing jurisdiction information, or vehicle registration and inspection decals.
23.	a. The Exterior Hard-Case Plate Mount Transponder may be a physical device designed for use in multiple exterior mounting locations by using different mounting components or a physical device specific to the plate mount location.
	b. The Proposer shall describe the acceptable mounting locations and orientations relative to the vehicle, roadway, and Reader antennas for its Transponder(s) that will meet performance requirements.
24.	a. The Exterior Hard-Case Plate Mount Transponder shall support a data parameter that is programmed to encode the mounting location.
	b. The Proposer shall describe if this parameter is currently defined or may be defined based on available data fields, and if the parameter would be programmed at the factory or by the E-ZPass Group Member.
25.	a. Exterior Hard-Case Plate Mount Transponders and mounting techniques shall be designed to discourage theft.
	b. To do so, Exterior Hard-Case Plate Mount Transponders should be as inconspicuous as possible when installed on a motor vehicle.
	c. Transponders shall also be secure and not be easily removable from the vehicle without the use of common tools.
26.	The Exterior Hard-Case Plate Mount Transponder shall withstand rain, ice, snow, steam, dirt, mud, and any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.

3.1.1.3. *Exterior Hard-Case Roof Mount*

#	Requirement Text
27.	The Exterior Hard-Case Roof Mount Transponder shall be a RFID Transponder that is incorporated within a plastic case.
28.	The Exterior Hard-Case Roof Mount Transponder shall be new, not refurbished.
29.	a. The Exterior Hard-Case Roof Mount Transponder shall be for installation on surfaces outside of the passenger compartment of motor vehicles, typically to the vehicle roof.
	b. The Proposer shall provide the dimensions and weight for each proposed Transponder.

30.	a. All components used in the Exterior Hard-Case Roof Mount Transponder shall be approved for safe use in consumer products.
	b. The Exterior Hard-Case Roof Mount Transponder shall not give off dangerous substances at any time including when damaged.
31.	a. Proposer shall describe the recommended exterior roof mount attachment method.
	b. If mounting components in addition to the Transponder case are required, they shall not be included in the Transponder price, but shall be available for purchase separately.
	c. The attachment method shall only require the use of common tools.
32.	The attachment methods shall allow for removal of the Transponder from the mounting attachment using common tools without risk of damage to the Exterior Hard-Case Roof Mount Transponder or vehicle.
33.	The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
34.	The attachment method shall ensure that the integrity of the mounting is maintained for the life of the Transponder under the full range of environmental conditions.
35.	The Exterior Hard-Case Roof Mount Transponder shall be marked to clearly indicate the proper mounting orientation of the Exterior Hard-Case Roof Mount Transponder upon installation or reinstallation.
36.	Proposer shall clearly describe the desired exterior roof mounting locations. Mounting locations shall not violate any state or province DMV regulations.
37.	a. The Exterior Hard-Case Roof Mount Transponder may be a physical device designed for use in multiple exterior mounting locations by using different mounting components or a physical device specific to the roof mount location.
	b. The Proposer shall describe the acceptable mounting locations and orientations relative to the vehicle, roadway, and Reader antennas for its Transponder(s) that will meet performance requirements.
38.	a. The Exterior Hard-Case Roof Mount Transponder shall support a data parameter that is programmed to encode the mounting location.
	b. The Proposer shall describe if this parameter is currently defined or may be defined based on available data fields, and if the parameter would be programmed at the factory or by the E-ZPass Group Member
39.	a. Exterior Hard-Case Roof Mount Transponders and mounting techniques shall be designed to discourage theft.

	b. To do so, Exterior Hard-Case Roof Mount Transponders should be as inconspicuous as possible when installed on a motor vehicle.
	c. Transponders shall also be secure and not be easily removable from the vehicle without the use of common tools.
40.	The Exterior Hard-Case Roof Mount Transponder shall withstand rain, ice, snow, steam, dirt, mud, and any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.

3.1.1.4. *Exterior Hard-Case Bumper Mount*

#	Requirement Text
41.	The Exterior Hard-Case Bumper Mount Transponder shall be a RFID Transponder that is incorporated within a plastic case.
42.	The Exterior Hard-Case Bumper Mount Transponder shall be new, not refurbished.
43.	a. The Exterior Hard-Case Bumper Mount Transponder shall be for installation on surfaces outside of the passenger compartment of motor vehicles, typically on or below the vehicle bumper.
	b. The Proposer shall provide the dimensions and weight for each proposed Transponder.
44.	a. All components used in the Exterior Hard-Case Bumper Mount Transponder shall be approved for safe use in consumer products.
	b. The Exterior Hard-Case Bumper Mount Transponder shall not give off dangerous substances at any time including when damaged.
45.	a. Proposer shall describe the recommended exterior bumper attachment method.
	b. If mounting components in addition to the Transponder case are required, they shall not be included in the Transponder price, but shall be available for purchase separately.
	c. The attachment method shall only require the use of common tools.
46.	The attachment methods shall allow for removal of the Transponder from the mounting attachment using common tools without risk of damage to the Exterior Hard-Case Bumper Mount Transponder or vehicle.
47.	The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
48.	The attachment method shall ensure that the integrity of the mounting is maintained for the life of the Transponder under the full range of environmental conditions.

49.	The Exterior Hard-Case Bumper Mount Transponder shall be marked to clearly indicate the proper mounting orientation of the Exterior Hard-Case Bumper Mount Transponder upon installation or reinstallation.
50.	a. Proposer shall clearly describe the desired bumper mounting locations.
	b. Mounting locations shall not violate any state or province DMV regulations and shall not obscure any portion of the license plate.
51.	a. The Exterior Hard-Case Bumper Mount Transponder may be a physical device designed for use in multiple exterior mounting locations by using different mounting components or a physical device specific to the bumper mount location.
	b. The Proposer shall describe the acceptable mounting locations and orientations relative to the vehicle, roadway, and Reader antennas for its Transponder(s) that will meet performance requirements.
52.	a. The Exterior Hard-Case Bumper Mount Transponder shall support a data parameter that is programmed to encode the mounting location.
	b. The Proposer shall describe if this parameter is currently defined or may be defined based on available data fields, and if the parameter would be programmed at the factory or by the E-ZPass Group Member.
53.	a. Exterior Hard-Case Bumper Mount Transponders and mounting techniques shall be designed to discourage theft.
	b. To do so, Exterior Hard-Case Bumper Mount Transponders should be as inconspicuous as possible when installed on a motor vehicle.
	c. Transponders shall also be secure and not be easily removable from the vehicle without the use of common tools.
54.	The Exterior Hard-Case Bumper Mount Transponder shall withstand rain, ice, snow, steam, dirt, mud, and any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.

3.1.1.5. *Exterior Hard-Case Motorcycle Mount*

#	Requirement Text
55.	The Exterior Hard-Case Motorcycle Mount Transponder shall be a RFID Transponder that is incorporated within a plastic case.
56.	The Exterior Hard-Case Motorcycle Mount Transponder shall be new, not refurbished.
57.	a. The Exterior Hard-Case Motorcycle Mount Transponder shall be for installation on a motorcycle.

	b. The Proposer shall provide the dimensions and weight for each proposed Transponder.
58.	a. All components used in the Exterior Hard-Case Motorcycle Mount Transponder shall be approved for safe use in consumer products.
	b. The Exterior Hard-Case Motorcycle Mount Transponder shall not give off dangerous substances at any time including when damaged.
59.	a. Proposer shall describe the recommended motorcycle attachment method.
	b. If mounting components in addition to the Transponder case are required, they shall not be included in the Transponder price, but shall be available for purchase separately.
	c. The attachment method shall only require the use of common tools.
60.	The attachment methods shall allow for removal of the Transponder from the mounting attachment using common tools without risk of damage to the Exterior Hard-Case Motorcycle Mount Transponder or vehicle.
61.	The attachment methods shall be sufficient to prevent inadvertent displacement or projectile motion in case of rough road surfaces or accident.
62.	The attachment method shall ensure that the integrity of the mounting is maintained for the life of the Transponder under the full range of environmental conditions.
63.	The Exterior Hard-Case Motorcycle Mount Transponder shall be marked to clearly indicate the proper mounting orientation of the Exterior Hard-Case Motorcycle Mount Transponder upon installation or reinstallation.
64.	Proposer shall clearly describe the desired motorcycle mounting locations. Mounting locations shall not violate any state or province DMV regulations, obstruct the operator's view, or pose a safety hazard to the operator.
65.	a. The Exterior Hard-Case Motorcycle Mount Transponder may be a physical device designed for use in multiple exterior mounting locations by using different mounting components or a physical device specific to the motorcycle mount location.
	b. The Proposer shall describe the acceptable mounting locations and orientations relative to the vehicle, roadway, and Reader antennas for its Transponder(s) that will meet performance requirements.
66.	a. The Exterior Hard-Case Motorcycle Mount Transponder shall support a data parameter that is programmed to encode the mounting location.
	b. The Proposer shall describe if this parameter is currently defined or may be defined based on available data fields, and if the parameter would be programmed at the factory or by the E-ZPass Group Member.

67.	a. Exterior Hard-Case Motorcycle Mount Transponders and mounting techniques shall be designed to discourage theft.
	b. To do so, Exterior Hard-Case Motorcycle Mount Transponders should be as inconspicuous as possible when installed on a motor vehicle.
	c. Transponders shall also be secure and not be easily removable from the vehicle without the use of common tools.
68.	The Exterior Hard-Case Motorcycle Mount Transponder shall withstand rain, ice, snow, steam, dirt, mud, and any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.

3.1.1.6. *Interior Sticker*

#	Requirement Text
69.	Interior Sticker Transponders shall be sticker RFID Transponders that are powered by radio frequency energy and shall not require a battery.
70.	The Interior Sticker Transponder shall be a flexible self-adhesive sticker type for installation on the vehicle windshield.
71.	a. Interior Sticker Transponders shall be as small as possible, such that they can be mounted to the windshield behind the rear-view mirror.
	b. The Proposer shall provide the dimensions for each proposed Transponder.
72.	All components used in the Interior Sticker Transponder shall be approved for safe use in consumer products. The Interior Sticker Transponder shall not give off dangerous substances at any time including when damaged.
73.	The Interior Sticker Transponder shall be marked to clearly indicate the proper mounting orientation of the Interior Sticker Transponder upon installation.
74.	When properly mounted, Interior Sticker Transponders shall not obstruct the driver's field of vision.
75.	If an interior mounting location other than behind the rear-view mirror is proposed, Proposer shall clearly describe the new location and impacts on the driver's field of vision. Notes: • Mounting location shall not violate any state or province DMV regulations and shall not conflict with vehicle registration or inspection decals which are typically on the lower left or right corner of the windshield. • Transponder shall be visible from outside the vehicle.

76.	a. Interior Sticker Transponders will be exposed to direct sunlight, which has been known to cause issues with some Transponders failing to respond to AVI Reader requests and / or providing incorrect reads in some cases.
	b. Sunlight screening shall be built into the Interior Sticker Transponder to ensure it performs as well under conditions of direct sunlight as in overcast conditions.
77.	The Interior Sticker Transponder shall be designed such that once it is mounted to the windshield, any attempt to remove the Interior Sticker Transponder from its mounting location will result in it becoming permanently unusable.
78.	The Interior Sticker Transponder shall be designed in such a manner that attachment and removal will not cause damage to the surface to which it is attached.

3.1.1.7. *Exterior Sticker*

#	Requirement Text
79.	Exterior Sticker Transponders shall be sticker RFID Transponders that are powered by radio frequency energy and shall not require a battery.
80.	The Exterior Sticker Transponder shall be a flexible self-adhesive sticker.
81.	a. The Exterior Sticker Transponders shall be for installation on surfaces outside of the passenger compartment of motor vehicles, typically headlamps.
	b. The Proposer shall provide the dimensions for each proposed Transponder.
82.	a. All components used in the Exterior Sticker Transponder shall be approved for safe use in consumer products.
	b. The Exterior Sticker Transponder shall not give off dangerous substances at any time including when damaged.
83.	The Exterior Sticker Transponder shall be marked to clearly indicate the proper mounting orientation of the Exterior Sticker Transponder upon installation or reinstallation.
84.	For headlamp-mounted Exterior Sticker Transponders, the Proposer shall describe how the Transponder design minimizes any impedance on the headlamp's lighting performance.
85.	a. The Exterior Sticker Transponder may be a single physical device with a data parameter programmed to encode the mounting location or different physical devices for each mounting location with designs suitable for that location, such as a clear plastic used for mounting to a headlamp or a solid color used for mounting elsewhere on the vehicle.
	b. The Proposer shall describe the acceptable mounting locations for its Transponder(s) that will meet performance requirements.

86.	Exterior Sticker Transponders shall withstand rain, ice, snow, steam, dirt, mud, any solutions used in the lanes, as well as stones and other projectiles such as sand particles and gravel.
87.	a. Exterior Sticker Transponders will be exposed to direct sunlight, which has been known to cause issues with some Transponders failing to respond to AVI Reader requests and / or providing incorrect reads in some cases. b. Sunlight screening shall be built into the Exterior Sticker Transponder to ensure it performs as well under conditions of direct sunlight as in overcast conditions.
88.	The Exterior Sticker Transponder shall be designed such that once it is attached to the vehicle, any attempt to remove the Transponder from its mounting location will result in it becoming permanently unusable.
89.	The Exterior Sticker Transponder shall be designed in such a manner that attachment and removal will not cause damage to the surface to which it is attached.

3.1.2. Power Type

The Proposer shall provide details on how each proposed Transponder meets the Requirements that are applicable to the Transponder's Power Type(s).

3.1.2.1. Internal Battery

#	Requirement Text
90.	a. Internal Battery Transponders shall not have a customer or E-ZPass Group Member-replaceable battery. b. The Transponder design shall support either a manufacturer-replaceable battery or an integrated, irreplaceable battery.
91.	The Internal Battery Transponder shall not require any additional external power supply in order to meet the Performance Requirements described in these Requirements.
92.	If the Transponder has portions of its functionality powered by an internal battery and portions by radio frequency energy, the Proposer shall detail the functionality that is powered by the internal battery and the capabilities and performance of the Transponder upon depletion or failure of the internal battery.

3.1.2.2. Non-Battery

#	Requirement Text
93.	Non-Battery Transponders shall be powered by radio frequency energy emitted by the Reader Antenna.
94.	The Non-Battery Transponder shall not require any additional external power supply in order to meet the Performance Requirements described in these Requirements.

3.1.3. Functionality

The Proposer shall provide details on how each proposed Transponder meets the Requirements that are applicable to the Transponder's supported Functionality.

3.1.3.1. Switchable

#	Requirement Text
95.	The Switchable Transponder shall include a switch that allows the driver to select a supported status indication.
96.	The switch shall be operable while the Transponder is attached to the windshield.
97.	The Switchable Transponder shall support two statuses: low occupancy vehicle or high occupancy vehicle (HOV).
98.	The Proposer shall describe in its Proposal and on the pricing sheets if the switch status is written to the Switchable Transponder when passing through a Toll Zone and if this status is provided on the next read of the Transponder, regardless of any changes in switch position, such as may be used in conjunction with an HOV enforcement device.
99.	The Switchable Transponder shall display a visual indication of the present status setting, readable by the driver when the Transponder is properly mounted in the proposed mounting location.
100.	a. If powered by an internal battery, the Switchable Transponder shall emit a brief tone when its status is changed from Low to High Occupancy.
	b. The audible tone level should be 63 dBA minimum when measured at a distance of 10 cm from the top of the case in a direction perpendicular to the top of the case.

3.1.3.2. Feedback

#	Requirement Text
101.	a. The Feedback Transponder shall include audible and visual feedback triggered by a toll transaction to indicate the customer's account status as valid, low balance, or invalid.
	b. The audible feedback tone level should be 63 dBA minimum when measured at a distance of 10 cm from the top of the case in a direction perpendicular to the top of the case.
	c. The visual feedback shall support green, yellow, and red colors to indicate valid, low balance, or invalid account status, respectively.
	d. The visual feedback luminance of the visual output shall be 150 nits (candela/m ²) minimum for each color, measured in the direction perpendicular to the top of the case.

102.	The feedback shall be implemented in a manner that a color-blind customer can identify account status, such as physical spacing between each LEDs and/or different blink and beep patterns by the LEDs and audio feedback.
103.	The Proposer shall identify the general requirements needed by Readers and/or Lane/Zone Controllers to support this functionality.

3.1.3.3. *Waterproof*

#	Requirement Text
104.	The Waterproof Transponder shall be an interior transponder that may be used in vehicles whose interiors are pressure-washed, such as buses.
105.	a. The Waterproof Transponder shall have an IP66 rating or better. b. The Proposer shall submit certification from an independent testing lab that the Transponder was tested in accordance with IEC 60529 and met the requirements for the Transponder's rating.
106.	The Waterproof Transponder's method of mounting to the windshield shall be sufficient to prevent displacement from repeated pressure washing.

3.2. **Common Transponder Requirements**

The Proposer shall provide details on how each of its proposed Transponders meet the requirements of this section.

3.2.1. **Transponder Physical / Environmental**

3.2.1.1. *Operating Environment*

#	Requirement Text
107.	Transponders shall be designed to meet performance requirements applicable to the Transponder's supported protocol(s) under worst case traffic conditions including the following: a. Vehicles traveling up to 100 miles per hour; b. Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour; c. Vehicles tailgating; d. Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;

	e. Vehicles arriving simultaneously at the Transponder Capture Zone;
	f. Vehicles changing and/or straddling lanes within the Transponder Capture Zone; and
	g. Vehicles travelling through a toll plaza lane with overhead metal canopy, metal toll booths, lane separation and support structures.
108.	Transponders shall be designed to meet performance requirements applicable to the Transponder's supported protocol(s) under worst case environmental conditions that may be encountered in North America including but not limited to:
	a. Interior Transponder Operating Temperature ranging from -40° F to +185° F;
	b. Exterior Transponder Operating Temperature ranging from -40° F to +150° F;
	c. Storage Temperatures ranging from -40° F to +150° F;
	d. Rain: 1/4 inch of rain per minute;
	e. Fog: 10 feet visibility;
	f. Relative Humidity: 0% - 100%;
	g. Ice: 1/4-inch thickness between the Transponder and the Antenna;
	h. All forms of driving precipitation (sleet, hail, blizzard, etc.); and
	i. Direct sunlight.

3.2.1.2. *Electromagnetic Interference*

#	Requirement Text
109.	Transponders shall be resistant to electromagnetic interference or noise, electrical interference, and mechanical interference that may typically be found in a tolling environment from sources such as, but not limited to:
	a. Wireless data and voice Services such as 802.11 WiFi networks, Bluetooth communications, Near Field Communications (NFC), cellular telephone/data networks, and connected vehicle / V2X communications;
	b. Satellite radio signals;
	c. GPS devices;
	d. Vehicle electronics;
	e. Ignition systems;
	f. Electrical appliances;

	g. Lightning (except for direct hits);
	h. Power tools;
	i. Power lines;
	j. Power transformers;
	k. Mobile and portable communications radios;
	l. Video Enforcement and Automatic Vehicle Classification Equipment, including inductive loops and lasers;
	m. Toll plaza infrastructure such as overhead metal canopy, metal toll booths, lane separation and support structures;
	n. Security systems;
	o. Lighting;
	p. Speed radar sources and detectors;
	q. Air conditioning units;
	r. Windshield wipers;
	s. Detuned engines;
	t. Defrosters; and
	u. Anything else that would reasonably be found in a tolling environment.

3.2.1.3. *Other*

#	Requirement Text
110.	Transponders shall not have their performance affected by the nearby presence of common objects such as beverage cans, cell phones, sunglasses, cigarette packs, etc., by other electronic devices that may be integrated with or placed in the vehicle, e.g. commercial vehicle RF Transponders.
111.	a. Transponders shall be designed to prevent penetration of fluids, dust, etc., including automotive fluids, salt spray, and fuels, whether through the design of the Transponder case or the mounting of the Transponder.
	b. They shall be designed such that external conditions as listed above do not affect performance
	c. Interior Transponders that are not Switchable or Waterproof should be rated IP44 or better in accordance with IEC 60529.

	d. Switchable Transponders should be rated IP3X or better in accordance with IEC 60529.
	e. Exterior Transponders should be rated IP66 or better in accordance with IEC 60529.
112.	a. Transponders shall be droppable from 4 feet onto concrete in any orientation and continue to meet performance requirements applicable to the Transponder's supported protocol(s).
	b. The Transponder case for Interior Portable and Exterior Hard-Case Transponders shall not open as the result of being dropped.
	c. The E-ZPass Group prefers the ability to pass the "Transit Drop" test outlined in MIL-STD-810G, Method 516.6, Procedure IV as part of the First Article Test.
113.	Transponders shall withstand thermal shocks and gradients associated with dashboard or window mounting and temperature gradients of up to 20° F per minute.
114.	Transponders shall operate as specified while undergoing the recommended shock and vibration of SAE J1211 for the proposed mounting location.
115.	a. Transponders shall withstand any damage or corruption of data when subjected to an electrostatic discharge of up to 15,000 Volts (air discharge) or 8,000 Volts (contact discharge) attributable to normal handling by E-ZPass Group Member personnel or customers.
	b. Electrostatic discharge testing shall include at least ten (10) positive voltage and ten (10) negative voltage discharges on each surface of the transponder.
116.	Proposer shall describe the limits of flexing, bending, or any other physical manipulation of the Transponder without any effect on Transponder performance and accuracy.

3.2.2. Transponder Security

#	Requirement Text
117.	a. The Proposer shall describe measures implemented to protect the Transponder from being tampered with, read by unauthorized readers, cloned, or otherwise "spoofed" in each of the Transponder's supported protocols.
	b. The Proposer shall indicate if these measures require specific Reader or lane/zone controller functionality.
	c. The Transponder shall meet all performance and other Transponder requirements when used in toll environments that are not configured or are not capable of using these security measures.
118.	a. The E-ZPass Group Members prefer that any compromised Transponder be rendered inactive or that a coded signal be created that would identify a tampered Transponder to the Reader.

	b. For Multi-Protocol Transponders, this would ideally include the capability for a cross-protocol coded signal where, for example, if tampering were detected in one protocol's functionality, the coded signal would be sent in any of the protocols the Transponder used.
119.	a. Proposers shall describe all known incidents of successful or unsuccessful counterfeiting of their Transponders, including a description of the measures taken as a result.
	b. The Vendor shall have an ongoing obligation to provide Notice to the E-ZPass Group Members of any known incidents of counterfeiting during the term of this Agreement.

3.2.3. Regulatory Compliance

#	Requirement Text
120.	The proposed Transponders shall comply with applicable federal, province, state and local licensing and regulations for the technology in question.
121.	The Transponders shall utilize such FCC allocated radio frequencies as appropriate for this application.
122.	Transponders shall be authorized for use in accordance with the FCC's Part 15 requirements or as appropriate for the Transponder technology.
123.	a. Transponders shall meet or exceed all applicable safety and environmental requirements set by the health and telecommunications authorities of the United States.
	b. This includes FCC requirements for human exposure to radio frequency electromagnetic fields and the specific absorption rate (SAR) limits based on IEEE C95.1-1992.

3.2.4. Transponder Labeling and Color

#	Requirement Text
124.	a. Interior Portable and Exterior Hard-Case Transponders shall be provided with an external label printed using up to 4 colors and using the standard E-ZPass layout included in Attachment 3, as adapted for the Transponder's dimensions.
	b. The label shall contain human readable data that shall be visible when mounted on or inside a vehicle. The data shall include but not be limited to:
	i. Issuing E-ZPass Group Member number;
	ii. E-ZPass Group Member designated graphics and data such as the E-ZPass Group Member logo; and
	iii. E-ZPass Group Member designated mailing address and contact telephone number.

	c. The Proposer shall describe the total printable area of the label, the size of the required elements in the standard E-ZPass layout, and the size of the area(s) that may be customized when using the standard E-ZPass layout and data. Sample labeling is included in Attachment 3.
125.	a. In addition to any other branding required by the E-ZPass Group Member, Interior Portable and Exterior Hard-Case Transponders shall bear the "E-ZPass" logo. The "E-ZPass" logo may be embossed in the Transponder case or printed on the label. b. If printed, the "E-ZPass" logo shall be colored in Pantone 259 Purple. A sample "E-ZPass" logo is provided in Attachment 3.
126.	a. Interior and Exterior Sticker Transponders may be printed in up to 4 colors and using the standard E-ZPass layout included in Attachment 3, as adapted for the Transponder's dimensions. b. The Transponder shall contain human readable data that shall be visible when mounted on or inside a vehicle. The data may include but not be limited to: i. Issuing E-ZPass Group Member number; ii. "E-ZPass" logo colored in Pantone 259 Purple; iii. E-ZPass Group Member designated graphics and data such as the E-ZPass Group Member logo; and iv. E-ZPass Group Member designated mailing address and contact telephone number. c. The Proposer shall describe the total printable area of the Transponder, the size of the required elements in the standard E-ZPass layout, and the size of the area(s) that may be customized when using the standard E-ZPass layout and data. Sample labeling is included in Attachment 3.
127.	In addition to human readable data, the label for all Transponders shall also contain a barcode encoded with E-ZPass Group Member and other ID, such as an internal serial number, as designated by the E-ZPass Group Member.
128.	The Proposer shall describe the customizability of labels beyond the standard E-ZPass layout to include limitations on the colors that may be printed, space for additional logos, such as for special edition Transponders with local sport team logos, and the timeline for label production.
129.	Final graphic design of labels for all Transponders procured pursuant to this Contract will be approved by the E-ZPass Group Member specific to each order.
130.	Proposer shall provide specifications and restrictions for pigments and labels to be used on Transponders to ensure that pigments or labels will not interfere with Transponder operation and will not be significantly impacted by temperature or UV degradation for the life of the Transponder.

131.	a. Interior Portable Transponder cases (shells) shall be available in different colors for various application distinctions (e.g., passenger vehicle, truck, bus, non-revenue, commuter), with the mix of colors ordered at the discretion of the E-ZPass Group Member.
	b. The following colors shall be included in the range of options: white, blue, yellow, green, and orange.
132.	a. Interior Sticker Transponders shall be available in a clear transparent material and in a white color.
	b. The Proposer shall describe the ability to supply additional colors, whether using a different material for the Transponder or by printing a different color on a white Transponder.
133.	Exterior Hard-Case Transponder cases (shells) shall be black.
134.	a. Exterior Sticker Transponders shall be available in a clear transparent material for mounting on headlamps.
	b. The Proposer shall identify additional colors that Exterior Sticker Transponders may be ordered in at the standard price and at additional cost.
135.	Transponders shall not carry any visible manufacturer or vendor brand names.

3.2.5. Transponder Orders, Retail Packaging, and Delivery

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

Notes on Transponder Orders:

- Orders for Transponders will be submitted separately by each E-ZPass Group Member at such times as Transponders are desired.
- Each order will include: description and quantity of Transponders; Transponder ID range; a Purchase Order number; the delivery location; and the desired delivery date.
- E-ZPass Group Members will work with each other and the Vendor to mitigate large variations in month to month delivery requests. When feasible, large orders will be broken out for monthly deliveries ("level-loading").
- The historical quantities provided in Attachment 2: E-ZPass Group Members Historical Transponder Order Quantities are for information only. E-ZPass Group Members do not provide any guarantee of actual purchase quantity.

3.2.5.1. Retail Transponder Packaging

E-ZPass Group Members may order Interior Portable Transponders and Interior Sticker Transponders with Retail Packaging. Sample pictures are included in Attachment 3.

#	Requirement Text
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136.	The Proposer shall offer Retail Packaging in two formats:
	a. Retail Bag for Interior Portable and Interior Sticker Transponders; and b. Gift Card Hanger for Interior Sticker Transponders.
137.	The Retail Bag shall consist of a sealed, RF shielded pouch/bag which prevents Transponders from being read.
138.	a. The contents of the Retail Bag will be selected by the E-ZPass Group Member in coordination with the Vendor.
	b. The Retail Bag will typically contain:
	i. A single Interior Portable non-Switchable, Interior Switchable, or Interior Sticker Transponder.
	ii. A corresponding Transponder ID validation code label for TDM Transponders. 1. This label shall be produced and affixed to the reverse side of the Transponder.
	2. The Transponder ID validation code shall be a separate check code, different from the Transponder number that is entered by the customer or the CSR when registering to ensure that the correct Transponder number is entered.
	3. E-ZPass Group Members will provide the logic to be used for creation of the Transponder ID validation code when a contract is awarded.
	iii. Mounting accessories (if applicable).
	iv. Printed documentation, e.g. terms & conditions.
	v. Instructions for Transponder mounting/installation document.
	vi. Instructions for Transponder registration document.
139.	a. The exterior labeling of the Retail Bag will be designed by the Vendor under the guidance of the E-ZPass Group Member.
	b. The exterior labeling on the bag will typically include:
	i. E-ZPass and E-ZPass Group Member logos.
	ii. The Transponder manufacturing date.
	iii. A window positioned so that the Transponder identification is visible or printed Transponder identification.
	iv. An approved UPC code.

	v. Other graphics / text as defined by the E-ZPass Group Member.
140.	The Gift Card Hanger shall consist of an Interior Sticker Transponder in RF shielded packaging that is designed for placing on retail hangers.
141.	a. The exterior labeling of the Gift Card Hanger will be designed by the Vendor under the guidance of the E-ZPass Group Member.
	b. The exterior labeling on the Gift Card Hanger will typically include:
	i. E-ZPass and E-ZPass Group Member logos.
	ii. Website link for mounting instructions, account registration, and terms & conditions.
	iii. The Transponder manufacturing date.
	iv. A window positioned so that the Transponder identification is visible or printed Transponder identification.
	v. An approved UPC code.
142.	vi. Other graphics / text as defined by the E-ZPass Group Member.
	a. The Proposer shall describe the customization capability for the exterior labeling and for any printed documentation and instructions to be included in the Retail Packaging.
	b. This shall include size of printable areas for common bag sizes used for the offered Transponders, the number of colors for the materials, and key factors affecting the pricing of Retail Packaging.
143.	The Vendor shall provide a quote upon E-ZPass Group Member request prior to ordering Retail Packaging.
144.	Vendor must get approval for design and implementation of Retail Packaging from applicable E-ZPass Group Member prior to production of first order for that E-ZPass Group Member

3.2.5.2. Transponder Delivery

Vendor will provide delivery timing with its annual Price Proposal. Stated delivery time will not apply to delivery of the first order for each model of Transponder due to the requirement for Factory Testing (Part III: Technical Requirements, Section 3.25.5.3 Transponder Factory Testing). Expedited delivery may be requested by an E-ZPass Group Member. Vendor shall respond promptly (within 3 business days) to such a request indicating if the requested delivery is possible. The direct costs for expedited delivery will be the responsibility of the E-ZPass Group Member requesting the service.

#	Requirement Text
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145.	Transponders shall comply with any and all current U.S. and international safety standards to permit unrestricted shipment by mail and commercial carriers with appropriate documentation and in the recommended shipping boxes.
146.	a. Vendor shall ship Interior Portable and Exterior Hard-Case Transponders (with or without retail packaging) in boxes with dividers and placeholders. b. Interior Sticker and Exterior Sticker Transponders in rolls shall be shipped in boxes with suitable packing material. Interior Sticker Transponders in retail packaging shall be shipped in boxes with dividers and placeholders as appropriate.
147.	If mounting components are to be included with the Transponders, they shall be included in the shipping box with the Transponders.
148.	The shipping boxes shall have RF shielding to prevent reading of the enclosed Transponders.
149.	Each box of Transponders shall contain Transponders with consecutive serial numbers starting at a value determined jointly by the E-ZPass Group Member and the Vendor.
150.	Each box of Transponders shall have a barcode marked packing slip and exterior identification with the beginning and ending serial numbers for inventory tracking.
151.	When shipping Interior Sticker or Exterior Sticker Transponders, the Vendor shall provide an additional quantity of two-percent (2%) of the quantity ordered for each Transponder model at no additional cost.
152.	Vendor shall provide a spreadsheet of boxes and serial number ranges along with each shipment of Transponders.
153.	Vendor shall coordinate with the E-ZPass Group Member's designated CSC Contractor to develop the exact content and format of the spreadsheet.
154.	Delivery shall occur at the E-ZPass Group Member's specified location during business hours.
155.	a. The Vendor may deliver an order in multiple batches with the approval of the E-ZPass Group Member. b. Batch size and the serial numbers for each batch shall be subject to the approval of the E-ZPass Group Member. c. Each batch shall be otherwise subject to these requirements, to include delivery timelines and liquidated damages based on the order date.
156.	If Vendor fails to deliver Transponders in accordance within the agreed upon time period, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of Transponder overdue for each calendar day (Limit 100% of the retail value of Transponder Programmers overdue).

3.2.5.3. *Transponder Factory Testing*

This testing is subsequent and additional to the Transponder Certification process.

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

#	Requirement Text
157.	a. Vendor shall conduct First Article Factory Testing on Transponders from the production environment prior to delivery of the first order for each model of Transponder proposed.
	b. First Article Factory Testing shall demonstrate that production Transponders are physically and operationally consistent with the Transponders submitted for Validation Testing and these Technical Requirements.
	c. Vendor shall submit its First Article Factory Testing plan for approval by E-ZPass Group Members prior to conducting the test.
158.	Proposer shall provide a description of its ongoing Factory Testing process for Transponders, and a copy of a typical factory testing certification statement that would be provided.
159.	a. Vendor shall notify E-ZPass Group Members of any changes to the originally proposed Transponders during the Contract Term.
	b. Changes requiring notification shall include, but not be limited to, new or different components, different component values such as a change in resistance or capacitance, revised board layouts, and a new component supplier.
	c. E-ZPass Group Members may request that the new or revised product undergo all or a portion of Validation Testing and/or First Article Factory Testing.

3.2.6. **Transponder Delivery Testing**

The Proposer shall acknowledge this E-ZPass Group Member initiated activity.

#	Requirement Text
160.	a. For each Transponder order placed, a sample (either partial or full) of Transponders may be lab tested (at the E-ZPass Group Members' expense) to ensure that they remain operationally consistent with previously delivered Transponders and to ensure the Transponder programming is correct.
	b. Any batches failing testing shall be replaced at Vendor's expense at E-ZPass Group Member's sole discretion.
	c. Should a batch fail testing, the Vendor shall treat the notification of the testing results from the E-ZPass Group Member as a Notice to the Vendor of the potential existence of a Pervasive Defect and investigate in accordance with Article 7.06, Defects.

	d. A batch is considered as failed if there are more than one (1) Transponder error per two hundred (200) tested (0.5%). E-ZPass Group Members will provide the supporting test documentation.
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3.2.7. Transponder Disposal

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

#	Requirement Text
161.	If there are environmental restrictions on disposal of any model of supplied Transponder, Vendor shall document the proper disposal procedures and the reason for the restrictions.

3.2.8. Documentation

The Proposer shall provide an overview of how Proposer will meet the Requirements of these sections. Sample Documentation may be provided as an Appendix of the Proposal.

3.2.8.1. End User Instructions

#	Requirement Text
162.	Vendor shall provide instructions suitable for use by end users which document the means of attachment and mounting devices used by all supplied Transponders.
163.	Vendor shall provide a list of vehicle features, such as metallic coated windshields or rear-view mirrors with displays that may interfere with the operation of Interior Transponders.
164.	a. Vendor shall provide a list of vehicle makes and models equipped with features which may interfere with the operation of Interior Transponders.
	b. Where applicable, Vendor shall indicate alternate mounting locations or other special instructions which would prevent the interference in particular vehicle types.
165.	Vendor shall update the lists of vehicle features that may interfere with the operation of Interior Transponders, and the vehicle makes and models equipped with such features, on an annual basis.

3.2.8.2. Transponder Handling

#	Requirement Text
166.	Vendor shall provide instructions and Documentation regarding the storage, transport, issue, and disposal of all Transponders as applicable.

3.2.8.3. *Regulatory Compliance*

#	Requirement Text
167.	Vendor shall provide documentation stating that all provided Equipment and Transponders are in compliance with appropriate regulations and standards.

3.2.9. **Contract Management**

#	Requirement Text
168.	During the Contract Term, Vendor shall provide the E-ZPass Group Technology Manager with a monthly status report, broken out by E-ZPass Group Member, including as a minimum: a. Orders received; b. Deliveries made; c. Current backlog; d. Schedule for delivery of backlog; e. Returns (RMA) – quantity and reason; and f. Details regarding Price Tiers and related discounts, if applicable.

3.2.10. **Transponder Warranty**

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

#	Requirement Text
169.	a. Vendor shall provide replacement Interior Portable and Exterior Hard-Case Transponders (or at E-ZPass Group Member option, a credit at the price currently in effect for new purchase) for any Transponder not functioning for any reason for ten (10) years (except that for the Feedback Transponder and the Switchable Transponder the period shall be 7.5 years), with the ten (10) years (or 7.5 years in the case of the Feedback Transponder and the Switchable Transponder) beginning the date the Transponder is delivered to the E-ZPass Group Member's designated delivery location. b. The warranty period for the replacement Transponder shall be for the time remaining in the ten (10) year (or 7.5 year for the Feedback Transponder and the Switchable Transponder) warranty period for the replaced defective Transponder. Refer to Part V: Terms & Conditions, Article 7.0 Risk of Loss, Liability, Indemnification and Warranties.

170.	a. Vendor shall provide replacement Interior Sticker and Exterior Sticker Transponders (or at E-ZPass Group Member option, a credit at the price currently in effect for new purchase) for any Transponder not functioning for any reason for two (2) years, beginning the date the Transponder is delivered to the E-ZPass Group Member's designated delivery location.
	b. The warranty period for the replacement Transponder shall be for the time remaining in the two (2) year warranty period for the replaced defective Transponder. Refer to Part V: Terms & Conditions, Article 7.0 Risk of Loss, Liability, Indemnification and Warranties.
171.	In addition, the Switchable Transponder shall be warranted for a minimum of 7,500 switch transitions (four mode changes a day for 250 work days a year for 7.5 years). This shall include a warranty for the switch not physically breaking for those transitions and for the switch correctly changing the occupancy state for transactions with each transition.
172.	Transponder life expectancy shall be at least equivalent to the warranty period.
173.	For Internal Battery Transponders, Transponder battery life shall be at least equivalent to the warranty period.
174.	An E-ZPass Group Member may provide Notice to the Vendor of the potential existence of a Pervasive Defect and for the Vendor to investigate in accordance with Article 7.06, Defects, should at least ten percent (10.0%) of an order of Transponders fail within the warranty period.

3.3. TDM Transponders

The Proposer shall confirm that each of its proposed Transponders that support the TDM protocol meet the requirements of this section.

3.3.1. Typical TDM Transponders

#	Requirement Text
175.	The typical TDM Transponders include a), b), c), d), and e) as listed below. Additional TDM Transponders may be proposed by marking the applicable Transponder Attributes on the Pricing Sheet and completing the other proposal requirements.
	a. Interior Portable TDM Transponders;
	b. Interior Feedback TDM Transponders;
	c. Interior Switchable TDM Transponders;
	d. Interior Waterproof TDM Transponders; and

	e. Exterior Hard-Case TDM Transponders. Notes: The Exterior Hard-Case Transponders (item e) may be a single physical device with different mounting components and a data parameter programmed to encode the mounting location or separate physical devices for each mounting location.
176.	a. For each Transponder proposed, provide details to confirm that it meets the Requirements, including details of locations / agencies using the Transponder, and quantities in use.
	b. Provide product cut sheets as an Appendix of the Proposal.

3.3.2. Transponder Functional Requirements

#	Requirement Text
177.	Transponders shall be fully operational and compatible with E-ZPass Group-certified Readers that support the TDM protocol.
178.	Transponders shall implement full Read/Write functionality.
179.	The Transponders shall meet the requirements set out in the document: “Rev_C_Active_TDM_Over_Air_Spec_for_Electronic_Toll_Communications.pdf” (available from Kapsch® TrafficCom IVHS Inc. at https://tdm.kapschtraffic.com. Registration and license acceptance may be required by Kapsch® for access). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.

3.3.3. Transponder Performance Requirements

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

If available, provide actual performance data along with a description of how it was obtained. If a proposed Transponder exceeds the Requirements, confirm what level of performance Proposer will commit to.

Provide a description of any aspects of the proposed Transponders that are unique and/or provide additional value.

#	Requirement Text
180.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to read TDM Transponders shall be detected and read accurately at least 99.9% of the time, or no more than one (1) missed read or incorrect detect in one thousand (1,000) Transponder equipped vehicle passages.

	b. This shall apply whether the Toll Zone is operating solely in single protocol TDM mode or in multi-protocol mode to include TDM.
181.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to write to TDM Transponders, shall successfully and accurately store the written data with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) Transponder equipped vehicle passages. b. This shall apply whether the Toll Zone is operating solely in single protocol TDM mode or in multi-protocol mode to include TDM.
182.	a. Proposer shall define vehicle types for which these performance thresholds may not be achieved, regardless of Transponder model and/or mounting location. b. The E-ZPass Group reserves the right to determine if these exclusions are acceptable or if the requested vehicles are still subject to the performance requirements and may be used in Validation Testing.

3.4. SeGo Transponders

The Proposer shall confirm that each of its proposed Transponders that support the SeGo protocol meet the requirements of this section.

3.4.1. Typical SeGo Transponders

#	Requirement Text
183.	The typical SeGo Transponders include a), b), c), d), and e) as listed below. Additional SeGo Transponders may be proposed by marking the applicable Transponder Attributes on the Pricing Sheet and completing the other proposal requirements. a. Interior Portable SeGo Transponders; b. Interior Sticker SeGo Transponders; c. Interior Feedback SeGo Transponders; d. Interior Switchable SeGo Transponders; and e. Exterior Hard-Case SeGo Transponders. Notes: The Exterior Hard-Case Transponders (item e) may be a single physical device with different mounting components and a data parameter programmed to encode the mounting location or separate physical devices for each mounting location.
184.	For each Transponder proposed, provide details to confirm that it meets the Requirements, including details of locations / agencies using the Transponder, and quantities in use. Provide product cut sheets as an Appendix of the Proposal.

3.4.2. Transponder Functional Requirements

#	Requirement Text
185.	Transponders shall be fully operational and compatible with E-ZPass Group-certified Readers that support the SeGo protocol.
186.	Transponders shall implement full Read/Write functionality.
187.	The Transponders shall meet the requirements set out in the document: “SeGo-Protocol-Description.pdf”, Rev D, (available from TransCore® at https://transcore.com/sego-specs. Registration and license acceptance may be required by TransCore® for access). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.

3.4.3. Transponder Performance Requirements

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section. If available, provide actual performance data along with a description of how it was obtained. If a proposed Transponder exceeds the Requirements, confirm what level of performance Proposer will commit to.

Provide a description of any aspects of the proposed Transponders that are unique and/or provide additional value.

#	Requirement Text
188.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to read SeGo Transponders shall be detected and read accurately at least 99.9% of the time, or no more than one (1) missed read or incorrect detect in one thousand (1,000) Transponder equipped vehicle passages.
	b. This shall apply whether the Toll Zone is operating solely in single protocol SeGo mode or in multi-protocol mode to include SeGo.
189.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to write to SeGo Transponders, shall successfully and accurately store the written data with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) Transponder equipped vehicle passages.
	b. This shall apply whether the Toll Zone is operating solely in single protocol SeGo mode or in multi-protocol mode to include SeGo.
190.	a. Proposer shall define vehicle types for which these performance thresholds may not be achieved, regardless of Transponder model and/or mounting location.
	b. The E-ZPass Group reserves the right to determine if these exclusions are acceptable or if the requested vehicles are still subject to the performance requirements and may be used in Validation Testing.

3.5. 6C Transponders

The Proposer shall confirm that each of its proposed Transponders that support the 6C protocol meet the requirements of this section.

3.5.1. Typical 6C Transponders

#	Requirement Text
191.	The typical 6C Transponders include items a, b, and c, as listed below. Additional 6C Transponders may be proposed by marking the applicable Transponder Attributes on the Pricing Sheet and completing the other proposal requirements.
	a. Interior Sticker 6C Transponders;
	b. Interior Switchable 6C Transponders; and
	c. Exterior Sticker 6C Transponders. Notes: The Exterior Sticker Transponders (item c) may be a single physical device with a data parameter programmed to encode the mounting location or separate physical devices for each mounting location with designs suitable for that location, such as a clear plastic used for mounting to a headlamp or a solid color used for mounting elsewhere on the vehicle.
192.	a. For each Transponder proposed, provide details to confirm that it meets the Requirements, including details of locations / agencies using the Transponder, and quantities in use.
	b. Provide product cut sheets as an Appendix of the Proposal.

3.5.2. Transponder Functional Requirements

#	Requirement Text
193.	Transponders shall be fully operational and compatible with E-ZPass Group-certified Readers that support the 6C protocol.
194.	Transponders shall be compliant with most recent 6C Toll Operators Coalition (6C TOC) AVI Transponder Programming Standard at the time of Contract Award (available via download link found at http://6c-toc.com , "6C TOC AVI Standard Version 3.2" at the time this RFP was prepared). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.
195.	At E-ZPass Group Members' discretion and at no additional cost to E-ZPass Group Members, Vendor shall provide Transponders that are compliant with newer versions of the 6C TOC AVI Transponder Programming Standard over the life of the Contract.

3.5.3. Transponder Performance Requirements

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

If available, provide actual performance data along with a description of how it was obtained. If a proposed Transponder exceeds the Requirements, confirm what level of performance Proposer will commit to.

The Proposer shall provide a description of any aspects of the proposed Transponders that are unique and/or provide additional value.

#	Requirement Text
196.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to read 6C Transponders shall be detected and read accurately at least 99.9% of the time, or no more than one (1) missed read or incorrect detect in one thousand (1,000) Transponder equipped vehicle passages.
	b. This shall apply whether the Toll Zone is operating solely in single protocol 6C mode or in multi-protocol mode to include 6C.
197.	a. Transponders properly mounted on vehicles passing through a Toll Zone configured to write to 6C Transponders, shall successfully and accurately store the written data with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) Transponder equipped vehicle passages.
	b. This shall apply whether the Toll Zone is operating solely in single protocol 6C mode or in multi-protocol mode with 6C.
198.	a. Proposer shall define vehicle types for which these performance thresholds may not be achieved, regardless of Transponder model and/or mounting location.
	b. The E-ZPass Group reserves the right to determine if these exclusions are acceptable or if the requested vehicles are still subject to the performance requirements and may be used in Validation Testing.

3.6. Multi-Protocol Transponders

The Proposer shall confirm that each of its proposed Transponders that support at least two of the TDM, SeGo, and 6C protocols meet the requirements of this section.

3.6.1. Typical Multi-Protocol Transponders

#	Requirement Text
199.	The typical Multi-Protocol Transponder includes item a, as listed below. Additional Multi-Protocol Transponders may be proposed by marking the applicable Transponder Attributes on the Pricing Sheet and completing the other proposal requirements. a. Interior Portable Multi-Protocol (TDM, SeGo, 6C) Transponder Notes: Multi-Protocol Transponders that support different protocol combinations, such as one Transponder supporting TDM and 6C and another supporting SeGo and 6C, are considered different Transponders and shall be proposed separately.

200.	a. For each Transponder proposed, provide details to confirm that it meets the Requirements, including details of locations / agencies using the Transponder, and quantities in use.
	b. Provide product cut sheets as an Appendix of the Proposal.

3.6.2. Transponder Functional Requirements

#	Requirement Text
201.	Transponders shall support at least two (2) of the following protocols, which the Proposer shall identify in the Proposal for each of the offered models: TDM, SeGo, and 6C.
202.	Transponders shall meet all requirements for each supported protocol and shall be fully operational and compatible with E-ZPass-approved Readers in each of the protocols supported by both Reader and Transponder.
203.	When the Transponder is in the Transponder Capture Zone of a Reader communicating in more than one of the protocols supported by the Transponder, the Transponder shall respond to the Reader in each of the Transponder-supported protocols used by the Reader.
204.	Transponders should have dedicated data fields for each protocol such that programming or writing to a field in one protocol will not affect data used by another protocol.

3.6.3. Transponder Performance Requirements

The Proposer shall provide details on how the proposed Transponders meet the Requirements of this section.

If available, provide actual performance data along with a description of how it was obtained. If a proposed Transponder exceeds the Requirements, confirm what level of performance Proposer will commit to.

Provide a description of any aspects of the proposed Transponders that are unique and/or provide additional value.

#	Requirement Text
205.	Multi-Protocol Transponders properly mounted on vehicles passing through a Toll Zone configured for one or more protocols supported by the Transponder shall be detected and read accurately in each supported protocol to the same performance as required for a single protocol transponder for that protocol. For example, the passage of a Multi-protocol TDM and 6C Transponder through a TDM and 6C Toll Zone is expected to produce a read in the TDM protocol at the required accuracy rate for TDM Transponders and a read in the 6C protocol at the required accuracy rate for 6C Transponders.
206.	Multi-Protocol Transponders properly mounted on vehicles passing through a Toll Zone configured for one or more protocols supported by the Transponder shall successfully and accurately store the written data in each supported protocol to the same performance as required for a single protocol transponder for that protocol.

207.	Proposer shall define vehicle types for which these performance thresholds may not be achieved, regardless of Transponder model and/or mounting location. The E-ZPass Group reserves the right to determine if these exclusions are acceptable or if the requested vehicles are still subject to the performance requirements and may be used in Validation Testing.
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3.7. Transponder Support Devices and Services

Requirements for Handheld Readers, Transponder Programmers, and Transponder Testers are set out in the next three sections. Proposer may propose a device that combines the functionality of the Handheld Reader, Transponder Programmer, and/or Transponder Tester.

Vendor will provide delivery timing for these devices with its annual price quotations. Expedited delivery may be requested by an E-ZPass Group Member. Vendor shall respond promptly (within 3 business days) to such a request indicating if the requested delivery is possible. The direct costs for expedited delivery will be the responsibility of the E-ZPass Group Member requesting the service.

3.7.1. Handheld Reader

The Proposer shall offer a Handheld Reader that supports each protocol used by the proposed Transponders. This may be met with a Multi-Protocol Handheld Reader that can read all the protocols or single-protocol Handheld Readers for each of the protocols.

The Proposer shall provide an overview of Proposer's Handheld Reader and how it will meet the Requirements of this section. Discuss the Handheld Reader's ability to interface to other systems and any features particularly useful for using the Handheld Reader in mobile HOV enforcement. Include a description of Proposer's approach to upgrades and patches for the Handheld Reader. Provide any cut sheets as an Appendix of the Proposal.

#	Requirement Text
208.	The Handheld Reader shall be of ergonomic design and powered by a rechargeable battery.
209.	The Handheld Reader shall be able to be carried, moved and operated by one person.
210.	The Proposer shall identify the protocols supported by the Handheld Reader. The Handheld Reader shall be able to read all E-ZPass Group-approved Transponders that use the supported protocol(s).

211.	The Handheld Reader shall be equipped with a display which displays data for each Transponder read, including but not limited to:
	a. Date & Time of Transponder read;
	b. Transponder ID;
	c. Transponder encoded vehicle class;
	d. Previous Toll Zone and read/write date/time as written to the Transponder; and
	e. Position of HOV self-declaration switch as written to the Transponder at previous Toll Zone (if applicable).
212.	The Handheld Reader shall support an external interface allowing it to exchange all Transponder data with a desktop or laptop workstation (supplied by others).
213.	The Handheld Reader shall buffer (store) each Transponder read until uploaded to a computer or manually deleted by the handheld reader user.
214.	a. Vendor shall provide any Software for installation on desktop or laptop workstations required to support interfacing with the Handheld Reader.
	b. Workstation Software shall be compatible with the latest release of Microsoft Windows 10.
215.	If the Handheld Reader supports multiple protocols, the Proposer shall describe how the Handheld Reader handles the use of those protocols, to include the ability to select one or more protocols when using the Handheld Reader and display of the protocol(s) used to read a Transponder.
216.	For the Contract Term, and at no additional cost to E-ZPass Group Members, Vendor shall provide the following Software Maintenance Services as they pertain to the Handheld Reader:
	a. Updates to the Handheld Reader firmware;
	b. Updates to Software for use on connected workstation, to include updates to maintain compatibility with future updates to Microsoft Windows 10 and to address security issues that may be identified with the Software or Handheld Reader;
	c. Release Notes for firmware and Software; and
	d. Documentation Updates.
217.	Vendor shall provide documentation as defined in Part III: Technical Requirements, Section 3.7.4 Support Devices Documentation.
218.	Vendor shall provide operations and maintenance training to E-ZPass Group Members or their designated representatives as an optional extra (priced separately).
219.	Handheld Readers shall be certified for use in accordance with the FCC's Part 15 requirements.

220.	Handheld Readers shall meet or exceed all applicable safety and environmental requirements set by the health and telecommunications authorities of the United States, and these units shall be allowed for continuous use in an operational environment. This includes FCC requirements for human exposure to radio frequency electromagnetic fields and the specific absorption rate (SAR) limits based on IEEE C95.1-1992.
221.	If Vendor fails to deliver Handheld Readers in accordance within the agreed upon time period, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of Handheld Readers overdue for each calendar day (Limit 100% of the retail value of Handheld Readers overdue).
222.	Delivery shall occur at the E-ZPass Group Member's specified location during business hours.

3.7.2. Transponder Programmer

The Proposer shall offer a Transponder Programmer that supports each protocol with agency-programmable fields used by the proposed Transponders. This may be met with a Multi-Protocol Transponder Programmer that can program in all the applicable protocols or single-protocol Transponder Programmers for each or the applicable protocols.

The Proposer shall provide an overview of the Transponder Programmer and how it will meet the Requirements of this section. Include a description of Proposer's approach to Upgrades and patches for the Transponder Programmer. Provide any cut sheets as an Appendix of the Proposal.

#	Requirement Text
223.	The Transponder Programmer shall allow programming of all agency-programmable data fields in any E-ZPass Group-certified Transponder for the Transponder Programmer's supported protocols.
224.	a. Vendor shall provide any Software for installation on desktop or laptop workstations required to support interfacing with the Transponder Programmer. b. Workstation Software shall be compatible with the latest release of Microsoft Windows 10.
225.	If the Transponder Programmer supports multiple protocols, the Proposer shall describe how the Transponder Programmer handles the use of those protocols, to include the ability to select one or more protocols when programming a Transponder.
226.	For the Contract Term, and at no additional cost to E-ZPass Group Members, Vendor shall provide the following Software Maintenance Services as it pertains to the Transponder Programmer: a. Updates to the Transponder Programmer firmware; b. Updates to Software for use on connected workstation, to include updates to maintain compatibility with future updates to Microsoft Windows 10 and to address security issues that may be identified with the Software or Transponder Programmer; c. Release Notes for firmware and Software; and d. Documentation Updates.

227.	Vendor shall provide documentation as defined in Part III: Technical Requirements, Section 3.7.4 Support Devices Documentation.
228.	Vendor shall provide operations and maintenance training to E-ZPass Group Members or their designated representatives as an optional extra (priced separately).
229.	Transponder Programmers shall be certified for use in accordance with the FCC's Part 15 requirements.
230.	Transponder Programmers shall meet or exceed all applicable safety and environmental requirements set by the health and telecommunications authorities of the United States, and these units shall be allowed for continuous use in an operational environment. This includes FCC requirements for human exposure to radio frequency electromagnetic fields and the specific absorption rate (SAR) limits based on IEEE C95.1-1992.
231.	If Vendor fails to deliver Transponder Programmers in accordance within the agreed upon time period, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of Transponder Programmers overdue for each calendar day (Limit 100% of the retail value of Transponder Programmers overdue).
232.	Delivery shall occur at the E-ZPass Group Member's specified location during business hours.

3.7.3. Transponder Tester

The Proposer shall offer a Transponder Tester(s) for all proposed Transponders that supports each protocol used by the Transponders. It is preferable that a Single Transponder Tester be offered that can test all proposed Transponders in all supported protocols. However, device-specific and/or protocol-specific Testers may be offered as long as all Proposed Transponders can be tested in each of their supported protocols.

The Proposer shall provide a description of the Transponder Tester including its operating environment and primary functions, in particular the logic used to determine Transponder pass or fail. Include a description of Proposer's approach to upgrades and patches for the Transponder Tester. Provide any cut sheets as an Appendix of the Proposal.

#	Requirement Text
233.	The Transponder Tester shall be used by personnel in a field environment such as a toll plaza or an office environment such as a customer service center.
234.	The Proposer shall provide the size and weight of the Transponder Tester.
235.	a. Should the Transponder Tester require connection to a desktop or laptop workstation for operation, Vendor shall provide any Software for installation on desktop or laptop workstations required to support interfacing with the Transponder Tester.
	b. Workstation Software shall be compatible with the latest release of Microsoft Windows 10.

236.	a. The user interface should provide output for measurements as appropriate to the technology being offered, such as:
	i. The Transponder Tester successfully tested the functionality of all Transponder data fields;
	ii. The bit error rate;
	iii. The power output of the Transponder;
	iv. The sensitivity of the Transponder to the trigger signal; and
	v. Load test the Transponder.
	b. The output for the Transponder functionality test may be an audible indication, LED, or any other method to indicate whether the Transponder passed or failed. The output for bit error rate can be a simple LCD display.
	c. The output for the power and sensitivity tests should include a display of approximate power output or sensitivity level and a display of the power output and sensitivity in dBm.
237.	d. If Vendor requires that printed documentation accompany Transponder returns (RMA), then Tester shall include printer interface capability.
	a. The Transponder Tester shall consider a Transponder to have failed if any data field returns invalid data.
	b. With regard to power output or sensitivity measures, the Transponder Tester shall fail Transponders that would not meet accuracy requirements when properly mounted and presented.
	c. The Proposer shall describe the measurement levels that would result in the Transponder failing and the reasons for the selection of those measurement levels.
238.	d. The Proposer shall describe the positioning of the Transponder relative to the Transponder Tester such that the Transponder Tester result is valid.
	If the Transponder Tester supports multiple protocols, the Proposer shall describe how the Transponder Tester handles the use of those protocols, to include the ability to select one or more protocols for testing, test outputs provided for each protocol, and the display of the test results.
239.	For the Contract Term, and at no additional cost to E-ZPass Group Members, Vendor shall provide the following Software Maintenance Services as it pertains to the Transponder Tester:
	Updates to the Transponder Tester firmware;
	a. Updates to Software for use on connected workstation, to include updates to maintain compatibility with future updates to Microsoft Windows 10 and to address security issues that may be identified with the Software or Transponder Tester;

	b. Release Notes for firmware and Software; and
	c. Documentation Updates.
240.	Vendor shall provide documentation as defined in Part III: Technical Requirements, Section 3.7.4 Support Devices Documentation.
241.	Vendor shall provide operations and maintenance training to E-ZPass Group Members or their designated representatives as an optional extra (priced separately).
242.	Transponder Testers shall be certified for use in accordance with the FCC's Part 15 requirements.
243.	Transponder Testers shall meet or exceed all applicable safety and environmental requirements set by the health and telecommunications authorities of the United States, and these units shall be allowed for continuous use in an operational environment. This includes FCC requirements for human exposure to radio frequency electromagnetic fields and the specific absorption rate (SAR) limits based on IEEE C95.1-1992.
244.	If Vendor fails to deliver Transponder Testers in accordance within the agreed upon time period,, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of Transponder Testers overdue for each calendar day (Limit 100% of the retail value of Handheld Readers overdue).
245.	Delivery shall occur at the E-ZPass Group Member's specified location during business hours.

3.7.4. Support Devices Documentation

The Proposer shall provide details on how the proposed services meet the Requirements of this section.

#	Requirement Text
246.	Vendor shall provide Cut Sheets, Operating Instructions, Installation Instructions, and Maintenance Instructions as applicable for the Handheld Reader, Transponder Programmer, and Transponder Tester.

3.7.5. Support Devices Warranty & Maintenance

#	Requirement Text
247.	The Warranty period for Support Devices shall be three (3) years commencing on the date such Devices were delivered to the E-ZPass Group Member's designated delivery location.
248.	Vendor shall provide on-call remote and on-site Maintenance Support Services and other technical support for delivered Handheld Readers, Transponder Programmers, and Transponder Testers throughout the Warranty Period.

249.	Vendor shall repair or replace failed Handheld Readers, Transponder Programmers, and Transponder Testers throughout the Warranty period within five (5) Business Days of the Vendor's receipt of Equipment requiring warranty work.
250.	If Vendor fails to repair or replace Support Devices in accordance within the time stated above, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of the Support Devices in question for each calendar day that the remedy is not performed to the satisfaction of the E-ZPass Group Member. (Limit 200% of the retail value of the Support Devices in question).
251.	a. Vendor shall provide Depot Repair Services for Support Devices after the Warranty period has ended on a time and material basis.
	b. The Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V. The cost estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.

3.8. Transponder Certification

Transponder Certification is required to demonstrate the ability of the proposed Transponders to comply with the technical requirements and with the Proposer's performance claims, and to operate without any impact on the performance of the existing E-ZPass installations and customers. Successful completion of Certification requirements is necessary in order to be formally approved by the E-ZPass Group for Purchase Orders, as described in Part I, Section 3 of this RFP.

3.8.1. General Requirements

#	Requirement Text
252.	Proposed Transponders that pass the Proposal evaluation are required to be certified in the following areas: 1) Environment, 2) Regulatory, 3) Protocol, and 4) Operation. The E-ZPass Group may require additional testing based on the Transponder's features and functionality in order to be certified.
253.	Proposed Transponders that have been previously approved for use by the E-ZPass Group may have portions of Certification waived based on the scope of prior testing and documentation. Transponders that have not been previously approved shall be subject to the full scope of Certification. The scope of Certification for a proposed Transponder is at the sole discretion of the E-ZPass Group.

254.	If the Proposer's documentation is inadequate to substantiate compliance with any Certification area, the E-ZPass Group may direct additional testing or other efforts to demonstrate compliance. For Environment, Regulatory, or Protocol certification, this shall be completed with test report or other documentation submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
255.	If additional testing is required, the Proposer shall submit a test plan to the E-ZPass Group, which shall include the test scripts, procedures, test equipment, and lab, or organization conducting the test prior to conducting the test.
256.	Proposer shall setup and conduct all tests, demonstrations, licensing, and other efforts required for Certification as defined in these Technical Requirements and as directed by the E-ZPass Group. All Proposer costs related to Certification (including, but not limited to planning, coordinating, reserving use of the test site(s), setup, conducting, reporting, dismantling, insurance, testing lab fees, regulatory certification fees, and licensing fees) are the Proposer's responsibility.

3.8.2. Environment Certification

#	Requirement Text
257.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with the applicable environmental requirements for the proposed Transponders.
258.	Environmental documentation shall include test scripts, procedures, results, and reports and shall cover, but not be limited to, such items as: a. Operating temperature range; b. Relative humidity range; c. Operation in various forms of precipitation; d. Water and liquid resistance; e. Thermal shocks and gradients; f. Physical shocks and vibration; g. Electrostatic discharge resistance; h. Mounting/attachment security and integrity; and i. Drop test.
259.	For Transponders with an internal battery, the Proposer shall submit battery certification and/or test results to justify Proposer claims regarding battery life.

260.	For Switchable Transponders, the Proposer shall submit test documentation to justify Proposer claims regarding the number of switch transitions that the Transponder is warranted for. This shall at a minimum include a test sample of Switchable Transponders undergoing the warranted number of switch transitions and then being tested for switch functionality and transponder performance.
261.	For Feedback, Switchable, or other Transponders that emit audio as part of the functionality, the Proposer shall submit information on the volume and tone used.
262.	For Feedback Transponders, the Proposer shall submit test documentation to justify Proposer claims for visual luminance.
263.	a. For Waterproof Transponders, the Proposer shall provide the IP66 or greater certification test report.
	b. For non-Waterproof Transponders, the Proposer shall provide certification or other test documentation to justify Proposer claims for water and dust resistance.
264.	If the Proposer's documentation is inadequate to substantiate environmental compliance, the E-ZPass Group may direct additional environmental testing. This testing shall be completed with test report submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
265.	The Proposer shall submit a test plan to the E-ZPass Group for any additional environmental testing, which shall include the test schedule, test scripts, procedures, test equipment, and lab, or organization conducting the test.

3.8.3. Protocol Certification

#	Requirement Text
266.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with the governing standard for each protocol supported by the Transponder.
267.	Transponders supporting the 6C protocol shall be certified by OmniAir Certification Services (OCS) for 6C Interoperability.
268.	For Transponders supporting TDM or SeGo protocols, the Proposer shall provide documentation detailing the protocol compliance testing performed on the Transponders to include:
	a. Tests performed and test scripts;
	b. Results of each test;
	c. Test equipment, configuration, and equipment tuning, such as for Readers or other devices used to interact with the Transponder;
	d. Data collection process and equipment;
	e. Anomalies and errors that occurred during the test with investigative results; and

	f. Final test reports.
269.	If the Proposer's documentation is inadequate to substantiate protocol compliance, the E-ZPass Group may direct additional protocol testing. This testing shall be completed with test report submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
270.	The Proposer shall submit a test plan to the E-ZPass Group for any additional protocol testing, which shall include the test scripts, procedures, test equipment, and labor organization conducting the test.

3.8.4. Regulatory Certification

#	Requirement Text
271.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with regulations applicable to the Transponder.
272.	For "Active" Transponders where a battery or power source other than the radio frequency emissions from the Reader is used for communications, the Proposer shall submit the Transponder's FCC certification.
273.	For "Passive" Transponders where radio frequency emissions from the Reader are used for the Transponder's communications, the Proposer shall submit a Supplier's Declaration of Conformity in compliance with FCC regulations.
274.	The Proposer shall submit documentation substantiating Transponder compliance with FCC regulations on human exposure to radio frequency electromagnetic fields at typical distances between humans and Transponders, such as driver and passenger to windshield mounting locations or between E-ZPass Group Member staff to transponder when using a Handheld Reader or other Transponder Support Device.
275.	If the Proposer's documentation is inadequate to substantiate regulatory compliance, the E-ZPass Group may direct additional documentation or testing. This shall be completed with documentation submitted and approved by the E-ZPass Group before Validation Testing may be conducted.

3.8.5. Operational Certification

#	Requirement Text
276.	The Proposer shall conduct a Validation Test to substantiate operational claims and compliance with the applicable performance requirements for the Proposed Transponders unless otherwise waived by the E-ZPass Group such as for previous testing conducted for E-ZPass Group approval.
277.	All Validation Tests shall be observed by E-ZPass Group staff or designees, unless otherwise exempted by the E-ZPass Group. Given limited staff available for test observation and anticipated test load, all test scheduling shall be coordinated with the E-ZPass Group and test dates shall be subject to E-ZPass Group approval.

278.	a. The Proposer shall submit a Validation Test Plan for E-ZPass Group approval. The test plan shall include: b. Testing philosophy and methodology; c. Organization chart identifying positions and personnel, and position descriptions; d. Test site setup and configuration; e. Data collection process and equipment; f. Proposed schedule; g. Reader, Reader configuration, and tuning approach for each test site and test environment. Attachment 4 - E-ZPass Group Test Plan identifies approved Readers for testing use based on the proposed Transponders' supported protocol(s). The Proposer shall provide a test site. The Proposer shall submit the Reader configuration to the E-ZPass Group for review and approval during the Equipment Certification. The E-ZPass Group can provide typical Reader configuration to a Proposer during the Equipment Certification. h. Test scripts. For the performance test, this shall include vehicle descriptions, Transponders used, and number of iterations and transactions; and i. Documentation, prioritization, and categorization of anomalies and tracking their resolution and closure. The E-ZPass Group shall have the right to determine the final severity categorization of any anomaly.
279.	The typical test cases are provided in Attachment 4 – E-ZPass Group Test Plan. The test cases may be adapted based on test site capabilities and are subject to E-ZPass Group approval. Test case names provide the following attributes for the case: a. Speed – Gated (full stop at real or simulated gate) to 85 MPH; b. Action – Acceleration, deceleration, braking followed by acceleration, passing, simulated manual interaction at tollbooth; c. Number of Vehicles Abreast – one to four; d. Lane Position for ORT – Travel/striped lanes if not otherwise indicated in the title, straddle lanes, mixed lanes with vehicles in both travel and straddle lanes, changing lanes. Attachment 4 – E-ZPass Group Test Plan provides the typical mix of vehicle types used for testing with special vehicle types like a box truck or bus reserved for a subset of the test cases. The test cases also identify a mix of transponder form factors to use if such form factors are offered.
280.	a. The Validation Test shall be conducted in a multi-protocol operational environment and each vehicle shall be equipped with transponder(s) supporting each of the TDM, SeGo, and 6C protocols, as described in the Attachment 4 - E-ZPass Group Test Plan.

	b. At least one of the transponders in each vehicle shall be a Proposed Transponder with the other protocols handled by other transponder(s) approved by the E-ZPass Group. For example with a Proposer offering 6C transponders, each vehicle in a test case may be equipped with a proposed 6C Transponder, a Kapsch transponder for the TDM protocol, and a TransCore transponder for the SeGo protocol.
281.	If multiple Transponders are offered, the Proposer shall describe the quantity of each Transponder used in each test case, subject to E-ZPass Group approval. For example, if Interior Hard-Case, Sticker, and Switchable transponders are offered, a Proposer would identify that for Test Case 1015, four vehicles would have the Hard-Case, four would have the Sticker, and one would have the Switchable.
282.	The Validation Test shall include testing that the Transponder meets any additional proposed features and functionality. The E-ZPass Group may require that the testing demonstrate no performance degradation when used, depending on the nature of the feature or functionality. This testing may be conducted in plaza, open road, or lab environments, subject to E-ZPass Group approval.
283.	a. The Proposer shall propose test site(s) for conducting the Validation Test.
	b. For plaza testing, the test site shall have at least three (3) toll lanes with sufficient structures (booths, canopy, etc.) to simulate a plaza environment.
	c. For open road testing, the test site shall have at least four (4) 12-foot travel lanes.
284.	The Proposer shall submit the Validation Test Plan after notification that their proposed Transponder(s) has passed Proposal Evaluation
285.	a. The Proposer shall submit a Validation Test Report upon completion for E-ZPass Group approval.
	b. The Report shall include the actual environment and equipment used for testing, test conducted, results, anomalies, and investigation for the cause of each anomaly.
	c. The E-ZPass Group will review the Validation Test Report and provide feedback to the Proposer if the Transponder passed the Validation Test or it requires retesting in part or in whole. The Proposer shall be responsible for all activities related to the conduct of any retests.

4. Multi-Protocol Readers

4.1. Reader Models and Components

For each Reader model proposed, provide details to confirm that it meets the relevant Requirements. Provide product cut sheets in an Appendix of the Proposal.

These Technical Requirements use the following terms related to the Reader:

- Reader – The collective system consisting of the following Reader Components: Reader Unit, Antenna(s), Cables, and Accessories. The Reader may process transactions for one or more

lanes and communicate with one or more Lane/Zone Controllers.

- Reader Unit – The Reader Component that processes communications with Transponders via the Antenna(s) and sends transactions to the Lane/Zone Controller. The Reader Unit is typically housed in an enclosure off the roadway, such as near the side of the antenna gantry or in a tunnel or may be provided as a hardened unit not requiring an additional enclosure. The Reader Unit may consist of one or more Modules that are assembled into a single physical unit or physically separate Modules such as a processing module and a power supply module.
- Antenna – The Reader Component used to radiate and receive radio frequency waves to and from the transponder and the Reader Unit. This is typically mounted overhead or at the side of the lane. One or more Antennas may be connected to one Reader Unit.
- Cables – The Reader Component used to connect and transmit RF communications between the Reader Unit and Antenna.
- Accessories – Reader Components used to support the installation and functioning of the Reader such as Antenna mounts and Reader Unit enclosures.

For each Reader proposed, Proposer shall include all Reader components as above, plus the Reader Support Services. Reader Annual Maintenance Services are optional.

#	Requirement Text
286.	a. The Proposer shall describe each proposed Reader and its Components. The description shall include the physical and logical architecture of its Reader.
	b. The Proposer shall also provide the acceptable and the recommended Component locations and antenna layouts in plaza and open road tolling environments.
287.	The Proposer shall describe the different configuration options for the Reader such as different antenna types, communication modules, or redundant modules.

4.2. Reader Functional Requirements

The Proposer shall provide details on how the proposed Reader(s) meets the Requirements of this section.

4.2.1. General

#	Requirement Text
288.	a. The Reader architecture shall be capable of operating with a single protocol required in Section 4.2.2 or any combination of those protocols with equipped vehicles traveling simultaneously through all lanes, for toll plazas with up to 28 (multi-direction) lanes and open road tolling sites with up to eight (8) lanes of live traffic including two (2) shoulders (single direction).

	b. The Proposer shall also describe the ability of the Reader to support larger installations.
289.	The Proposer shall describe the Reader architecture and configuration to support different plaza and open road tolling site layouts and the lane synchronization requirements to minimize interference between lanes and between plaza or gantry directions for Transponder-Reader communications. This shall include sites with both plaza and open road tolling areas and any separation requirements between lanes or channels for different directions or plaza and open road tolling areas.
290.	a. When two or more Transponders using protocols as specified in Section 4.2.2 are present and properly presented in the Capture Zone at the same time, communications should take place with each of the Transponders according to these requirements, whether the Transponders use the same or different protocols. b. For multi-protocol Transponders, communications should take place with the Transponder in each protocol supported by the Transponder that the Reader is operating with.
291.	a. The Proposer shall describe the typical dimensions of the Capture Zone and its relation to the antenna(s) at the minimum height of 13.5 feet, maximum height of 22.7 feet, and typical mounting height of 16 feet, as well as its relation to other lane elements in toll plaza and open road environments for the proposed Reader configuration. b. The Proposer shall also describe the configurability of the Capture Zone at the typical, maximum, and minimum mounting heights and antenna mounting angles that will achieve the performance requirements as well as the Proposer's recommended heights and antenna mounting angle for optimum performance.
292.	The Proposer shall describe the relation of the Transponder Reporting Zone to the Capture Zone and to the vehicle location at typical vehicle speeds found in plaza and open road environments, up to 100 MPH, including at least 5, 15, 30, 55 and 75mph, and the ability to configure transponder reporting to the lane/zone controller.
293.	a. The Reader shall support remote updates of the software using the lane/zone controller interface or diagnostic interface. b. The Reader should support local updates such as using a laptop connected to the diagnostic interface or storage device connected to a local port. c. The Proposer shall describe the process for updating Reader software to include interface(s) used, how the update is initiated, where the software update can be located for transfer to the Reader (e.g., downloaded from lane/zone controller, SFTP site, network drive, local USB drive), and any security features to prevent unauthorized updates to Reader software.
294.	The Reader shall provide a means to determine and report the condition of any battery that is part of the Reader, such as the CMOS battery or any batteries used for data retention.
295.	If the Reader uses redundant components: a. The Proposer shall describe how redundancy will be provided, how switchover between primary and secondary Reader components occurs, and how long this process takes. b. The detection and switchover shall be automatic and should occur within 1.5 seconds of the failure. c. The Reader shall inform the lane/zone controller of any switchover in part or in whole. d. No transactions shall be lost in the event of a switchover.

4.2.2. Protocol Support

#	Requirement Text
296.	a. Readers shall support the simultaneous use of the following protocols at a minimum: TDM, SeGo, and 6C.
	b. The Proposer shall identify any additional protocols or any additional features and data fields for the required protocols supported by the Reader.
297.	a. The Reader shall support Members selecting and changing the protocol(s) in use, to include increasing or decreasing the protocols in operation, e.g. from single-protocol mode to tri-protocol mode.
	b. The Proposer shall describe the process for changing the protocol(s) in use.
298.	The Proposer shall describe the Reader parameters and settings that can be modified for each individual protocol and those that are global to all protocols.
299.	For TDM, the Readers shall meet the requirements set out in the document: “Rev_C_Active_TDM_Over_Air_Spec_for_Electronic_Toll_Communications.pdf” (available from Kapsch® TrafficCom IVHS Inc. via the E-ZPass Group website https://www.e-zpassag.com/ Interoperability TDM Specifications. Registration and license acceptance may be required by Kapsch® for access). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.
300.	For SeGo, the Readers shall meet the requirements set out in the document: “SeGo-Protocol-Description.pdf”, Rev D, (available from TransCore® via the E-ZPass Group website https://www.e-zpassag.com/ Interoperability SeGo Specifications. Registration and license acceptance may be required by TransCore® for access). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.
301.	For 6C, the Readers shall be compliant with most recent 6C Toll Operators Coalition (6C TOC) AVI Transponder Programming Standard at the time of Contract Award (available via download link found at http://6c-toc.com/ , “6C TOC AVI Standard Version 3.2” at the time this RFP was prepared). Specific requirements as to the contents for the Agency and Reader programmable memory areas will be made available to the successful bidder after Transponder Certification.

4.2.3. Transponder Compatibility

Transponders are categorized into one or more of the following three classifications based on how they communicate with the Reader. Some Reader requirements are specific to Transponder Compatibility and classification as described in this section.

- **Format-Compatible** – A transponder that communicates with the Reader in one or more E-ZPass-approved protocols and supports all E-ZPass Group-required data fields.
- **Capture-Compatible** – A transponder that communicates with the Reader, but which may not have all data fields required by the E-ZPass Group for the applicable protocol. Format-Compatible transponders are Capture-Compatible but not necessarily vice-versa.

- Incompatible – A transponder that the Reader is unable to communicate with when in the capture zone.

Transponder Compatibility	Communicates with Reader	Supports All Data Fields
Format-Compatible	Yes	Yes
Capture-Compatible	Yes	Optional
Incompatible	No	No

#	Requirement Text
302.	The Reader shall be able to meet all Reader requirements in transactions with Format-Compatible transponders regardless of transponder manufacturer.
303.	The Reader shall report all successful transactions with Format-Compatible transponders to the lane/zone controller.
304.	The Proposer shall describe the process to identify transponders as Format-Compatible or for the other classifications so that the transponder may be processed correctly.
305.	The Proposer shall describe the ability of its Reader to filter and report to the lane/zone controller any Format-Compatible and Capture-Compatible Transponders not issued by E-ZPass Group Members, not programmed for tolling applications, or by other transponder parameters; if the Reader can be configured to report these Transponders or not; and if there is a process at the Reader level to designate Format-Compatible Transponders as being from an E-ZPass Group Member, such as when a new toll agency joins the E-ZPass Group.
306.	a. The presence of Incompatible transponders in or near the capture zone should not interfere with the Reader's ability or timing to read, write, or transmit data from Compatible transponders that are present in the capture zone.
	b. The Proposer shall describe cases where an Incompatible transponder may interfere with Reader performance and function.

4.2.4. Data Storage and Buffering

#	Requirement Text
307.	a. The Reader shall be able to buffer a minimum of 15,000 toll transactions and error messages per lane in a toll plaza environment and a minimum of 30,000 toll transactions and error messages per travel lane in an open road toll environment.
	b. The Reader shall be expandable to support at least 100,000 toll transactions and error messages per travel lane.
	c. The Proposer shall describe the expandability of the Reader data storage capability and the maximum storage capability available.
308.	While buffering: a. The most recent toll transactions and the oldest error messages shall be maintained.

	b. In the event memory capacity is approached, toll transactions shall have priority over error messages.
	c. Once the event memory capacity is reached, toll transactions should overwrite stored error messages until full, at which point newer transactions should overwrite the oldest transactions.
309.	a. The Reader should be capable of retaining toll transactions in memory for at least twenty-four (24) hours after power is removed from the Reader.
	b. The Reader should be capable of expansion to retain data for longer periods.
	c. The Proposer shall describe their minimum data storage and options available for extending data retention after power loss, and any long-term maintenance requirements to maintain that capability, such as periodic battery replacement.
310.	Upon resumption of communications with the lane/zone controller after an interruption:
	a. The Reader shall transmit saved data to the lane/zone controller in the order in which it was received (First In, First Out).
	b. This transmission shall not interfere with the processing and communications of real-time transactions.
311.	a. The Proposer shall describe its data storage architecture and how it meets requirements for transaction and error message storage, buffering in the absence of communications with the lane/zone controller, and data retention in the absence of power.
	b. The Proposer shall also describe the longevity of components in its architecture to include any batteries and memory, any ability to detect when those components may require replacement to continue meeting requirements, and the process to replace those items.

4.2.5. Additional Functionality

In describing additional functionality, the Proposer shall also comment on how the feature would operate at the Reader in conjunction with the lane/zone controller, Transponders, other elements of the toll system, E-ZPass Group Member's staff, and drivers; safe use of the feature so as not to distract drivers or staff; process to implement the feature in the field such as the need to install new equipment or upgrade readers; and impact on performance and other required functionality.

The Proposer shall also address any impact or limitations for the functionality in an operating environment with a mix of Transponders that may or may not support the functionality or where the functionality is only supported by a subset of E-ZPass Group Members or at a subset of a Member's toll plazas or open road tolling sites.

#	Requirement Text
312.	An optional function for the Reader is support for feedback where the Reader provides account status (e.g. valid, low balance, negative balance/invalid) to a feedback capable Transponder to provide an alert to the customer.
	a. The Proposer shall identify the Reader's ability to support this feedback functionality.
	b. If feedback is supported, the Proposer shall identify the data required from the lane/zone controller or other external system and if the existing interface supports such feature or if enhancements are required.

	c. The Proposer shall also identify how many transponder IDs and accompanying account statuses can be stored by the Reader and how incorporating this function may affect transaction and error message storage.
313.	The Proposer shall describe the ability to upgrade Reader software, to include firmware, on its existing hardware to provide additional functionality. This functionality may include support for modifications to existing protocols or transponder data fields, additional protocols, new user interfaces for diagnostics, enhanced security, or communicating with external components that provide alternative means for toll collection, such as using Bluetooth or NFC for customer identification.
314.	a. The Proposer shall describe the ability to upgrade the Reader hardware to support future functionality and enhanced performance. This may include changes to the Reader processor, memory, storage, and communications to the antennas, lane/zone controller, or new devices as may be introduced into the toll environment.
	b. The Proposer shall identify any limitations to the upgradeability such as power consumption or communications bandwidth.
315.	The Proposer may describe any other existing or potential features, functionality, and performance that the Reader offers that is not covered by other requirements.
316.	New features and functionality may require field testing to demonstrate performance requirements continue to be met, with the scope of testing based on the feature and its implementation.

4.3. Reader Performance Requirements

#	Requirement Text
317.	a. All reader performance requirements shall be met by the reader for each presented transponder while the reader is configured to enable at least all three required protocols and regardless of the mix of transponder protocols passing through the Toll Zone.
	b. For each multi-protocol transponder passing through the Toll Zone, the reader shall meet the performance requirements for each protocol supported by that transponder as if separate single protocol transponders had been presented.
318.	Capture Rate: The Reader shall capture properly mounted Transponders passing through a Toll Zone accurately at least 99.9% of the time, or no more than one (1) missed read or incorrect detection in one thousand (1,000) Transponder-equipped vehicle passages, regardless of the mix of protocols in use and Transponders passing through the toll zone.
319.	Read Accuracy Rate: a. All data fields related to an equipped vehicle passage shall be captured by the Reader without error at least 99.99999% of the time (no more than one erroneous data field in 10 million captures) from the Transponder.
	b. In addition, no more than one (1) such error in ten (10) data field errors (one (1) error in 100 million captures) shall result in the wrong identification number becoming associated with the capture.

	c. The Proposer shall describe its process for guaranteeing the accuracy of read operations.
320.	Write Accuracy Rate: a. The Reader shall successfully write to properly mounted Transponders passing through a Toll Zone with an accuracy of 99.8%, or no more than two (2) missed or incorrect writes in one thousand (1,000) Transponder-equipped vehicle passages, in each protocol supported, regardless of the mix of protocols in use and Transponders passing through the toll zone. b. The Proposer shall describe its process for ensuring that writes are performed correctly and without errors.
321.	Lane Allocation Rate: a. The Reader or Readers at a multi-lane location shall support the accurate assignment of a transponder to a specific lateral lane position. Either the Reader shall allocate and report, or the Reader shall provide the data that combined with the Proposer's algorithm can be implemented by a lane/zone controller to allocate and report, each Transponder once and in only one lane or pavement area 99.98% of the time (no more than two missed or duplicate reports in 10,000 equipped vehicle passages) in each protocol supported regardless of the mix of protocols in use and Transponders passing through the toll zone. b. The Proposer shall provide the rate at which Transponders could be reported in multiple lanes in toll plaza and open road tolling environments.
322.	Plaza Lane Assignment Accuracy: In a toll plaza environment, the Reader(s) shall correctly identify or provide data to correctly identify the Transponder's travel lane with an accuracy of 99.98% (no more than two cross-lane reads in 10,000 equipped vehicle passages) in each protocol supported regardless of the mix of protocols in use and Transponders passing through the Toll Zone.
323.	Open Road Lane Assignment Accuracy: a. In an open road tolling environment, the Reader(s) shall correctly identify, or provide the data to correctly identify, the vehicle's lane of travel or pavement area, with a margin of error of half a lane, so that vehicles traveling side-by-side and/or straddling lanes in the Transponder Reporting Zone can be differentiated and correctly reported 99.9% of the time in each protocol supported regardless of the mix of protocols in use and Transponders passing through the toll zone. The typical lane width for this requirement is twelve (12) feet. b. The Proposer shall also describe any effects on accuracy for lane widths of ten (10) feet and fourteen (14) feet.

324.	The Reader(s) may meet the Lane Allocation Rate, Plaza Lane Assignment Accuracy, and Open Road Lane Assignment Accuracy requirements by internally determining the transponder's lane ("voting") based on data from multiple lanes and providing the lane assignment to the lane/zone controller as a result of this voting process. In this case, Reader performance shall be calculated based on the transponder report and lane assignment provided by the Reader. The Reader(s) may also meet these requirements by providing sufficient data to the lane/zone controller(s) for the controller(s) to make this determination using voting logic outlined by the Proposer, such as may be needed where the Reader design only supports one antenna per Reader and the lane/zone controller(s) receives data from multiple Readers. In this case, Reader performance shall be calculated based on the lane allocation and lane assignment as determined by the lane/zone controller's implementation of the Proposer's voting logic. a. The Proposer shall describe the process used and data provided by the Reader(s) to the lane/zone controller to achieve the required Lane Allocation Rate, Plaza Lane Assignment Accuracy, and Open Road Lane Assignment Accuracy. This shall include the message(s) used to provide lane assignment information and the timing of the message(s) in relation to the transponder's passage through the capture zone, and to other messages provided by the Reader, such as if the Reader provides a Transponder ID detection message prior to messages that include lane assignment data. b. The Proposer shall also describe any Reader configurability that may modify the data provided and message timing.
325.	The Proposer shall describe how its Reader processes Transponders that are straddling lanes to ensure that two side-by-side vehicles straddling either side of a lane are not reported from the same lane of travel or in reversed positions where, for example, the Transponder physically to the left is reported from the right lane, and vice versa.
326.	The Proposer shall describe its reporting of Transponders determined to be in a straddle lane, to include any configurability for shifting a straddle lane report to a travel lane.
327.	The Proposer shall describe the Reader's definition and identification method for lanes or roadway pavement areas in an open road tolling environment. Lane definitions do not need to be limited to physically defined lanes and may include "ghost" (feeder) lanes or un-delineated pavement areas for the assignment of vehicles that are switching lanes while traveling through the Capture Zone. This description shall also include if there is the ability to identify a Transponder's lane position in further detail and the accuracy of this position determination.
328.	E-ZPass Group Members may be limited to certain antenna layouts due to infrastructure constraints. For example, an in-line antenna layout may be the only feasible option. The Proposer should identify if the Readers and Antennas can meet performance requirements for Capture Rate, Read Accuracy Rate, Write Accuracy Rate, Lane Allocation Rate, and Open Road Lane Assignment Accuracy as defined in Section 4.3 for various combinations of antenna layout and protocol(s) in operation.
329.	If any of these performance requirements cannot be met for a particular combination of antenna layout and protocol(s) in operation, the Proposer should provide the minimum performance that can be achieved per Attachment 6. Proposers are not required to meet performance requirements if an antenna layout is not one of the acceptable layouts as identified by the Proposer in other requirements.

4.4 Reader Communications

4.4.1 Communications Interfaces

#	Requirement Text
330.	a. The Reader shall have an available 10/100/1000Mb Ethernet interface supporting TCP/IP communications and capable of auto detection.
	b. A dual Ethernet connection is preferred for redundancy.
331.	a. The Reader should have the option for an RS-232 or RS-422 serial port per lane, configurable for synchronous or asynchronous full duplex communications at baud rates of at least 57.6k, 38.4k, and 19.2k baud.
	b. If equipped with an RS-232 or RS-422 serial port, the Reader shall permit the configuration of the number of stop/start bits, parity, and bit count options using an industry standard UART.
332.	a. The Reader should include a separate communications port for Reader diagnostics that can be connected to locally and remotely.
	b. Ethernet diagnostic ports should support Simple Network Management Protocol (SNMP).
333.	a. The Reader should include a USB port for local file exchange.
	b. If supported, the Proposer shall identify the port receptacle (Type A, Type C, etc.) and supported data rates (480 Mb/s, 5 Gb/s, 10 Gb/s, etc.).
334.	The Reader should allow an authorized user to enable or disable any communications interface or port.
335.	a. The Proposer shall describe the interfaces, communication speeds, and number of ports by type available with its Reader for lane/zone controller communications; local and remote diagnostics; transaction and log file downloads; and, if required by the Reader architecture, inter-Reader communications.
	b. The Proposer shall identify the TCP/IP ports used by its Reader for any communications.
336.	a. The Proposer shall describe transaction, log, and other files that may be locally or remotely downloaded from the Reader and how they may be viewed and processed.
	b. The files should be able to be opened in a text editor and human-readable without requiring any file conversion or processing.
337.	a. The Proposer shall provide documentation describing the format and meaning of all transaction messages and entries in log files and any other files the reader is capable of creating and storing.
	b. Upon product certification, the Vendor shall maintain this documentation and changes to any of this data due to new functionality or firmware shall be incorporated in the previous version's documentation.

4.4.2 Lane/Zone Controller Protocol

#	Requirement Text
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338.	The Reader shall support the following features in its Lane/Zone Controller Protocol, as further detailed in this section. a. Acknowledgements – The protocol requires acknowledgements upon receipt of a message by either the Lane/Zone Controller or the Reader. The acknowledgement shall indicate whether the message was received with or without error. b. Retransmission Requests – The protocol shall provide for message retransmission, especially in the case where the Reader or lane/zone controller receives a message with errors. c. Message Failure Handling - There may be cases where the Reader or the lane/zone controller receives a message with errors, but a retransmission is not requested. For example, the protocol should provide features to prevent the Reader and lane/zone controller from entering an infinite loop of retransmission requests if the error cannot be corrected. The Proposer shall describe how the protocol handles failures.
339.	The Reader should support the following features in its Lane/Zone Controller Protocol. While the preference is that there be specific messages to support each feature, a Proposer may satisfy the requirement through a combination of messages or other means of communications with the lane/zone controller to achieve the same capability unless otherwise prohibited in the requirements. a. Successful Transaction – The Reader sends a message with a completed a transaction with a Transponder, captured all necessary fields, and, if necessary, successfully written back to the Transponder. This may include lane position data. b. Partial Transaction – The Reader sends a message indicating detection of a transponder and initial read data but without all write confirmation and lane position data. This may be used to more quickly communicate initial transponder detection where transaction post processing (e.g. voting logic) needs to be implemented in the reader. c. Initialization / Reinitialization – The lane/zone controller requests the Reader to initialize or reinitialize. The Reader responds when it has completed initialization or reinitialization. d. Startup / Shutdown – The lane/zone controller requests the Reader to startup or shutdown. The Reader responds when it has completed startup or initiated shutdown. e. Time and Date Reset / Sync – The lane/zone controller requests the Reader to either reset to a provided time and date or to synchronize with a network time server. f. Transaction Number Reset – The lane/controller requests the Reader to reset the transaction number sent in its messages either to a default number or to a provided number. The Proposer shall also describe its transaction numbering process. g. Configuration / Reconfiguration – The lane/controller provides the Reader with either new configuration parameters or a request to download a new configuration. The Reader responds upon completion of configuration / reconfiguration. h. Restart Transaction Download – The lane/zone controller requests the Reader to restart sending transactions if sending has been paused due to command or error status. i. Send Buffered Transactions – The lane/zone controller requests the Reader to send/resend transaction data stored in its memory. j. Status / Status Updates – The lane/zone controller requests from the Reader or the Reader provides without prompting its operating status or changes to its status.

	k. Write Commands – The lane/zone controller requests the Reader to write certain data for certain fields to a specific Transponder or to all Transponders, such as a plaza ID, lane ID, sequence number, and/or date and time. l. Heartbeat – The Reader sends an unsolicited or solicited message at a periodic rate to the lane/zone controller. m. Redundant Module Failover (if Reader uses redundant modules) – The Reader informs the lane/zone controller that it has switched from using one redundant module or component to another component. The message should indicate which module or component has failed as well as what condition led to the determination of failure.
340.	The Proposer shall describe if and how its Reader supports sending messages that identify the following types of transactions: a. Transactions with Unprogrammed Transponders – The Reader detects that a Transponder was not programmed at the factory. If supported, the Proposer shall define the contents that constitute an Unprogrammed Transponder and the Reader actions upon detecting one. b. Transactions with Corrupt Data – Data from transactions with a Transponder where the Reader determines the data retrieved is corrupt. The Proposer should describe what defines corrupt data and the identification process. c. Transactions with Format Incompatible Transponders – The Reader was able to initiate a transaction with a Transponder but unable to complete due to unrecognizable data fields. The Proposer should describe what would trigger this message. d. Unsuccessful Identification Transaction Attempts – The Reader detected a Transponder in the Capture Zone but was unable to complete the transaction for a reason not covered by other messages.
341.	The Reader shall identify each Transponder protocol used in transaction messages, whether a successful transaction or other types of transactions.
342.	a. The Reader shall inform the lane/zone controller when a failure occurs with the exception of a communications failure that prevents such notification. These failures may include single and multi-lane failures as well as failures of non-critical or redundant components. b. The Proposer shall describe the capabilities of the Reader for informing the lane/zone controller of any failures and note any instances where the Reader will be incapable of informing the lane/zone controller of a failure.
343.	The Proposer shall describe all Reader input and output messages for all data transactions, error transactions, diagnostic messages, operational messages, etc. that shall be sent to or received from lane/zone controllers. This shall include describing all data fields, range of parameters for the data fields, intervals at which messages are generated (and whether the intervals are configurable) and interface protocols that can be provided by its Reader.
344.	a. The timing to present Transponder data from the Reader to the lane/zone controller shall be fast enough in order to accommodate the operation of other pieces of equipment in the toll lane (e.g. lights, gates) for all Transponder and Reader types, configurations, and installation scenarios.

	b. Proposers shall provide detailed step-by-step timing diagrams describing all interactions between the Reader and lane/zone controller and between the Reader and Transponder. These timing diagrams shall cover all messages and interactions supported by the Reader including exception conditions.
	c. Reader-Lane/Zone Controller timing diagrams shall be provided for both Gigabit Ethernet communications and communications using a serial port configured for 57.6k baud if supported by that reader.

4.4.3 Diagnostic Interface Functionality

#	Requirement Text
345.	The Reader's diagnostic interface shall provide web browser access to a real-time view of Reader activity and be able to run and report on internal tests.
346.	For troubleshooting purposes, failures should be stored in a failure log capable of being reviewed and downloaded via the diagnostic interface web browser.
347.	a. Transaction processing shall always take priority over diagnostics.
	b. The Reader shall be capable of processing transactions in real-time along with diagnostics on any component.
348.	The Proposer shall describe the diagnostic capabilities of the Reader to include the conditions monitored, conditions reported to the lane/zone controller, how the conditions are monitored, ability to download diagnostic logs and data, the time needed to go from detection of a failure to notification of the lane/zone controller and, when necessary, switchover to any redundant Reader components.

4.5 Reader Form Factor, Mounting, Installation, and Maintenance

Proposers may offer non-hardened readers that require installation in equipment cabinets or may propose a hardened reader that is suitable for mounting directly to roadside infrastructure without additional heating/cooling or protection from the elements. The Proposer shall provide details on how each proposed Reader meets the Requirements of this section based on the form factor and physical characteristics of the reader being proposed. Proposers may offer different readers for different situations including roadside cabinet mounted, gantry or pole mounted and city street (for congestion pricing) installation and shall describe the attribute of the reader that make it suitable for the proposed installation.

4.5.1 Form Factor

#	Requirement Text
349.	a. The Reader shall be modular, with connectors, and be easily accessible for servicing purposes.
	b. Individual modules shall be able to be removed without removing adjacent modules, assemblies, or cables.
350.	Enclosure-mounted Reader Components should fit in an enclosure no larger than 36 inches high x 30 inches wide x 20 inches deep.

351.	The Proposer shall not require any enclosure to be located within 12 inches of the curb in a lane.
352.	a. Gantry-mounted Reader Components shall be as small as possible.
353.	b. Gantry-mounted Reader Components shall meet the requirement defined for overhead and side mount Reader Components in Section 4.5.2 in terms of safety and toll lane clearance.
354.	Reader Components and Modules that are rack mounted shall fit a standard 19-inch rack.
355.	Reader Components requiring a side-mount mounting location on the toll booth island, referred to as "Side-Mount Reader Components", shall be such that it does not obstruct vision resulting in a hazard in the same or adjacent lane to either toll collection personnel or the motoring public nor interfere with the duties of the toll collector.

4.5.2 Mounting and Installation

#	Requirement Text
356.	a. Reader installation shall be as simple as possible.
	b. No Reader shall be required to be installed indoors.
	c. The Proposer shall describe its installation requirements, processes, equipment required, and infrastructure required.
357.	a. After site evaluation and selection of components, the Reader shall be installable by non-specialists with appropriate training from the appropriate trades, electrical technicians, and road workers.
	b. Installation guidelines and the user manual shall be provided with all the details required to perform a quick and successful installation, verification, calibration/tuning, and commissioning.
358.	The Proposer shall identify the proposed typical locations of all Reader Components in all installation types supported including toll lane with tunnel, attended toll lane, automated booth-less toll lane, open road tolling and city street configurations to meet the requirements defined herein.
359.	The Proposer shall provide dimensions and weight for all Components mounted overhead.
360.	a. The Proposer shall clearly describe the mounting requirements for all lane types supported and indicate any non-standard mounting hardware for any overhead Components.
	b. The Proposer shall provide all non-standard mounting hardware.
	c. The Proposer shall also describe any quick fastening devices for ease and speed of mounting, especially in an open road tolling environment. The description shall include information as to where they are currently in-use.
361.	The Proposer shall provide the wind loading for its overhead Components in all standard mounting configurations.
362.	The Proposer should describe how its Reader can be configured to support reversible lanes.
363.	The Proposer's overhead Components, when installed, shall maintain a minimum 13.5-foot clearance at all facilities except where unattainable due to facility limitations.

364.	a. The Proposer shall meet the accuracy requirements as presented in Section 4.3 for all mounted heights between 13.5 feet and 22.7 feet. Where sufficient clearance is not possible while maintaining the proposed accuracy at a facility, the E-ZPass Group Member will work with the Proposer to come to a satisfactory installation solution.
	b. The Proposer shall describe the accuracy effects when Components are mounted outside this range and how accuracy can be maintained at lower ranges if the Reader supports installations such as city streets.
365.	Side-Mount Reader Components shall be installed so that they do not pose a physical obstruction hazard to personnel whose duties require access to and around the toll booth island and the toll lane.
366.	a. Side-Mount Reader Components shall be located so as not to protrude beyond the face of the tollbooth in lanes with booths or not to extend any closer than 12 inches to the edge of the curb in lanes without tollbooths.
	b. The Proposer shall ensure adequate clearance from mirrors and other attachments which are installed on the sides of vehicles.
367.	a. In an open road tolling environment, Side-Mount Reader Components may not protrude into travel or shoulder lanes and shall meet local regulatory set-back standards.
	b. Proposers shall describe limitations regarding use of Side-Mount readers, if offered, with respect to distance from travel lanes.
368.	a. The furthest cable shall support the selected protocols for a minimum distance of at least a 200 foot cable run between antenna location and Reader Unit without the need for repeaters to allow the Reader to be installed in an appropriate location for each lane.
	b. The Proposer shall describe limitations on cable lengths and types of cable required to cover the different distances supported.
	c. Proposer shall describe how plazas wider than 200 feet can be supported.

4.5.3 Maintenance

#	Requirement Text
369.	a. Reader Mean Time To Repair (MTTR) shall not exceed 1-hour from the arrival of a trained (according to Proposer provided training requirements) service technician with the necessary equipment and parts and being provided necessary access. The analysis of repair times shall be performed in accordance with MIL-HDBK-472, Maintainability Prediction, Procedure V.
	b. Reader Mean Time To Repair (MTTR) should not exceed 30 minutes from the arrival of a trained (according to Proposer provided training requirements) service technician with the necessary equipment and parts and being provided necessary access. The analysis of repair times shall be performed in accordance with MIL-HDBK-472, Maintainability Prediction, Procedure V.
370.	a. Where the Reader uses redundant components, the Reader shall provide a means to independently service and test both redundant components or, if fully redundant, the unit as a whole.

	b. The design for redundant components shall support 'hot-swapping' such that Reader operation can continue unimpeded while maintenance is being performed.
371.	The Proposer shall provide information on the types of equipment (e.g., diagnostic, troubleshooting, repair) necessary to effectuate repairs of the Reader, as well as a listing of spare parts recommended to be inventoried by the E-ZPass Group Members. This information shall also include notation of those components which would require excessive time (e.g., greater than 30 minutes) to effect repairs.

4.6 Reader Physical, Electrical, and Environmental Requirements

4.6.1 Operating Environment

#	Requirement Text
372.	Readers shall be designed to operate without Performance degradation under worst case traffic conditions including the following:
	a. Vehicles traveling up to 100 miles per hour;
	b. Stop-and-go traffic with continuous intermittent acceleration and deceleration between 0 and 15 miles per hour;
	c. Stopped and queuing traffic where vehicles may be within the Capture Zone for several minutes due to a traffic incident;
	d. Vehicles tailgating;
	e. Different mixes of all vehicle types encountered on North American roads including but not limited to cars, trucks, tractor-trailers, recreation vehicles, motorcycles, buses, and delivery vans;
	f. Vehicles arriving simultaneously at the Transponder Capture Zone;
	g. Vehicles changing and/or straddling lanes; and
	h. Vehicles travelling through a toll plaza lane with overhead metal canopy, metal toll booths, lane separation and support structures.
373.	a. Readers should be designed to operate without performance degradation under worst case environmental conditions that may be encountered in North America either with modules permanently installed in a separate, non-heated, non-air conditioned cabinet or without cabinet protection for a ruggedized reader.
	b. The Proposer shall provide detailed specifications of the environmental conditions supported by each of their Readers.
	c. The conditions to be supported include but not limited to:
	i. Reader Operating Temperatures ranging from -30° F to +165° F;
	ii. Rain: 1/4 inch of rain per minute;
	iii. Fog: 10 feet visibility;
	iv. Relative Humidity: 0% - 100%;
	v. Ice: 1/4-inch thickness between the Transponder and the Antenna;

	vi. All forms of driving precipitation (sleet, hail, blizzard, etc.);
	vii. Mud, Dust, Sand, and any other debris or contaminants as might be found in toll lanes or open road tolling sites; and
	viii. Direct sunlight.
374.	The Reader shall perform satisfactorily in the range of environmental conditions found in the roadway and toll plaza across E-ZPass Group Members' operating areas.
375.	Reader Components in enclosures should meet or exceed NEMA standard TS-2 for temperature, humidity, vibration, and shock.
376.	a. If Reader electronic modules require protection from the environment, Proposer shall describe the required cabinet specifications in order to meet the environmental condition described above without performance degradation.
	b. E-ZPass Group prefers use of NEMA 4X (or, at the E-ZPass Group Member's option, NEMA 6P) enclosures to meet this requirement and Proposer should describe how their equipment can be used with the preferred cabinets.
377.	a. Other Reader modules shall be provided in suitable weatherproof enclosures, and all cables and connections shall be encapsulated to prevent ingress of moisture and corrosion.
	b. The Proposer shall describe any exceptions to the environmental conditions that the Reader may not withstand including the effect on performance.
378.	E-ZPass Group Members prefer use entirely of MIL-STD-883 approved components. For components not so approved, the Proposer shall explain how operability will be achieved for the environmental conditions specified.
379.	All printed circuit boards shall be coated or enclosed to protect the board and components from degradation, humidity, pollutants, organic material, and debris.

4.6.2 Power

#	Requirement Text
380.	a. The Reader shall operate from a single 95V to 135V, 60 ±2 Hz, conditioned power connection in each lane or group of lanes.
	b. The Proposer shall identify all Reader-related power requirements for all configurations.
381.	a. In the event of sudden failure of all external power to the Reader, the Reader shall not lose or otherwise corrupt any transactions or configuration data stored in its memory.
	b. The Reader shall be capable of automatically restarting upon the restoration of power in the state that the Reader was in upon power loss.
382.	a. The Proposer shall describe if a Reader can connect to multiple power sources and any capabilities for automatically switching to alternate power supplies if power becomes unavailable from the primary power supply.
	b. The Proposer shall also describe the time to switch power and the ability of the Reader to continue conducting transactions during switchover.

4.6.3 Radio Frequency Spectrum

#	Requirement Text
383.	a. The Reader shall comply with applicable federal, province, state and local licensing and regulations applicable to each supported protocol's frequency bands.
	b. Proposers shall identify all related licensing and regulations associated with their Reader and describe how licensing will be obtained and what is necessary to meet the relevant regulations.
384.	Readers shall utilize such FCC allocated radio frequencies as appropriate for this application and supported protocols.
385.	Readers shall meet all applicable FCC Standards for the life of the Equipment.
386.	a. Readers shall operate and be licensable to provide protection from interference (other than Transponders).
	b. If there are different levels of license available (primary, secondary, other), the Proposer shall ensure that its Reader is eligible for nothing less than a secondary license.
387.	The Proposer shall confirm no effect to the Reader from electromagnetic interference or noise, electrical interference, and mechanical interference that may typically be found in a toll plaza environment from sources such as, but not limited to:
	a. Wireless data and voice Services such as 802.11 Wi-Fi networks, Bluetooth communications, Near Field Communications (NFC), and cellular telephone/data networks;
	b. Satellite radio signals;
	c. GPS devices;
	d. Vehicle electronics;
	e. Ignition systems;
	f. Electrical appliances;
	g. Lightning (except for direct hits);
	h. Power tools;
	i. Power lines;
	j. Power transformers;
	k. Mobile and portable communications radios;
	l. Video Enforcement and Automatic Vehicle Classification Equipment, including inductive loops and lasers;
	m. Toll plaza infrastructure such as overhead metal canopy, metal toll booths, lane separation and support structures;
	n. Security systems;
	o. Lighting;
	p. Speed radar sources and detectors;
	q. Air conditioning units;

	r. Windshield wipers;
	s. Detuned engines;
	t. Defrosters; and
	u. Anything else that would reasonably be found in a tolling environment.
388.	The Proposer shall identify sources that may cause RF interference in the lane that may cause a malfunction or reduction in the accuracy of its Reader.
389.	a. Reader shall be FCC Part 90 approved/licensed.
	b. Proposer shall provide RF testing results to E-ZPass Group Members on request.
	c. Any test results obtained by the Proposer during the term of this Agreement shall also be made available to E-ZPass Group Members.

4.6.4 Safety

#	Requirement Text
390.	a. The Reader shall meet or exceed all applicable safety and environmental requirements in addition to any requirements listed herein.
	b. The Reader shall not pose either a short-term safety risk or a long-term health risk to drivers, toll collector, technicians, other people who may frequently be in the vicinity of the Reader, or any other people.
	c. For readers proposed for city street suitability, Proposer shall be prepared to provide safety study information support meeting of this requirement.
391.	All Reader Components shall be able to operate continuously and still meet all pertinent specifications stated herein.
392.	a. In-lane Reader Components shall not obstruct the field of view of toll collectors and drivers, impede access to the toll booth, nor restrict the ability of toll plaza personnel to walk from lane to lane.
	b. Location of these Components shall preclude being hit by normal traffic.
393.	All transactions shall be automatic without any involvement of the driver.
394.	Safety labels shall be placed on Reader Components as appropriate based on prevailing laws, regulations, and standards.
395.	a. The Proposer shall provide a means to shut off the Reader or individual Components and Modules so personnel may service the Reader or those Component and Modules in a safe manner.
	b. The Proposer shall describe the means to shut off the Reader or individual Components and Modules.
396.	a. The Proposer shall provide the Material Safety Data Sheet for any materials or equipment utilized within the Reader or any supplied product that has a Material Safety Data Sheet.
	b. The Proposer shall provide any information regarding any other materials that may be considered hazardous or require special handling or disposal.

397.	The Proposer shall describe any potential hazards to drivers, toll collectors, or other people from incorrectly installed or malfunctioning Readers.
398.	The Proposer shall include radio frequency power density required by its Proposed Equipment in its Proposal. The radio frequency power limits shall at no time exceed the FCC requirements.
399.	a. The Proposer shall describe the RF power density emissions of its Reader, whether Transponder-Reader communications or any other RF communications needed by the Reader.
	b. The Proposer shall describe mounting locations for Components that produce RF emissions and the safety effects for drivers and workers.
	c. The Proposer shall describe Reader safeguards to prevent the Reader being inadvertently or intentionally adjusted to radiate power in excess of the restrictions described herein.

4.6.5 Life Expectancy

#	Requirement Text
400.	a. Reader Components shall be designed and built to operate as specified for a minimum of fifteen (15) years.
	b. The Proposer shall provide the life expectancy of all components with sufficient calculations, test results, and operational deployment data to substantiate its claims. Calculations on Reader life expectancy and failure rates shall be performed in accordance with MIL-HDBK-217F February 28, 1995.

4.6.6 Reliability

#	Requirement Text
401.	The Mean Time Between Failures (MTBF) for single lane failures shall be 30,000 hours, where a single-lane failure is considered any situation where the Reader is incapable of toll collection or traffic management functions for a single lane in a toll plaza or lane-equivalent in an open road tolling environment.
402.	The MTBF for multi-lane failures for single readers that support multiple lanes shall be 300,000 hours, where a multi-lane failure is considered any situation where the Reader(s) is(are) incapable of toll collection or traffic management functions for more than one lane in a toll plaza or more than one lane-equivalent in an open road tolling environment.
403.	a. The Proposer shall identify individual predicted MTBFs for the overall Reader and for each subsystem, assembly, and component used in the Reader for all Reader configurations being offered.

	b. The Proposer shall identify the methods used to achieve the MTBF such as the use of redundancy, high quality components, or rigorous testing.
	c. The Proposer shall provide the calculations and details on how it arrived at the MTBF for each subsystem, assembly, and component. MTBF shall be calculated in accordance with MIL-HDBK-217F or Telcordia SR-332, Issue 4 with the expectation that the Reader shall be operated continuously at 24 hours per day, 7 days per week.
	d. Proposers shall provide supporting demonstrated MTBF figures from existing installations.

4.7 Reader Warranty

#	Requirement Text
404.	a. Vendor shall provide a one (1) year warranty on the Reader beginning the date the Reader is delivered to the E-ZPass Group Member's designated delivery location. Refer to Part V: Terms & Conditions, Article 7. Risk of Loss, Liability, Indemnification and Warranties. b. This warranty shall include the repair or replacement of any Reader or Reader Component not functioning for any reason during the warranty period. c. Any Readers or Reader Components repaired or replaced under warranty shall also have a one (1) year warranty from the date the repaired or replaced Reader or Reader Component was delivered to the E-ZPass Group Member's designated location.
405.	a. All warranty repairs and replacements for Readers and Reader Components under Part V: Terms & Conditions, Article 7.04(a) shall be completed and returned in accordance with the tiers below. • Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of notification from the E-ZPass Group Member; ○ Cross-shipment may be used where a good part is shipped upon order receipt while the Member returns the malfunctioning part; and ○ Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day. • Tier 2 – Normal Priority: Part repaired and returned to the E-ZPass Group Member within five (5) Business Days of receipt from the E-ZPass Group Member. b. For Tier 1 repairs, the Vendor shall submit a price for this option at the time of the request by the Member. c. Tier 2 shall be the default tier for handling repairs and warranty replacements. d. An E-ZPass Group Member shall have the option for emergency part repairs under warranty which shall consist of expedited repairs or replacement and overnight shipping. The Vendor shall submit a price for this option upon request by the Member for emergency repairs.

406.	An E-ZPass Group Member may provide Notice to the Vendor of the potential existence of a Pervasive Defect and for the Vendor to investigate in accordance with Article 7.06, Defects, should the following situations occur: • Ten percent (10%) of Readers as a whole fail while under warranty where a Member has more than twenty (20) Readers under warranty; • Ten percent (10%) of the same Reader Module fail while under warranty where a Member has more than twenty (20) of that Reader Module under warranty; • Two (2) Readers as a whole fail while under warranty should the Member have fewer than twenty (20) Readers under warranty; and • Two (2) of the same Reader Module model fail while under warranty where a Member has more than twenty (20) of that Reader Module under warranty.
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4.8 Reader Security

#	Requirement Text
407.	a. The Proposer shall describe measures implemented by the Reader to detect and prevent tampered, cloned, or otherwise “spoofed” Transponders. b. The Proposer shall indicate if these measures require specific Transponder and/or lane/zone controller functionality. c. The Reader shall be capable of meeting all performance and other requirements whether or not such measures are enabled by the Reader or supported by the Transponders in that toll environment.
408.	a. The Proposer shall describe all known incidents of successful and unsuccessful compromises of their Reader, including a description of the measures taken as a result. b. The Vendor shall have an ongoing obligation to provide Notice to the E-ZPass Group Members of any known incidents of compromises of their Readers during the contract term.
409.	The Reader should have the capability to integrate with directory services to allow network management and user account integration with the E-ZPass Group Member’s network services, such as Microsoft Active Directory or other LDAP services.
410.	The Proposer shall describe the ability to manage network security features on the Reader as well as integrate with existing network security devices.
411.	The Proposer shall describe any Reader security features that help prevent network attacks on the Reader or using the Reader to participate in network attacks, such as viruses, denial-of-service, and ransomware.
412.	The Proposer shall describe any Reader security features that may prevent the upload of malware to the Reader via local, diagnostic, or other ports.

4.9 Reader Certification

Reader Certification is required to demonstrate the ability of the proposed Reader to comply with the technical requirements and with the Proposer’s performance claims, and to operate without any

impact on the performance of the existing E-ZPass installations and customers equipment. Successful completion of Certification requirements is necessary in order to be formally approved by the E-ZPass Group for Purchase Orders, as described in Part I, Section 3 of this RFP.

4.9.1 General Requirements

#	Requirement Text
413.	a. Proposed Readers that pass Proposal evaluation are required to be certified in the following areas: 1) Environment, 2) Regulatory, 3) Protocol, and 4) Operation.
	b. The E-ZPass Group may require additional testing based on the Reader's features and functionality in order to be certified.
414.	a. Proposed Readers that have been previously approved for use by the E-ZPass Group may have portions of Certification waived based on the scope of prior testing and documentation.
	b. Readers that have not been previously approved shall be subject to the full scope of Certification.
	c. The scope of Certification for a proposed Reader is at the sole discretion of the E-ZPass Group.
415.	a. If the Proposer's documentation is inadequate to substantiate compliance with any Certification area, the E-ZPass Group may direct additional testing or other efforts to demonstrate compliance.
	b. For Environment, Regulatory, or Protocol certification, this shall be completed with test report or other documentation submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
416.	a. If additional testing is required, the Proposer shall submit a test plan to the E-ZPass Group, which shall include the test scripts, procedures, test equipment, and lab, or organization conducting the test prior to conducting the test.
	b. The Proposer shall not conduct the test until the test plan has been approved by the E-ZPass Group.
417.	a. Proposer shall setup and conduct all tests, demonstrations, licensing, and other efforts required for Certification as defined in these Technical Requirements and as directed by the E-ZPass Group.
	b. All Proposer costs related to Certification (including, but not limited to planning, coordinating, reserving use of the test site(s), setup, conducting, reporting, dismantling, insurance, testing lab fees, regulatory certification fees, and licensing fees) are the Proposer's responsibility.

4.9.2 Environment Certification

#	Requirement Text
418.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with the applicable environmental requirements for the proposed Readers.

419.	Environmental documentation shall include test scripts, procedures, results, and reports and shall cover, but not be limited to, such items as:
	a. Operating temperature range;
	b. Relative humidity range;
	c. Operation in various forms of precipitation;
	d. Water and liquid resistance;
	e. Thermal shocks and gradients;
	f. Physical shocks and vibration;
	g. Electrostatic discharge resistance; and
	h. Mounting/attachment security and integrity.
420.	a. If the Proposer's documentation is inadequate to substantiate environmental compliance, the E-ZPass Group may direct additional environmental testing.
	b. This testing shall be completed with test report submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
421.	The Proposer shall submit a test plan to the E-ZPass Group for any additional environmental testing, which shall include the test schedule, test scripts, procedures, test equipment, and lab, or organization conducting the test.

4.9.3 Protocol Certification

#	Requirement Text
422.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with the governing standard for the three required protocols supported by the Reader and any additional protocols offered by the Proposer.
423.	Readers supporting the 6C protocol shall be certified by OmniAir Certification Services (OCS) for 6C Interoperability.
424.	For Readers supporting TDM or SeGo protocols, the Proposer shall provide documentation detailing the protocol compliance testing performed on the Readers to include:
	a. Tests performed and test scripts;
	b. Results of each test;
	c. Test equipment, configuration, and equipment tuning, such as for Transponders or other devices used to interact with the Reader;
	d. Data collection process and equipment;
	e. Anomalies and errors that occurred during the test with investigative results; and
	f. Final test reports.
425.	a. If the Proposer's documentation is inadequate to substantiate protocol compliance, the E-ZPass Group may direct additional protocol testing.

	b. This testing shall be completed with test report submitted and approved by the E-ZPass Group before Validation Testing may be conducted.
426.	The Proposer shall submit a test plan to the E-ZPass Group for any additional protocol testing, which shall include the test scripts, procedures, test equipment, and lab, or organization conducting the test.

4.9.4 Regulatory Certification

#	Requirement Text
427.	The Proposer shall submit documentation as part of the Certification process to substantiate compliance with regulations applicable to the Reader.
428.	The Proposer shall submit the Reader's FCC certification.
429.	The Proposer shall submit documentation substantiating Reader compliance with FCC regulations on human exposure to radio frequency electromagnetic fields at typical distances between humans and Readers (including antennas), such as toll collector to antenna mounting locations.
430.	If the Proposer's documentation is inadequate to substantiate regulatory compliance, the E-ZPass Group may direct additional documentation or testing. This shall be completed with documentation submitted and approved by the E-ZPass Group before Validation Testing may be conducted.

4.9.5 Operational Certification

#	Requirement Text
431.	To obtain Operational Certification, the Proposer shall conduct Validation Test(s) to substantiate operational claims for the Proposed Readers unless otherwise waived by the E-ZPass Group such as for previous testing conducted for E-ZPass Group approval.
432.	a. All Validation Tests shall be observed by E-ZPass Group staff or designees, unless otherwise exempted by the E-ZPass Group.
	b. Given limited staff available for test observation and anticipated test load, all test scheduling shall be coordinated with the E-ZPass Group and test dates shall be subject to E-ZPass Group approval.
433.	a. For the purposes of Operational Certification, a proposed Reader consists of a specific Reader Unit configuration with specific Modules and a specific Antenna model. Cables and Accessories may vary by installation.
	b. Updates and modifications to a Reader throughout the contract may require new or additional Validation Testing at the determination of the E-ZPass Group.

	c. The Proposer may request that all or parts of Validation Testing be waived for a new or updated Reader model should the differences not impact the area covered by the Validation. For example, if the only difference between two models is that one has an Ethernet connection for lane/zone controller communications and another model has a serial port, the Proposer may request that the performance portion of the Validation Testing be waived subject to the condition that the change communications port will have no impact on the areas of certification. The Proposer will need to justify and provide data to support its request.
434.	The Proposer shall submit a Validation Test Plan for E-ZPass Group approval. The test plan shall include:
	a. Testing philosophy and methodology;
	b. Organization chart identifying positions and personnel, and position descriptions;
	c. Test site setup and configuration;
	d. Data collection process and equipment;
	e. Proposed schedule;
	f. Reader, Reader configuration, and tuning approach for each test site and test environment.
	g. Test scripts. For the performance test, this shall include vehicle descriptions, Readers used, and number of iterations and transactions; and
	h. Documentation, prioritization, and categorization of anomalies and tracking their resolution and closure. The E-ZPass Group shall have the right to determine the final severity categorization of any anomaly.
435.	a. The typical test cases are provided in Attachment 4 - E-ZPass Group Test Plan. The test cases may be adapted based on test site capabilities and are subject to E-ZPass Group approval.
	b. Test case names provide the following attributes for the case: • Speed – Gated (full stop at real or simulated gate) to 85 MPH; • Action – Acceleration, deceleration, braking followed by acceleration, passing, simulated manual interaction at tollbooth; • Number of Vehicles Abreast – one to four; • Lane Position for ORT – Travel/striped lanes if not otherwise indicated in the title, straddle lanes, mixed lanes with vehicles in both travel and straddle lanes, changing lanes.
	c. Attachment 4– E-ZPass Group Test Plan provides the typical mix of vehicle types used for testing with special vehicle types like a box truck or bus reserved for a subset of the test cases.
	d. The test cases also identify a mix of transponder form factors to use.
436.	a. The Validation Test shall be conducted in a multi-protocol operational environment.

	b. Each vehicle shall be equipped with transponder(s) supporting each of the TDM, SeGo, and 6C protocols as described in the Attachment 5 - Transponder and Reader Protocol Specifications.
	c. The Validation Test Plan shall list the transponders to be used for testing, subject to E-ZPass Group approval.
	d. The transponders used may be multi-protocol and/or single protocol.
437.	a. The Validation Test shall include testing that the Reader meets any additional proposed features and functionality.
	b. The E-ZPass Group may require that the testing demonstrate no performance degradation when used, depending on the nature of the feature or functionality.
	c. This testing may be conducted in plaza, open road, or lab environments, subject to E-ZPass Group approval.
438.	a. The Proposer shall propose test site(s) for conducting the Validation Test.
	b. For plaza testing, the test site shall have at least three (3) toll lanes with sufficient structures (booths, canopy, etc.) to simulate a plaza environment.
	c. For open road testing, the test site shall have at least four (4) 12-foot travel lanes.
439.	The Proposer shall submit the Validation Test Plan after notification that their proposed Reader(s) has passed Proposal Evaluation.
440.	a. The Proposer shall submit a Validation Test Report upon completion for E-ZPass Group approval.
	b. The Report shall include the actual environment and equipment used for testing, test conducted, results, anomalies, and investigation for the cause of each anomaly.
441.	a. The E-ZPass Group will review the Validation Test Report and provide feedback to the Proposer if the Reader passed the Validation Test or it requires retesting in part or in whole.
	b. The Proposer shall be responsible for all activities related to the conduct of any retests.

4.10 Reader Orders and Delivery

The Proposer shall provide details on how they shall meet the Requirements of this section.

Notes regarding Reader Orders:

- Orders under a contract resulting from this RFP will be submitted separately by each E-ZPass Group Member at such times as Readers are desired as described in Part I of this RFP.
- Each order will include: description and quantity of Readers; a Purchase Order number; the delivery location; and the desired delivery date.
- E-ZPass Group Members will work with each other and the Vendor to mitigate large variations in month-to-month delivery requests ("level-loading").

Vendor will provide delivery timing for Readers with its Price Proposal. Stated delivery time will not apply to delivery of the first order for each model of Reader due to the requirement for Factory Testing (Part III: Technical Requirements, Section 4.11 Reader Factory Testing). Expedited delivery may be requested by an E-ZPass Group Member. Vendor shall respond

promptly (within 3 business days) to such a request indicating if the requested delivery is possible. The direct costs for expedited delivery will be the responsibility of the E-ZPass Group Member requesting the service.

#	Requirement Text
442.	Readers shall comply with any and all current U.S. and international safety standards to permit unrestricted shipment by mail and commercial carriers with appropriate documentation and in the recommended shipping boxes.
443.	Each Reader shipment shall have a barcode marked packing slip and exterior identification with the Reader serial numbers for inventory tracking.
444.	a. If Readers and its Components are shipped in multiple boxes, each box shall have exterior labeling to identify the contents of the box. The packing slip for the shipment shall also indicate the boxes shipped and contents of each box.
	b. Delivery shall occur at the E-ZPass Group Member's specified location during business hours.
445.	If Vendor fails to deliver Readers in accordance within the agreed upon time period, the Vendor shall pay as liquidated damages five percent (5%) of the retail value of Readers overdue for each calendar day (Limit 100% of the retail value of Transponder Programmers overdue).

4.11 Reader Factory Testing

This testing is subsequent and additional to Validation Testing that is required during the Proposal Evaluation period.

The Proposer shall provide details on how it will meet the Requirements of this section.

#	Requirement Text
446.	a. Vendor shall conduct First Article Factory Testing on the Reader from the production environment prior to delivery of the first order for each model of Reader proposed. First Article Factory Testing shall demonstrate that production Readers are physically and operationally consistent with the Readers submitted for Validation Testing and these Technical Requirements.
	b. Vendor shall submit its First Article Factory Testing plan for approval by E-ZPass Group Members prior to conducting the test.
	c. Proposer shall provide a description of its First Article Factory Testing process for Reader, and a copy of a typical factory testing certification statement that would be provided.
447.	The Proposer may request First Article Factory Testing be limited to a new Component should the other Reader Components have previously passed First Article Factory Testing which is subject to E-ZPass Group review and approval. For example, a Reader with an updated Ethernet communications module may only require testing focused on the new module if there is no change to any other part of the Reader.
448.	a. Proposer shall provide a description of its ongoing Factory Testing process for Readers, and a copy of a typical factory testing certification statement that would be provided.

	b. Vendor shall notify E-ZPass Group Members of any changes to the originally proposed Readers during the Contract Term.
449.	E-ZPass Group Members may request that the new or revised product undergo Validation Testing and/or First Article Factory Testing in order for the changed Reader to continue to be considered Certified and eligible for purchase orders.

4.12 Reader Delivery Testing

#	Requirement Text
450.	a. For any Reader or Reader Component order, the Reader or Reader Component may be lab tested (at the E-ZPass Group Members' expense) to ensure that it is operationally consistent with previously delivered Readers.
	b. Any Reader failing testing shall be replaced at Vendor's expense at the E-ZPass Group Member's sole discretion. A Reader is considered as failed if it cannot meet a performance requirement in enough transactions for an 80% confidence or if it fails any functional requirement.
	c. E-ZPass Group Members will provide the supporting test documentation.

4.13 Reader Disposal

#	Requirement Text
451.	If there are environmental restrictions on disposal of any type of supplied Reader or equipment provided in response to this RFP, Proposer shall document the proper disposal procedures and the reason for the restrictions.

4.14 Documentation

#	Requirement Text
452.	The Vendor shall provide documentation for its Reader to include, but not be limited to: a. Drawings of the Reader, Components, and typical installations in toll plaza, city street and ORT environments as appropriate to the Reader type; b. Installation Manual; c. Operating Instructions; d. Configuration and Software Maintenance Manual; and e. Hardware Maintenance Manual.
453.	a. The Hardware Maintenance Manual shall permit properly trained technical personnel with reasonable general knowledge of electrical and computer hardware to operate, troubleshoot, diagnose, maintain, perform basic repair or replacement of the proposed Reader.
	b. The Hardware Maintenance Manual shall include the following topics at a minimum: i. General Reader overview and theory of operation;

	ii. Preventive maintenance schedules and procedures;
	iii. Corrective maintenance procedures;
	iv. Calibration, test and troubleshooting procedures;
	v. Equipment diagrams, layouts, and schematics; and
	Parts list required to service each Reader Component.
454.	a. The Vendor shall provide a secure site for the download of all current and historical versions of Reader documentation by E-ZPass Group Members for all Reader Models and options offered during the term of the contract.
	b. The Vendor shall maintain the site during the contract and shall provide a full set of document to the E-ZPass Group for hosting/distribution following completion of the contract term.
	c. Any updates to documentation after contract completion that are due to E-ZPass Group shall be provided to the E-ZPass Group for hosting.
455.	The Vendor shall have a process or mechanism in place to notify E-ZPass Group Members when changes to the documentation or updated versions are available.
456.	The Vendor shall provide the option to E-ZPass Group Members to order a CD or hardcopy version of each document.

4.15 Contract Management

#	Requirement Text
457.	a. During the Contract Term, the Vendor shall provide the E-ZPass Group Technology Manager with a monthly status report broken out by E-ZPass Group Member, including as a minimum a) Orders received; b) Deliveries made; c) Current backlog; d) Schedule for delivery of backlog; and e) Returns (RMA) – quantity and reason.

4.16 Multi-Protocol Value Reader

A low-cost Multi-Protocol Reader for applications such as parking systems may be proposed in addition to the full capability Multi-Protocol Reader. This “Value Reader” may have reduced functionality and performance that is consistent with the needs of these types of applications in order to provide a lower cost.

The Proposer shall provide details on how its Value Reader(s) meet the Requirements of this section should one be offered.

Within this section, the term “Multi-Protocol Reader” refers to the Reader providing full performance and capability in toll environments. The term “External Host Computer” refers to the controlling system for the Value Reader, which may be a lane controller or other device depending on application.

#	Requirement Text
458.	a. The Proposer shall describe the functions, performance, and features of the Value Reader in a manner that facilitates comparison with the requirements for the Multi-Protocol Reader.

	b. The Value Reader does not have to meet all of the requirements of the Multi-Protocol Reader except as described in this section.
459.	a. The Value Reader shall be designed to operate in a single lane environment at a minimum.
	b. The Proposer shall describe the functionality provided, limitations and number of lanes that can be covered by its Value Reader solution.
460.	a. Value Readers shall support the following protocols at a minimum: TDM, SeGo, and 6C, to include read/write capability.
	b. The Proposer shall identify any additional protocols supported by the Value Reader.
461.	a. Value Readers shall be capable of operating with a single protocol or any combination of protocols.
	b. The Proposer shall describe the configurability and prioritization of protocols by the Value Reader.
462.	a. The Value Reader interface to the External Host Computer should be similar to the Multi-Protocol Reader's interface with the lane/zone controller.
	b. The Proposer shall describe the Value Reader communications protocol and note any differences with the Multi-Protocol Reader version, to include fields, data ranges, and message timing.
463.	The Value Reader shall provide at least one (1) RS-232, RS-422, or Ethernet port.
464.	a. The Value Reader shall be capable of saving transactions and error messages.
	b. The Proposer shall provide the number of transactions and error messages stored. E-ZPass Group Members prefer a minimum of 2,000 transactions and error messages.
	c. The Proposer shall describe the handling of new transaction and error messages if the memory is filled.
465.	a. The Value Reader should be capable of retaining toll transactions in memory for at least twenty-four (24) hours after power is removed from the Reader.
	b. The Value Reader should be capable of expansion to retain data for longer periods.
	c. The Proposer shall describe their minimum data storage and options available for extending data retention after power loss.
	d. The Proposer shall describe the minimum data retention time after power failure, the means for retaining that data, and any long-term maintenance requirements to maintain that capability, such as periodic battery replacement.
466.	The Value Reader may be installed in a variety of environments similar to toll lane and open road tolling installations but may often be more space-limited. The Proposer shall describe the installation/location limitations for the Value Reader.
467.	While E-ZPass Group Members prefer that the Value Reader meet the NEMA TS-2 standard for temperature, humidity, vibration, and shock, it is not required. The Proposer shall identify any limitations in the Value Reader's ability to meet the NEMA TS-2 standard.
468.	a. The Value Reader shall operate from a single 95 V to 135 V, 60 ±2 Hz, unconditioned power connection.

	b. The Proposer shall describe any power protection provided by the Value Reader.
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4.17 Additional Reader Capabilities

#	Requirement Text
469.	While the proposed Readers shall meet the requirements described herein, it is recognized that proposed Readers may have additional capabilities that could be of benefit to the E-ZPass Group Members. The Proposer shall describe any additional features offered by its proposed Readers.

5 New Multi-Protocol Reader Support Services

The Proposer shall provide the following Reader Support Services for the duration of the contract term for each proposed Reader that is approved for purchase by the E-ZPass Group. E-ZPass Group Members may choose to exercise any of the Reader Support Services for any portion of the Contract term. The Proposer shall provide details on how it will meet the Requirements of this section.

5.1 Equipment and Spare Parts

#	Requirement Text
470.	a. The Proposer shall provide Reader spare parts for the term of this contract.
	b. The Proposer shall submit a parts list as part of its Price Proposal, identifying the field-replaceable parts and modules used by its Reader.
	c. The parts list shall include Part Description, Model Number (if any), Vendor and Original Equipment Manufacturer (where applicable) part number and part price by the following tiers that an E-ZPass Group Member shall select upon ordering the part:
	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of order from the E-ZPass Group Member;
	ii. Tier 2 – Normal Priority: Part received by the E-ZPass Group Member within five (5) Business Days of order from the E-ZPass Group Member; and
	iii. Tier 3 – Low Priority: Part received by the E-ZPass Group Member within fifteen (15) Business Days of order from the E-ZPass Group Member.
	d. Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
471.	a. The Reader spare and replacement parts, components, and equipment purchased from the Proposer shall be new, unused items and not refurbished unless specifically authorized by the ordering E-ZPass Group Member.
	b. The Proposer shall document all incoming parts, components, and equipment by make, model, series number, serial number, manufacturers name, seller's name and date received.

	c. The Proposer shall inspect all incoming materials prior to use to determine if any items are defective or damaged.
	d. Defective or damaged items received by the E-ZPass Group Member shall be returned to the Proposer for replacement at no expense to the E-ZPass Group Member.
472.	a. If the Proposer receives notification from a component source that the source has discontinued carrying the item, or that the source has been acquired by another source, the Proposer shall notify the E-ZPass Group Members in writing of such within fourteen (14) Business Days.
	b. The Proposer shall also provide an assessment on the impact on any parts, timeframe for continuing to order the current part before potential non-availability, and available alternatives should there not be a substitute that will allow the Reader to meet its original performance requirements.
473.	a. Vendor shall notify E-ZPass Group Members of any changes to the Reader parts during the Contract Term. Changes requiring notification shall include, but not be limited to, new or different components, different component values such as a change in resistance, capacitance or inductance, revised board layouts, and a new component supplier.
	b. E-ZPass Group Members may request that the new or revised product undergo all of or a portion of Validation Testing and/or First Article Factory Testing.
474.	The non-expendable spare and replacement parts, components, and equipment shall meet the Life Expectancy requirements of Section 4.6.5.
475.	a. Vendor shall provide a one (1) year warranty on spare parts, with the warranty beginning the date the part is delivered to the E-ZPass Group Member's designated delivery location. Refer to Part V: Terms and Conditions, Article 7.04 Warranties.
	b. Any parts repaired or replaced under warranty shall also have a one (1) year warranty from the date the repaired or replaced part was delivered to the E-ZPass Group Member's designated location.
476.	a. All warranty repairs and replacements for spare parts under this Article 7.04(a) shall be completed and returned in accordance with the tiers below.
	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of notification from the E-ZPass Group Member; • Cross-shipment may be used where a good part is shipped upon order receipt while the Member returns the malfunctioning part; and • Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
	ii. Tier 2 – Normal Priority: Part repaired and returned to the E-ZPass Group Member within five (5) Business Days of receipt from the E-ZPass Group Member.
	b. For Tier 1 repairs, the Vendor shall submit a price for this option at the time of the request by the Member.
	c. Tier 2 shall be the default tier for handling repairs and warranty replacements.

	d. An E-ZPass Group Member shall have the option for emergency part repairs under warranty which shall consist of expedited repairs or replacement and overnight shipping. The Vendor shall submit a price for this option upon request by the Member for emergency repairs.
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5.2 Calibration Services

#	Requirement Text
477.	a. The Vendor shall provide Calibration Services for the Reader.
	b. These Services shall be supplied on an as needed time and materials basis for new and existing lanes.
478.	a. The Proposer shall describe their calibration process, including typical time and resources to tune a traditional toll lane and an open road tolling lane.
	b. The Proposer shall describe which resources that they will provide as part of the service and which are expected to be provided by the E-ZPass Group Member.
479.	a. Prior to the commencement of any Calibration Service, the Vendor will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.
	b. The scope of work and the estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the scope and/or estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Vendor cost.
480.	a. The calibration will consist of a series of tests that prove the Equipment's ability to function as prescribed by the Vendor.
	b. The Vendor shall assist the E-ZPass Group Member in developing procedures for the series of tests.
481.	Elements of the Calibration Services shall include but not be limited to the following:
	a. Proper power isolation and connectivity;
	b. Point to point data continuity;
	c. Calibration of signal (RF or other) to Vendor's specifications;
	d. Processing of actual data from the Reader; and
	e. Interface with the lane/zone controller for data acceptance and processing.
482.	The calibration test process will ensure multiple objectives including but not limited to the following:
	a. The Reader is installed to the Vendor's specifications;
	b. All cable and interface points have been terminated to the correct locations and properly labeled;

	c. The equipment can be safely energized; and
	d. The equipment can process data as intended.
483.	At the E-ZPass Group Member's request as part of the Calibration Service, the Vendor shall prepare any applicable license applications to be submitted by the E-ZPass Group Member for the location of each installation.

5.3 Software Maintenance Services

#	Requirement Text
484.	The Vendor shall provide Software Maintenance Services as described herein at no additional cost for to E-ZPass Group Members during the contract term and through the warranty period of the last item purchased during the contract term:
	a. Release notes to the E-ZPass Group Members prior to making any software changes or upgrades;
	b. Configuration management of software versions that are to be utilized;
	c. Routine monitoring of the software to verify functionality;
	d. Software adjustments in order to fine tune the solution to meet or better meet the performance requirements; and
	e. Entitlement to all generally available Software updates, including patches, maintenance releases, new releases of the Software and any subsequent product offerings issued as successors to the Software that are develop for the product for E-ZPass Group or for any other customer of that device.

5.4 Depot Repair Services

#	Requirement Text
485.	a. The Proposer shall make available Depot Repair Services for all parts provided in its Part List for the Equipment and Spare Parts service to E-ZPass Group Members for the repair of out-of-warranty Reader parts.
	b. The Proposer shall offer three tiers of Depot Repair Services for each component:
	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of order from the E-ZPass Group Member;
	• Cross-shipment may be used where a good part is shipped upon order receipt while the Member returns the malfunctioning part; and • Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
	ii. Tier 2 – Normal Priority: Part repaired and returned to the E-ZPass Group Member within five (5) Business Days of receipt from the E-ZPass Group Member; and
	iii. Tier 3 – Low Priority: Part repaired and returned to the E-ZPass Group Member within fifteen (15) Business Days of receipt from the E-ZPass Group Member.

486.	a. Prior to the commencement of any Depot Repair Service, the Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.
	b. The cost estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.
487.	The Proposer shall provide a one (1) year warranty for any Depot Repair beginning the date the part is delivered to the E-ZPass Group Member's designated delivery location. Refer to Part V: Terms and Conditions, Article 7.04 Warranties
488.	a. All repairs or replacements for parts under Depot Repair warranty under this Article 7.04(a) shall be shipped within three (3) Business Days of the E-ZPass Group Member's written notification to the Vendor of Equipment requiring warranty work.
	b. The Vendor shall use a two-day shipping service for the part.
	c. An E-ZPass Group Member shall have the option for emergency part repairs under warranty which shall consist of expedited repairs or replacement and overnight shipping. The Vendor shall submit a price for this option upon request by the Member for emergency repairs.

5.5 Time & Material Maintenance Services

#	Requirement Text
489.	a. The Proposer should make available and provide Services and materials to the E-ZPass Group Member on an as-needed and requested basis at a time and materials rate for the performance of Reader maintenance.
	b. Services shall be available for both standard and off hour basis. Standard hours are defined as 8:30AM to 5:30PM ET for all Business Days.
	c. Response time for time & materials Services shall be two (2) Business Days measured when the E-ZPass Group Member requests such Services from the Proposer.
490.	a. Prior to the commencement of any work, the Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.
	b. The scope of work and the estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the scope and/or estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.

491.	a. The Proposer shall have available resources that are both knowledgeable with regard to the equipment being installed and in the area of Electrical installations in a live toll collection environment.
	b. Electrical Support Services shall include support to the E-ZPass Group Member for design of installation and testing of power, wiring, cabling and fiber required for the proposed Reader.
492.	a. The Proposer shall have available resources knowledgeable in the area of Structural Engineering.
	b. The Proposer shall support the E-ZPass Group Member to ensure that any structure to be erected or equipment mounting is engineered to maintain its position of placement, support the equipment mounted on the structure, and resist environmental conditions.
	c. The Proposer shall be capable of assisting in all required studies and surveys performed in order to determine the requirements for erecting a structure and/or mounting the Reader.
493.	The Proposer shall have available resources knowledgeable in the system software and any associated applications. Typical Software Engineering Support may be required for areas of software including communication protocols, equipment interfaces and timing algorithms and integration of the Reader to lane/zone controllers.
494.	The Proposer shall have available resources knowledgeable in the system hardware. Typical Hardware Engineering support may be required for areas including hardware installation and integration of the Reader to lane/zone controllers.
495.	a. The Proposer shall have available resources knowledgeable in the System Operation and Maintenance requirements for the purpose of training personnel of the E-ZPass Group Member and other parties designated by the E-ZPass Group Member.
	b. Training shall be available for general support and both specialized “train the trainer” or specific operations and maintenance personnel.
496.	The Proposer shall have available maintenance technicians capable of performing the various troubleshooting, corrections and replacement procedures for all Reader components.
497.	The Proposer shall have available support personnel to assist the E-ZPass Group Member, or E-ZPass Group Member-specified third-party maintenance vendor, in all general and corrective maintenance Services.

5.6 Remote Support Services

#	Requirement Text
498.	a. The Proposer shall provide Remote Support for their equipment on a twenty-four (24) hour a day, seven (7) day per week, year-round basis to E-ZPass Group Members at no additional cost.
	b. All E-ZPass Group Member requests, other than requests made pursuant to subparagraph (d) of Article 7.05, Software Warranties, in Part V, for remote support shall be responded to with a remedy or proposed action plan within a 24 hour period of the inquiry.
499.	a. Remote support shall include domestic U.S. based staffed telephone support either live or on-call and include email and online chat capability.

	b. The Proposer shall adequately staff any hotlines to handle all calls from all E- ZPass Group Members.
500.	a. The Proposer shall describe its ability to support remote reader diagnostics via a VPN connection.
	b. The Proposer shall identify the typical requirements needed from the E-ZPass Group Member to provide this remote support capability such as VPN tokens, software, user accounts, and IT or other security approvals.

6 New Multi-Protocol Reader Annual Maintenance Services

If the Proposer is offering an Annual Maintenance Services option for its Readers, Proposer shall respond the requirements in this section.

#	Requirement Text
501.	a. The Proposer should offer annual subscription-based Annual Maintenance Services as described in this section to the E-ZPass Group Members, with a variety of coverage options.
	b. Pricing schedules shall be on a one plaza, one lane or other unit basis and with an escalator for each additional plaza, lane, or unit.
	c. The Proposer shall provide separate pricing for traditional lanes and for open road tolling lanes.
	d. Repair times shall be measured from the Member's submission of the request and adjusted for lane unavailability restrictions (e.g., access to lanes).
	e. As options for these services, Proposers shall provide a variety of coverage options that include repair times from 4 hours to 12 hours, and periods of availability of services from 24/7 through 16 hours (5AM to 9PM local time of the Operator per day), 7 days per week to 24 hours a day, 5 days per week.
502.	The Proposer shall maintain the Reader(s) purchased, including but not limited to all licensed internal code and firmware, in good condition and working order and in conformity with the specifications set forth in this Agreement.
503.	a. The Proposer shall offer a program of preventive maintenance Services with respect to the Reader on a scheduled basis, such schedule to be based upon the particular Service required to maintain each individual item of the Reader to the standards set forth in this Agreement.
	b. The Proposer shall describe such programs for toll plaza and open road tolling environments in its Proposal.
504.	Diagnostic Services to be provided shall consist of:
	a. Reviewing diagnostic and failure data messages;
	b. Analyzing the diagnostic messages;
	c. Immediate analysis of abnormal conditions and failures by skilled technical personnel;
	d. Formulation of an action plan; and
	e. Initiation of remedial services including locating and expediting components needed for the repair.

505.	a. The Proposer shall identify the Services that may be offered remotely and the requirements for providing that Service remotely.
	b. The Proposer shall comply with all remote access and network security requirements for E-ZPass Group Members who opt for Annual Maintenance Services.
506.	The Proposer shall provide adequate staffing levels to handle all maintenance demands from all E-ZPass Group Members to perform the Annual Maintenance Services.
507.	a. The Proposer shall provide remedial maintenance Services (which include repair and replacement of unserviceable parts) with respect to the Reader on an unscheduled basis.
	b. Such remedial maintenance Services shall be performed in accordance with this SOW.
508.	a. Replacement parts shall be provided by the Proposer and shall be either new parts or refurbished parts, equivalent in performance to new parts when used with the Reader.
	b. Parts removed from the Reader shall become the property of the Proposer once replacements have been accepted by the E-ZPass Group Member.
509.	The Proposer shall (i) assist in diagnosing and determining whether a problem is related to Software embedded in the Reader provided by the Proposer and (ii) assist the E-ZPass Group Member and its contractors in identifying the source of the problem.

7 Legacy Reader Support Services

A Proposer may bid on providing any of the following Legacy Reader Support Services for any or all of the following “Legacy Readers” during the contract term:

- Kapsch JANUS Multi-Protocol Reader
- Kapsch BADGER Reader
- TransCore Encompass 6

E-ZPass Group Members may choose to exercise any of the Legacy Reader Support Services for any portion of the Contract term. The Proposer shall identify the Legacy readers supported and provide details on how it will meet the Requirements of this section.

7.1 Equipment and Spare Parts

#	Requirement Text
510.	a. The Proposer shall provide Legacy Reader spare parts for the term of this contract.
	b. The Proposer shall identify the Legacy Readers covered and submit a parts list as part of its Price Proposal, identifying the field-replaceable parts and modules used.
	c. The parts list shall include Part Description, Model Number (if any), Vendor and Original Equipment Manufacturer (where applicable) part number and part price by the following tiers that an E-ZPass Group Member shall select upon ordering the part:
	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of order from the E-ZPass Group Member;

	ii. Tier 2 – Normal Priority: Part received by the E-ZPass Group Member within five (5) Business Days of order from the E-ZPass Group Member; and iii. Tier 3 – Low Priority: Part received by the E-ZPass Group Member within fifteen (15) Business Days of order from the E-ZPass Group Member. d. Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
511.	a. The Legacy Reader spare and replacement parts, components, and equipment purchased from the Proposer shall be new, unused items and not refurbished unless specifically authorized by the ordering E-ZPass Group Member. b. The Proposer shall document all incoming parts, components, and equipment by make, model, series number, serial number, manufacturers name, seller's name and date received. c. The Proposer shall inspect all incoming materials prior to use to determine if any items are defective or damaged. d. Defective or damaged items received by the E-ZPass Group Member shall be returned to the Proposer for replacement at no expense to the E-ZPass Group Member.
512.	a. If the Proposer receives notification from a component source that the source has discontinued carrying the item, or that the source has been acquired by another source, the Proposer shall notify the E-ZPass Group Members in writing of such within fourteen (14) Business Days. b. The Proposer shall also provide an assessment on the impact on any parts, timeframe for continuing to order the current part before potential non-availability, and available alternatives should there not be a substitute that will allow the Legacy Reader to meet its original performance requirements.
513.	Vendor shall notify E-ZPass Group Members of any changes to the Legacy Reader parts during the Contract Term. Changes requiring notification shall include, but not be limited to, new or different components, different component values such as a change in resistance or capacitance, revised board layouts, and a new component supplier.
514.	a. The non-expendable spare and replacement parts, components, and equipment shall be built to operate as specified for at least fifteen (15) years. b. The Proposer shall provide the life expectancy of non-expendable components when subcomponents are replaced with a new source with sufficient calculations, test results, and operational deployment data to substantiate its claims. Calculations on life expectancy and failure rates shall be performed in accordance with MIL-HDBK-217F February 28, 1995.
515.	a. Vendor shall provide a one (1) year warranty on spare parts, with the warranty beginning the date the part is delivered to the E-ZPass Group Member's designated delivery location. Refer to Part V: Terms and Conditions, Article 7.04 Warranties. b. Any parts repaired or replaced under this warranty shall also have a one (1) year warranty from the date the repaired or replaced part was delivered to the E-ZPass Group Member's designated location.
516.	a. All warranty repairs and replacements for Readers and spare parts under this Article 7.04(a) shall be completed and returned in accordance with the tiers below.

	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of notification from the E-ZPass Group Member; • Cross-shipment may be used where a good part is shipped upon order receipt while the Member returns the malfunctioning part; and • Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
	ii. Tier 2 – Normal Priority: Part repaired and returned to the E-ZPass Group Member within five (5) Business Days of receipt from the E-ZPass Group Member.
	b. For Tier 1 repairs, the Vendor shall submit a price for this option at the time of the request by the Member.
	c. Tier 2 shall be the default tier for handling repairs and warranty replacements.
	d. An E-ZPass Group Member shall have the option for emergency part repairs under warranty which shall consist of expedited repairs or replacement and overnight shipping. The Vendor shall submit a price for this option upon request by the Member for emergency repairs.

7.2 Calibration Services

#	Requirement Text
517.	a. The Vendor shall provide Calibration Services for the Legacy Reader.
	b. These Services shall be supplied on an as needed time and materials basis for new and existing lanes.
518.	a. The Proposer shall describe their calibration process, including typical time and resources to tune a traditional toll lane and an open road tolling lane.
	b. The Proposer shall describe which resources that they will provide as part of the service and which are expected to be provided by the E-ZPass Group Member.
519.	a. Prior to the commencement of any Calibration Service, the Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.
	b. The scope of work and the estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the scope and/or estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.
520.	a. The calibration will consist of a series of tests that prove the Equipment's ability to function as prescribed by the Proposer.
	b. The Proposer shall assist the E-ZPass Group Member in developing procedures for the series of tests.

521.	Elements of the calibration Services shall include but not be limited to the following:
	a. Proper power isolation and connectivity;
	b. Point to point data continuity;
	c. Calibration of signal (RF or other) to Proposer's specifications;
	d. Processing of actual data from the Legacy Reader; and
	e. Interface with the lane/zone controller for data acceptance and processing.
522.	The calibration test process will ensure multiple objectives including but not limited to the following:
	a. The Legacy Reader is installed to the Proposer's specifications;
	b. All cable and interface points have been terminated to the correct locations and properly labeled;
	c. The equipment can be safely energized; and
	d. The equipment can process data as intended.
523.	At the E-ZPass Group Member's request as part of the Calibration Service, the Vendor shall prepare any applicable license applications to be submitted by the E-ZPass Group Member for the location of each installation.

7.3 Depot Repair Services

#	Requirement Text
524.	a. The Proposer shall make available Depot Repair Services for all parts provided in its Part List for the Equipment and Spare Parts service to E-ZPass Group Members for the repair of out-of-warranty Legacy Reader parts.
	b. The Proposer shall offer three tiers of Depot Repair Services for each component:
	i. Tier 1 – Emergency Priority: Part received by the E-ZPass Group Member within forty-eight (48) hours of order from the E-ZPass Group Member;
	• Cross-shipment may be used where a good part is shipped upon order receipt while the Member returns the malfunctioning part; and • Orders must be made on a Business Day during the hours of 8:30 AM – 5:30 PM Eastern Time, with orders made during non-business hours treated as having been made at 8:30 AM on the next Business Day.
	ii. Tier 2 – Normal Priority: Part repaired and returned to the E-ZPass Group Member within five (5) Business Days of receipt from the E-ZPass Group Member; and
	iii. Tier 3 – Low Priority: Part repaired and returned to the E-ZPass Group Member within fifteen (15) Business Days of receipt from the E-ZPass Group Member.
525.	a. Prior to the commencement of any Depot Repair Service, the Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.

	b. The cost estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.
526.	The Proposer shall provide a one (1) year warranty for any Depot Repair beginning the date the part is delivered to the E-ZPass Group Member's designated delivery location. Refer to Part V: Terms and Conditions, Article 7.04 Warranties.
527.	a. All repairs or replacements for parts under Depot Repair warranty under this Article 7.04(a) shall be shipped within three (3) Business Days of the E-ZPass Group Member's written notification to the Vendor of Equipment requiring warranty work.
	b. The Vendor shall use a two-day shipping service for the part.
	c. An E-ZPass Group Member shall have the option for emergency part repairs under warranty which shall consist of expedited repairs or replacement and overnight shipping. The Vendor shall submit a price for this option upon request by the Member for emergency repairs.

7.4 Time & Material Maintenance Services

#	Requirement Text
528.	a. The Proposer should make available and provide Services and materials to the E-ZPass Group Member on an as-needed and requested basis at a time and materials rate for the performance of Legacy Reader maintenance.
	b. Services shall be available for both standard and off hour basis. Standard hours are defined as 8:30AM to 5:30PM ET for all Business Days.
	c. Response time for time & materials Services shall be two (2) Business Days measured when the E-ZPass Group Member requests such Services from the Proposer.
529.	a. Prior to the commencement of any work, the Proposer will provide a written scope of work detailing the task and a time and material estimate to complete the task in accordance with Article 10.02, Orders, in Part V.
	b. The scope of work and the estimate must be authorized in writing by the E-ZPass Group Member prior to the commencement of any work.
	c. Any changes to the scope and/or estimate shall be submitted to the E-ZPass Group Member and must also be authorized in writing.
	d. Labor will be billed at the hourly rates included in Appendix D-Equipment, Components, Services Listing and Pricing Schedule(s) and all materials will be billed to the E-ZPass Group Member at the Proposer cost.
530.	a. The Proposer shall have available resources that are both knowledgeable with regard to the equipment being installed and in the area of Electrical installations in a live toll collection environment.

	b. Electrical Support Services shall include support to the E-ZPass Group Member for design of installation and testing of power, wiring, cabling and fiber required for the Legacy Reader.
531.	a. The Proposer shall have available resources knowledgeable in the area of Structural Engineering.
	b. The Proposer shall support the E-ZPass Group Member to ensure that any structure to be erected or equipment mounting is engineered to maintain its position of placement, support the equipment mounted on the structure, and resist environmental conditions.
	c. The Proposer shall be capable of assisting in all required studies and surveys performed in order to determine the requirements for erecting a structure and/or mounting the Legacy Reader.
532.	The Proposer shall have available resources knowledgeable in the system software and any associated applications. Typical Software Engineering Support may be required for areas of software including communication protocols, equipment interfaces and timing algorithms and integration of the Legacy Reader to lane/zone controllers.
533.	The Proposer shall have available resources knowledgeable in the system hardware. Typical Hardware Engineering support may be required for areas including hardware installation and integration of the Legacy/Reader to lane/zone controllers.
534.	a. The Proposer shall have available resources knowledgeable in the System Operation and Maintenance requirements for the purpose of training personnel of the E-ZPass Group Member and other parties designated by the E-ZPass Group Member.
	b. Training shall be available for general support and both specialized “train the trainer” or specific operations and maintenance personnel.
535.	The Proposer shall have available maintenance technicians capable of performing the various troubleshooting, corrections and replacement procedures for all Legacy Reader components.
536.	The Proposer shall have available support personnel to assist the E-ZPass Group Member, or E-ZPass Group Member-specified third-party maintenance vendor, in all general and corrective maintenance Services.

7.5 Remote Support Services

#	Requirement Text
537.	a. The Proposer shall offer an annual subscription-based Remote Support service on a twenty-four (24) hour a day, seven (7) day per week, year-round basis to E-ZPass Group Members.
	b. All E-ZPass Group Member requests, other than requests made pursuant to subparagraph (d) of Article 7.05, Software Warranties, in Part V, for remote support shall be responded to with a remedy or proposed action plan within a 24 hour period of the inquiry.
538.	a. Remote support shall include domestic U.S. based staffed telephone support either live or on-call and include email and online chat capability.
	b. The Proposer shall adequately staff any hotlines to handle all calls from all E-ZPass Group Members.
539.	a. The Proposer shall describe its ability to support remote reader diagnostics via a VPN connection.

	b. The Proposer shall identify the typical requirements needed from the E-ZPass Group Member to provide this remote support capability such as VPN tokens, software, user accounts, and IT or other security approvals.
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7.6 Annual Maintenance Services

#	Requirement Text
540.	a. The Proposer shall offer annual subscription-based Annual Maintenance Services as described in this section to the E-ZPass Group Members, with a variety of coverage options. b. Pricing schedules shall be on a one plaza, one lane or other unit basis and with an escalator for each additional plaza, lane, or unit. c. The Proposer shall provide separate pricing for traditional lanes and for open road tolling lanes. d. Repair times shall be measured from the Member's submission of the request and adjusted for lane unavailability restrictions (e.g., access to lanes). e. As options for these services, Proposers shall provide a variety of coverage options that include repair times from 4 hours to 12 hours, and periods of availability of services from 24/7 through 16 hours (5AM to 9PM local time of the Operator per day), 7 days per week to 24 hours a day, 5 days per week.
541.	The Proposer shall maintain the E-ZPass Group Member's Legacy Readers, including but not limited to updating all licensed internal code and firmware released by the Legacy Reader manufacturer, in good condition and working order and in conformity with the specifications set forth in this Agreement.
542.	a. The Proposer shall offer a program of preventive maintenance Services with respect to the Legacy Reader on a scheduled basis, such schedule to be based upon the particular Service required to maintain each individual item of the Legacy Reader to the standards set forth in this Agreement. b. The Proposer shall describe such programs for toll plaza and open road tolling environments in its Proposal.
543.	Diagnostic Services to be provided shall consist of: a. Reviewing diagnostic and failure data messages; b. Analyzing the diagnostic messages; c. Immediate analysis of abnormal conditions and failures by skilled technical personnel; d. Formulation of an action plan; and e. Initiation of remedial services including locating and expediting components needed for the repair.
544.	a. The Proposer shall identify the Services that may be offered remotely and the requirements for providing that Service remotely. b. The Proposer shall comply with all remote access and network security requirements for E-ZPass Group Members who opt for Annual Maintenance Services.

545.	The Proposer shall provide adequate staffing levels to handle all maintenance demands from all E-ZPass Group Members to perform the Annual Maintenance Services.
546.	a. The Proposer shall provide remedial maintenance Services (which include repair and replacement of unserviceable parts) with respect to the Legacy Reader on an unscheduled basis.
	b. Such remedial maintenance Services shall be performed in accordance with this SOW.
547.	a. Replacement parts shall be provided by the Proposer and shall be either new parts or refurbished parts, equivalent in performance to new parts when used with the Legacy Reader.
	b. Parts removed from the Legacy Reader shall become the property of the Proposer once replacements have been accepted by the E-ZPass Group Member.
548.	The Proposer shall (i) assist in diagnosing and determining whether a problem is related to Software embedded in the Legacy Reader provided by the manufacturer and (ii) assist the E-ZPass Group Member and its contractors in identifying the source of the problem.

Part IV

Proposal Contents and Submission Format

Part IV: Proposal Contents and Submission Format

1. ANNUAL ENROLLMENT - Proposal Contents and Submission Format

1.1 General Instructions

The Annual Enrollment Proposal Contents and Submission Format is to be followed by Vendors who fall under Scenario 003 or Scenario 004, as outlined in RFP Part I Administrative, Section 2.22.

1.2 Proposal Format

The Technical and/or Price Proposal shall be submitted in a sealed envelope, which is clearly identified as follows:

Solicitation No. 2021-IAGNG-0001

E-ZPass ETC Equipment and Services Procurement

Vendor Corporate Name & Address

Vendor Contact Person, Phone Number, and Email

The RFP cover page indicates the two (2) Proposal delivery addresses. The difference between the two (2) addresses is as follows:

- 1) Delivery address for USB proposal submissions
 - a. The USB flash drive submissions for the written Technical and/or Price Proposals shall be mailed to this address.
- 2) Delivery address for physical transponder samples
 - a. The physical sample of each NEW transponder proposed shall be mailed to this address.

The Proposal submissions shall be on USB flash drives only, NO hard copies.

The Technical Submission shall consist of the following items:

- 1) One (1) electronic copy of the Technical Proposal on a USB flash drive. The electronic copy shall be provided in a searchable (NOT SCANNED) *.pdf format. Any Proposal Exhibits or information prepared either as graphics or with other programs shall be viewable in a *.pdf file without any software required for Proposal review.
- 2) A physical sample of each NEW transponder proposed. The transponder may be functional or non-functional in the Technical Proposal.
 - a. **NOTE 1:** If the new transponder proposed is already approved/certified by E-ZPass, a physical sample does not need to be provided.
 - b. **NOTE 2:** If the new transponder proposed has not been approved/certified by E-ZPass, a physical sample shall be provided and sent to the delivery address for physical transponder samples.

The Maximum Price Proposal Submission shall consist of the following:

One (1) USB flash drive with electronic copies. The file format of the electronic Pricing Forms shall be in both Microsoft Excel and *.pdf.

1.3 Technical Proposal Contents

Vendors that fall under Scenario 003 or Scenario 004 where a Technical Proposal submission is required,

their Technical Proposal must include the components outlined in one of the three sub-sections below.

For directions on what information to provide for each of the applicable components, reference Part IV, Section 2.3.1.1 – Section 2.3.1.6.

1.3.1 Technical Submission Components - for an Existing Vendor with Existing Equipment / Services that has had a Merger & Acquisitions (M&A) since the last Annual Enrollment submission.

1. Cover Sheet and RFP Document Acknowledgement
2. Cover Letter
3. Table of Contents
4. Proposal Summary
5. Corporate Experience and Capability

1.3.2 Technical Submission Components - for an Existing Vendor with newly added Equipment / Services

NOTE: For each of the five components outlined below, just address the newly added Equipment / Services.

1. Cover Sheet and RFP Document Acknowledgement
2. Cover Letter
3. Table of Contents
4. Proposal Summary
5. Technical Requirements (*with a Physical sample of ONLY the newly added Equipment / Services, unless already approved/certified by E-ZPass)

1.3.3 Technical Submission Components – for a New Proposer

1. Cover Sheet and RFP Document Acknowledgement
2. Cover Letter
3. Table of Contents
4. Proposal Summary
5. Corporate Experience and Capability
6. Technical Requirements (*with a Physical sample of ONLY the newly added Equipment / Services, unless already approved/certified by E-ZPass)

1.4 Maximum Price Proposal Contents

All Vendors that fall under Scenario 003 or Scenario 004 must submit a Price Proposal, even if the price is unchanged from the previous Annual Enrollment submission.

For directions on what information to provide in the Cover Letter and Pricing Forms, reference Part IV, Section 2.3.2.

1. Cover Letter
2. Pricing Forms

2. Responding to Initial RFP – Proposal Contents and Submission Format

2.1 General Instructions

The Initial RFP Proposal Contents and Submission Format is to be followed by Vendors who fall under Scenario 001 or Scenario 002, as outlined in RFP Part I Administrative, Section 2.22.

Proposals shall be prepared simply and economically, providing a straightforward, concise description of the Proposer's ability to meet the requirements of the RFP. Unnecessarily elaborate brochures, artwork, visual aids and other presentation aids beyond those sufficient to present a complete and effective response to this solicitation are neither necessary nor desired.

The Proposer must address all requirements as stated in Part III: Technical Requirements for the Equipment and Services being proposed. If the Proposer identifies that it is not in compliance with a Technical Requirement, the Proposer must include an explanation in Exhibit A-6.

2.2 Proposal Format

The Proposal shall be submitted in a sealed package, which is clearly identified as follows:

Solicitation No. 2021-1AGNG-0001

E-ZPass ETC Equipment and Services Procurement

Proposer / Vendor Corporate Name & Address

Proposer / Vendor Contact Person, Phone Number, and Email

The Proposal package shall contain a Technical submission (everything except price) and a Maximum Price submission. The Maximum Price submission shall be contained within a separate, sealed envelope.

The Technical Submission shall consist of one (1) printed and signed original, and thirty (30) digital copies in PDF format, each on a USB stick or DVD; as well as a physical sample of each Transponder proposed. The Transponder may be functional or non-functional in the Technical Proposal. The Proposal Price submission shall consist of one (1) printed and signed original, and two (2) digital copies in PDF format, each on a USB stick or DVD. There is no page limit imposed. Please use formatting and organization that facilitates reading, e.g. Arial 11.

The RFP cover page indicates the Proposal delivery address and the Proposal due date / time.

2.3 Proposal Contents

The Proposal shall include the following components, in this sequence and easily identifiable:

Technical Submission

1. Cover Sheet and RFP Document Acknowledgement
2. Cover Letter
3. Table of Contents
4. Proposal Summary

5. Corporate Experience and Capability
6. Technical Requirements
(with a Physical sample of each Transponder type/model proposed)
7. Schedule
8. E-ZPass Group Member Forms

Maximum Price Submission (in a separate, sealed envelope)

1. Cover Letter
2. Pricing Forms

2.3.1 Technical Submission

2.3.1.1 Cover Sheet and RFP Document Acknowledgement

Proposer shall include a completed Proposal Cover Sheet form Exhibit A-2, Proposal Cover Sheet).

Proposer shall include a completed RFP Document Acknowledgement form, Exhibit A-3, RFP Document Acknowledgement).

2.3.1.2 Cover Letter

The cover letter shall include the following information:

- A description of the Proposer – company name, nature of organization (e.g., corporation, partnership, etc.), location of company headquarters, location of any branch office(s) that will be significantly involved in the proposed work, and a summary of the company's scope of business.
- The person within the organization who will be the primary contact concerning the Proposal – name, position, business address, telephone/fax numbers, and e-mail address.
- The person(s) who will have primary responsibility for delivering the equipment and services proposed.
- A corporate commitment that the Proposal is compliant with the requirements of the RFP.
- A corporate commitment to execute a contract (per Part V: Terms & Conditions) for supply of certified equipment and/or qualified services with each E-ZPass Member.
- A corporate commitment to submit price quotations as described in Part I: Administration, Section 6.
- A corporate commitment that the Proposer is ready, willing, and able to provide the proposed Equipment and Services in a timely manner upon reasonable notice.
- A statement that the Proposal, including maximum pricing, is an irrevocable offer per Part I: Administrative, Section 2.20 Proposer's Bid.

The cover letter must be signed by an individual or individuals authorized to bind the Proposer contractually. The letter must indicate for each signatory that the signer is so authorized and the title or position the signer holds in the Proposer's organization.

2.3.1.3 Table of Contents

The Table of Contents shall consist of a listing of all items included in the Proposal.

2.3.1.4 Proposal Summary

The Proposal Summary shall list the specific Equipment protocols and models/attribute sets being proposed, highlighting any special features, and provide a synopsis of the Proposer's capabilities and experience relevant to this Proposal.

The Proposal Summary shall not contain any pricing information or discussion.

2.3.1.5 Corporate Experience and Capability

Provide the following information regarding the Proposer's qualifications, including Subcontractors (in the sequence below). Identify the Equipment protocols and form factors that qualifications pertain to.

1. A brief history and description of the Proposer's company, including organization structure, years in business, number of employees, and product lines.
2. Identify any sub-contractors to be used and describe the services they will provide.
3. Annual revenues for the firm and for the subsidiary, division or group responsible for manufacturing and delivery of the proposed Equipment and Services.
4. A copy of the Proposer's audited financial statements for the past two (2) years as an appendix to the Proposal. If a Proposer does not produce audited financial statements, the Proposer shall submit any financial statements that it does have (e.g. lines of credit, statements compiled by an outside accounting firm, etc.) and any other information Proposer feels is pertinent in establishing the financial stability of its business / organization. E-ZPass Group Members reserve the right to review other publicly available information with regard to the Proposer's financial stability, as part of the evaluation. If a Proposer has questions about what evidence of the Proposer's financial stability will be acceptable, the Proposer should communicate with the E-ZPass Group Procurement Coordinator.
5. A description, including the location, of the primary manufacturing facility for the proposed Equipment. Describe and identify the location of alternate manufacturing facilities in case of problems at the primary site (i.e. describe your disaster recovery plan). State how long each facility has been in operation and how long the proposed Equipment has been manufactured at these sites. State the production capacity of each facility. Provide the ISO certification for each facility.
6. A list of clients and contracts for Equipment similar to that requested by this RFP, from 2016 to present. Use the form provided in Exhibit A-4 Proposer's Corporate Experience. Include a description of the size, total dollar value, and specific services provided. Specify the name, address and telephone number of the individual responsible at the client organization for the supervision of such services.
7. A list identifying key personnel in relation to Transponder and Reader research and development, as well as manufacturing and delivery. Describe the experience of each key person. Use the form provided in Exhibit A-5 Proposer's Key Personnel and Experience.

2.3.1.6 Technical Requirements

The Technical Requirements submittal shall include specific responses to each numbered requirement as set out in Part III: Technical Requirements for the Equipment and Services being proposed. Proposers shall also complete the Technical Requirement Compliance Table provided in Exhibit A-6 Compliance Table. Proposers shall explain any differences between models / attribute sets and requirement compliance of each device offered.

Proposers may provide available commercial material as an Appendix to the Proposal for products being proposed; in particular, documentation of proven capabilities or performance.

Proposers shall provide a physical sample of each proposed Transponder with the Proposal Technical Submission. Ensure that each Transponder sample is clearly identified as to Proposer, protocol, and model/attribute set.

2.3.1.7 Schedule

Proposers shall provide a typical schedule for processing the initial order for a Transponder and a Reader. The schedule shall indicate the relationship and expected duration of the following activities (as a minimum):

- Initial E-ZPass Group Member Purchase Order (assume as calendar day 1);
- First Article Factory Acceptance Test Plan – Vendor submittal, E-ZPass Group approval;
- First Article Factory Acceptance Test – conduct, submit results, E-ZPass Group approval; and
- Initial E-ZPass Group Member equipment item delivery;

Note any differences in schedule for different protocol or form factor.

2.3.1.8 E-ZPass Group Member Specific Forms

To the extent that such forms include terms that will become a part of a contract resulting from the procurement, such terms shall only become a part of the individual contract executed by the selected Proposer and the particular E-ZPass Group Member that required such forms, and shall not become a part of any contract which may be executed by the selected Proposer and any other E-ZPass Group Member. Proposers must not alter or change any forms included in this RFP. Forms are to be completed without cross-referencing to information provided by the Proposer on other forms or in other parts of its Proposal.

Proposers are advised that additional forms required for submission with the Proposal may be found in Part V: Terms & Conditions, Appendix A - E-ZPass Group Members Terms & Conditions. Note: The Forms will be provided as part of Exhibit A-7 and included in the Contract at the time of Contract execution.

2.3.2 Maximum Price Submission (in a separate, sealed envelope)

2.3.2.1 Cover Letter

The Price Submission Cover Letter shall contain the same information as the Technical Submission Cover Letter.

2.3.2.2 Maximum Pricing Forms

Proposer shall provide maximum pricing applicable to each specific Equipment and Service item being proposed. The maximum price is the price that the proposer anticipates charging for their minimum order quantity for that item. e.g. for readers, one would be a reasonable minimum order quantity. The minimum order quantity should be entered in the "Unit" column of the maximum price

table.

Considerations regarding price:

- Historical quantities provided in Attachment 2: E-ZPass Group Members Historical Transponder Order Quantities.
- Quantities are for information only. E-ZPass Group Members do not provide any guarantee of actual purchases.
- Interior hard-case Transponders may be ordered in any of the colors as defined in Part III: Technical Requirements, Section 5.4 Transponder Labeling and Color. The unit price for any specific Transponder type / model shall not vary due to color (within the color range defined by the Technical Requirement).
- Transponder labeling may be requested as defined in Part III: Technical Requirements, Section 5.4 Transponder Labeling and Color. The unit price for any specific Transponder protocol/form factor shall not vary due to labeling (within the labeling range defined by the Technical Requirements).
- Equipment shall be packed for delivery as defined in Part III: Technical Requirements, Section 5.5.2 Transponder Delivery. The unit price for any specific Transponder protocol/form factor shall include costs for packing and shipment to an E-ZPass Group Member.
- Transponder mounting components to be included in pricing line items are detailed within each section below.
- The maximum unit price for any specific Equipment item shall be inclusive of delivery FOB continental U.S (Part V: Terms & Conditions, Article 10.04). A specific delivery address will be included with each E-ZPass Group Member's order. The unit price for any specific equipment item shall not vary due to delivery address (within the continental U.S.).
- The maximum unit price shall not include any sales and use tax and any other taxes or duties that may be applicable. Refer to Part V: Terms & Conditions, Article 3 Compensation.
- The maximum unit price for any specific Equipment item shall include services related to the purchase, shipping, and return (if appropriate) (Part III: Technical Requirements, Section 5.5). These services shall be provided to E-ZPass Group Members and/or their designated Customer Service Center (CSC) operations contractor.

A) For each Interior, Hard-Case Transponder included in the Proposal, provide:

1. Model number / identifier.
2. For the contract term:
 - a. Maximum Unit Price for the Transponder and its associated windshield mounting components (e.g. Velcro strips, suction cups), including selected case color, labeling, packaging for shipment, and delivery.
 - b. Maximum Unit Price for the Transponder and its associated windshield mounting components (e.g. Velcro strips, suction cups) supplied in retail packaging, including selected case color, labeling, packaging for shipment, and delivery.

- c. Maximum Unit Price for additional Transponder windshield mounting components.
- d. Maximum Unit Price for Transponder read prevention bags.

B) For each Exterior, Hard-Case Transponder included in the Proposal, provide:

- 1. Model number / identifier
- 2. For the contract term:
 - a. Maximum Unit Price for the Transponder; including black case color, labeling, packaging for shipment, and delivery.
 - b. Maximum Unit Price for Transponder mounting components, for each applicable mounting location (e.g. roof, bumper, license plate).
 - c. Maximum Unit Price for Transponder read prevention bags.

C) For each Interior Sticker Transponder included in the proposal, provide:

- 1. Model number / identifier
- 2. For the contract term:
 - a. Maximum Unit Price for the Transponder, including windshield mounting adhesive back, labeling, packaging for shipment, and delivery.
 - b. Maximum Unit Price for the Transponder supplied in retail packaging, including windshield mounting adhesive back, labeling, packaging for shipment, and delivery.
 - c. Maximum Unit Price for Transponder read prevention bags.

D) For each Exterior Sticker Transponder included in the proposal, provide:

- 1. Model number / identifier
- 2. For the contract term:
 - a. Maximum Unit Price for the Transponder, including mounting adhesive back, labeling, packaging for shipment, and delivery
 - b. Maximum Unit Price for Transponder read prevention bags

E) For each set of Transponder Support Devices and Services included in the Proposal, provide:

- 1. Transponder Programmer Model number / identifier
- 2. For the contract term: Maximum Unit price for a Transponder Programmer.
- 3. Transponder Hand-held Reader Model number / identifier.
- 4. For the contract term: Maximum Unit price for a Transponder Hand- held Reader.
- 5. Transponder Tester Model number / identifier.
- 6. For the contract term: Maximum Unit price for a Transponder Tester.

7. List individual documentation documents – name, date, and version. One set of Transponder and support device documentation (one paper copy and one digital PDF copy) shall be provided to each E-ZPass Group Member ordering Transponders, in conjunction with its first order. There is no price applicable to Documentation.
8. List training topics and suggested duration of training session in the use and maintenance of the Transponder Support Devices. Training shall be provided for an E-ZPass Group Member if specifically ordered.
9. For the contract term: Maximum Unit Price for a training session (at the E-ZPass Group Member's designated location within its jurisdiction).

F) For a Multi-Protocol Standard Reader or Value Reader included in the Proposal, provide:

1. Reader Model number / identifier.
2. Antennas, cables, and accessories Model numbers as applicable.
3. For the contract term:
 - a. Maximum Unit Price for the Reader Unit.
 - b. Maximum Unit Price for the recommended Antenna.
 - c. Maximum Unit Price for cables and accessories (broken out as applicable).
 - d. Maximum Unit Price for Reader maintenance and support services (broken out as applicable).
4. List individual documentation documents – name, date, and version. One set of Reader documentation (one paper copy and one digital PDF copy) shall be provided to each E-ZPass Group Member ordering a Reader, in conjunction with its first order. There is no price applicable to Documentation.
5. List training topics and suggested duration of training session in the use and maintenance of the Reader. Training shall be provided for an E-ZPass Group Member if specifically ordered.
6. For the contract term: Maximum Unit Price for a training session (at the E-ZPass Group Member's designated location within its jurisdiction).

G) For Legacy Readers, provide:

1. For the contract term:
 - a. Maximum Unit Price for Reader maintenance and support services (broken out as applicable).

Part V

Terms and Conditions

Part V: Terms and Conditions

Section 1: ARTICLES

ARTICLE 1 - GENERAL

ARTICLE 1.01 DEFINITIONS AND CONSTRUCTION

All definitions, terminology and acronyms are described in Part II – Glossary.

ARTICLE 1.02 ORDER OF PRECEDENCE

In the event that any provision of this Agreement is inconsistent or in conflict with another provision, the order of precedence shall be as follows:

- a) Appendix A - E-ZPass Group Members Terms & Conditions including Purchase Orders
- b) This Agreement other than a), c), and d) and f) and includes Appendix B- License Agreement
- c) Appendix C- Conformed Technical Requirements
- d) Appendix D-Equipment, Components, Services Listing and Pricing Schedule
- e) Appendix E- Notice Addresses for E-ZPass Group Members
- f) Vendor's Technical Proposal including exhibits and appendices other than Exhibit A-8 Price Proposal.

ARTICLE 1.03 NATURE OF AGREEMENT

- a) The Vendor agrees to provide the Equipment and Services to the Member over the term of this Agreement as defined in Article 2.01, Agreement Term, to satisfy orders placed in accordance with Article 10.02, Orders.
- b) The Vendor acknowledges that there will be no restriction on the Member's testing, procurement or deployment of other vendors' ETC technologies, systems or Services from other vendors during the term of this Agreement.
- c) The Vendor acknowledges that the Member shall not be prohibited from reselling, transferring or otherwise disposing of the Equipment at any time. The Vendor further acknowledges that the Member may purchase Equipment from other E-ZPass Group Members without violating this Article.

ARTICLE 1.04 VENDOR OBLIGATIONS WITH RESPECT TO OTHER PARTIES

- a) The Vendor agrees not to sell, lease, license or provide to any other customers equipment or software that has the ability to decode/interpret ("read") the information contained in E-ZPass Group-format compatible Equipment or that is programmed ("write to") E-ZPass Group compatible

Equipment, or any rights, licenses or privileges in respect thereof, that has been purchased by the Member and/or other E-ZPass Group Members to unauthorized third parties who are not a E-ZPass Group member.

b) The Vendor agrees to sell and provide the Equipment and Services covered in this Agreement to all E-ZPass Group Members, subject to the terms and conditions herein and in compliance with the Technical Requirements.

c) The Vendor agrees to sell and provide the Equipment and Services covered in this Agreement and in compliance with the Technical Requirements to other third parties which have received E-ZPass Group Approval to install Equipment compatible with E-ZPass operations for E-ZPass Plus applications, including but not limited to traffic management, commercial vehicle operations, and parking. Except as specifically provided in the Technical Requirements the Vendor agrees to sell products and Services of equivalent quality, scope and function to those offered to the E-ZPass Group Members and to extend the same terms, conditions, and pricing as included in this Agreement to such third parties who have received E-ZPass Group Approval.

d) To the extent that the Member is a governmental entity the Vendor agrees to sell and provide the Equipment and Services covered in this Agreement, with the exception of Transponders, to the Member's affiliates operating within the jurisdiction of a governmental participating member as shall be specifically designated in a Notice from the Member and as shall have received E-ZPass Group Approval. The Vendor agrees to sell products of equivalent quality, scope and function to those offered to E-ZPass Group Members and to extend the same terms, conditions and pricing included in this Agreement to such designated affiliates. The Vendor recognizes that the designation of affiliates under this Article 1.04 (d) shall not mean that such affiliates become E-ZPass Group Members.

ARTICLE 1.05 INDEPENDENT CONTRACTOR

The Vendor is and shall be, in all respects, an independent contractor in performing the Technical Requirements pursuant to this Agreement. In accordance with its status as an independent contractor, the Vendor covenants and agrees that neither it nor its agents and/or employees will hold itself or themselves out as or claim to be an officer or employee of the E-ZPass Group Member, and that neither the Vendor nor its agents and employees shall make any claim, demand or application to or for any right or privilege applicable to an officer or employee of the Member, including, but not limited to Worker's Compensation coverage, Unemployment Insurance benefits, Social Security coverage or Retirement System membership or credit.

ARTICLE 1.06 GOVERNING LAW AND JURISDICTION

This Agreement shall be governed by and construed in accordance with the laws of the state or province as indicated in Appendix A - E-ZPass Group Members Terms & Conditions. (including Purchase Orders), except where the federal Supremacy Clause requires otherwise. The Vendor further consents to any jurisdictional requirements which may be set forth in Appendix A - E-ZPass Group Members Terms & Conditions.

ARTICLE 1.07 NON-ASSIGNMENT

The Vendor and Member agree that the Vendor has been selected by the Member based on unique and specific qualifications relating to the Equipment and Services. The Vendor shall not sell, assign, sublicense, sub-Agreement, sublet, franchise, mortgage or transfer any interest, right or obligation in this Agreement without the prior written consent of the Member, which shall be at the sole discretion of the Member, and any attempt to sell, assign, sublicense, sub-Agreement, sublet, franchise, mortgage or transfer any interest, right or obligation in this Agreement without the written consent of the Member shall be null and void. For purposes of this Article 1.07, the term “assign”, “assignment” and correlative forms thereof, shall be deemed to include: (i) the transfer of this Agreement or the rights or obligations hereunder, whether voluntarily, involuntarily, by operation of law or otherwise; (ii) a sale or other transfer by the Vendor of all or substantially all of its assets; (iii) the merger, amalgamation, consolidation or reorganization of the Vendor into or with another corporation or other entity as a result of which the Vendor is not the surviving entity; (iv) any transaction (including any of the foregoing transactions, as well as any in which the Vendor is the surviving entity) which, whether by way of sale, gift or other transfer, whether involving the Vendor or the record or beneficial owners of equity interests in the Vendor, results in more than a forty percent (40%) change in the voting control of the Vendor; or (v) any of the foregoing transactions that occur with respect to the majority owner of the Vendor.

If at any time while this Agreement remains in effect, the Vendor wishes to assign or encumber this Agreement, the Vendor shall provide Notice to the Member, at the same time providing the Member with all information and documentation necessary to permit the Member to evaluate the contemplated transaction. The Member shall be entitled to condition its consent to any assignment or encumbrance of this Agreement on such terms and conditions as the Member deems appropriate.

Notwithstanding any such assignment, the Vendor shall remain responsible for all representations, warranties, covenants, guarantees and obligations of the Vendor set forth herein. Any transferee shall have the qualifications and financial responsibility necessary in the sole determination of the Member to assure compliance with the obligations of the Vendor herein and to assure compliance with all laws, regulations, executive orders and procedures relating to the selection of vendors by any E-ZPass Group Member. Any transferee, by instrument in writing satisfactory to the Member, shall, for itself and its successors and permitted assigns, have assumed all of the obligations of the Vendor under this Agreement and agreed to be subject to all conditions and restrictions herein.

ARTICLE 1.08 NO THIRD-PARTY BENEFICIARY

Nothing in this Agreement shall act to confer third party beneficiary rights with the exception of Article 1.04, Vendor Obligations with Respect to Other Parties, and Article 1.12, Price Match Guarantee and Article 5.02 Financial Assurance. Nothing in this Agreement shall create any obligation on the part of the Member to any third party.

ARTICLE 1.09 INDEPENDENT AGREEMENTS

The Vendor shall seek resolution of all disputes and payment for the Equipment and Services furnished to the Member pursuant to this Agreement from the Member only and not from any of the other E-ZPass Group Members. Each agreement executed between the Vendor and a E-ZPass Group

Member is independent and the E-ZPass Group Member shall have no obligation to resolve such disputes, nor any liability arising from disputes under any agreement executed with any other E-ZPass Group Member, or to become a guarantor for any payments due to the Vendor from any other E-ZPass Group Member.

ARTICLE 1.10 NO ARBITRATION

Unless provided otherwise in Appendix A - E-ZPass Group Members Terms & Conditions, disputes involving this Agreement, including the breach or alleged breach hereof, may not be submitted to binding arbitration (except where required by statute) but shall, instead, be heard in a court of competent jurisdiction of the state or province identified in Article 1.06, Governing Law and Jurisdiction.

ARTICLE 1.11 ANTITRUST ASSIGNMENT

The Vendor hereby assigns, sells and transfers to the Member all rights, title and interests in and to any claims and causes of action now existing or arising or accruing any time heretofore or hereafter under the antitrust laws of the state(s) or provinces in which the Member is located, or of the United States or Canada relating to the Equipment and Services purchased or procured by the Member hereunder.

ARTICLE 1.12 PRICE MATCH GUARANTEE

a) The Vendor will match its price for any substantially similar, equivalently performing ETC Transponder under contract awarded through a competitive, public procurement between the Vendor and any public tolling agency in the United States. The Vendor shall provide notice to E-ZPass Group Members of all such price reductions made to a public tolling agency in the United States during the term of this Agreement and such price reduction shall be granted to any Member with a contract with the Vendor for such ETC Transponders retroactive to the time such price reduction was first granted to such new customer.

b) The Vendor shall provide the E-ZPass Group Members with Notice of all reductions made to its price lists included in any commercial catalogs, term sheets or other formats by which the Vendor offers its Equipment or Services for sale in the E-ZPass Group. This Notice shall be provided within thirty (30) Days following the date such price lists are issued. The Vendor need not report prices which are not below those set forth in Appendix D-Equipment, Components, Services Listing and Pricing Schedules.

c) If after the execution of this Agreement by the Member or the execution of an agreement between the Vendor and any of the E-ZPass Group Members, the Vendor reduces the prices it offers to new or existing customers as described in subparagraphs (b) or (c) of this Article 1.12, a reduction resulting in an equivalent price shall apply to this Agreement for the remainder of the Agreement Term as defined in Article 2.01, Agreement Term, or until further reduced or, in the case of temporary price reductions, for the duration of any temporary price reduction period.

d) This Article 1.12 shall not apply to any sale at a price below the price set forth in Appendix D-Equipment, Components, Services Listing and Pricing Schedules, if caused by an error in billing,

provided that the error is corrected and the customer is billed based on corrected pricing and provided that adequate documentation is furnished by the Vendor to the Member within thirty (30) Days following the discovery of the error.

e) Any price reduction granted by the Vendor to any customer with operations in the E-ZPass Group or offered by the Vendor on any of its price lists for E-ZPass Group Members in accordance with subparagraphs (b) or (c) of this Article 1.12, respectively, shall be effective for the Members and E-ZPass Group Members, retroactive to the time such price reduction was first granted to such customer, or included on such price list, as the case may be. The Vendor shall invoice at such reduced price and indicate thereon that the price reduction is pursuant to the provisions of this Article 1.12. Any such invoice shall be accompanied by a statement by the Vendor explaining the calculation for the price reduction, giving the Member an opportunity to contest same. If there is a credit balance, the Member has the option to require a refund from the Vendor at any time.

f) The Vendor shall furnish to the Member within ten (10) Days after the end of each twelve (12) month period from the First Agreement Date a statement certifying either (i) that there was no applicable reduction; or (ii) that any price reduction was reported to the Member and E-ZPass Group Members. For each reported price reduction, the Vendor shall state the date when it notified the Member and E-ZPass Group Members.

ARTICLE 1.13 SUCCESSION

Upon the expiration or any earlier termination of this Agreement in accordance with the terms hereof, regardless of the time, manner or reason of or for such termination, the Vendor shall cooperate with the Member and any other entity or entities designated by the Member to facilitate a smooth succession to the Member's selected successor for the Equipment and Services as reasonably requested by the Member. Such cooperation shall include engineering and technical support and be provided as part of Time and Material Maintenance Support Services in accordance with the Technical Requirements and pricing in Appendix D- Equipment, Components, Services Listing and Pricing Schedules for such Services. Support shall include but not be limited to attendance at meetings; integration and design support to ensure non-interference with the Equipment, and implementation support.

Additionally, the Vendor agrees to cooperate with the Member in the Member's implementation of any new technology to comply with any national ETC standards introduced over the term of this Agreement, and that the Member shall be entitled to exercise all rights granted pursuant to the license set forth in Article 4.02, Licenses, in respect of the Equipment, and all elements thereof, in whole or in part, in configuration, combination or conjunction with, or as part of, any such new technologies.

This Article 1.13 shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 1.14 SEVERABILITY

If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable, such provision shall be deemed eliminated and the remainder of this Agreement shall not be affected, but shall remain binding and effective as against all parties hereto.

ARTICLE 1.15 ENTIRE AGREEMENT

This Agreement, including any appendices, attachments, schedules or exhibits, constitutes the entire understanding between the parties relating to the subject matter hereof and there are no other oral or extrinsic understandings of any kind between the parties. This Agreement supersedes all prior agreements, written or oral, between the parties on the subject matter hereof. This Agreement may not be changed, modified, or amended in any manner except by a subsequent writing, duly executed by the parties hereto.

ARTICLE 1.16 NOTICES

Unless permitted otherwise in Appendix A - E-ZPass Group Members Terms & Conditions, all notices, requests, demands and other communications required or permitted hereunder, other than with respect to daily operations, shall be in writing and shall be deemed to have been duly given (a) if delivered by hand or nationally recognized overnight delivery service, when delivered; (b) if by facsimile, on the first Business Day when received, or (c) if by mail, five (5) Business Days after being mailed, certified or registered mail, with postage prepaid as follows:

If to the Member, to the address and to the attention indicated on the execution page of this Agreement or as otherwise provided in Appendix A - E-ZPass Group Members Terms & Conditions;

If to the Vendor, to the address and to the attention set forth on the execution page of this Agreement; and

If to the E-ZPass Group Members, to the addresses and to the attention set forth in Appendix E- Notice Addresses for E-ZPass Group Members, as may be amended from time to time by the Member.

Any party may change such addresses by providing a Notice in accordance with this Article 1.16.

ARTICLE 1.17 SERVICE OF PROCESS

The Vendor hereby consents to service of process upon it by registered or certified mail, return receipt requested. Service hereunder shall be complete upon the Vendor's actual receipt of process or upon the Member's receipt of the return thereof by the United States Postal Service as refused or undeliverable, or as otherwise specifically provided in Appendix A - E-ZPass Group Members Terms & Conditions. The Vendor must promptly provide Notice to the Member of each and every change of address to which service of process can be made. Service by the Member to the last known address shall be sufficient.

Without limiting the foregoing, the Vendor further consents to any methods of service to the extent such methods are allowed by applicable laws of the state or province referred to in Article 1.06, Governing Law and Jurisdiction.

ARTICLE 1.18 BENEFIT

Subject to the provisions hereof with respect to assignment, this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective successors and permitted assigns.

ARTICLE 1.19 JOINT AND SEVERAL LIABILITY

This Agreement shall not operate as a joint venture, trust, agency or any other business relationship. If the Vendor is a partnership, each party to the joint venture or each partner (other than a limited partner in a limited partnership), as the case may be, is jointly and severally liable for all obligations under this Agreement and the term "Vendor" means each of them as well as all of them.

ARTICLE 2 - TIME AND MANNER OF PERFORMANCE

ARTICLE 2.01 AGREEMENT TERM

This Agreement shall commence on the Agreement Date and shall expire seven (7) years after the Effective Date, unless earlier terminated pursuant to Article 8.02, Notice of Default-Chance to Cure, Termination or Article 2.17, Termination for Convenience by the Member/Suspension of Work. The term of this Agreement may be extended for three (3) additional one (1) year periods at the sole discretion of the Member upon Notice to the Vendor not less than ninety (90) Days prior to the original expiration of this Agreement. References herein to "term of this Agreement", "term hereof", "agreement term", or "Agreement Term" or words to the same effect shall mean such period, including the option period, if such option is exercised by the Member.

The Member shall issue a Notice to Proceed at the time the Member desires the Vendor to commence performance under this Agreement, which Notice to Proceed shall identify the Member's initial Project Manager.

The E-ZPass Group intends to allow an open enrollment for potential Vendors on this Agreement in future years. The premise for the open enrollment is to provide a mechanism for Vendors with new and viable ETC Equipment and Services that are beneficial to the E-ZPass Group to become authorized Vendors under this Agreement, as described in Part I, Administrative. The open enrollment process for New Vendors or New Products is: 1) E-ZPass Group will conduct an administrative review to determine if the Vendor, its equipment and services are eligible for qualification; 2) prospective qualified Vendors will be certified; and 3) E-ZPass will select Vendors to be added to the pool of approved qualified Vendors. The open enrollment period for New Vendors or New Products is once a year from the date this Agreement is awarded, for a calendar month period. New Vendors interested in becoming an authorized Vendor will be evaluated under the same requirements and evaluation criteria as the original authorized Vendors under this Agreement, unless newly announced industry services, laws or regulations require additional evaluation criteria. Newly awarded Vendors will be provided a four month window starting six (6) months prior to the start of open enrollment to comply with requirements and standards associated with this Agreement and open enrollment, including, but not limited to, all provisioning and billing requirements as indicated in the Terms and Conditions. Vendors in good standing who bid but were excluded from the initial award of this Agreement (but not debarred) may participate in the open enrollment. Vendors should note that the E-ZPass Group reserves the rights to reject any proposed service offerings or Vendor's request to become an authorized supplier of services to the E-ZPass Group. All new Vendors added during open enrollment may provide services until the end of the original Agreement Term.

ARTICLE 2.02 SURVIVAL OF TERMS

In addition to those Articles noted in this Agreement as surviving the termination, cancellation, or expiration of this Agreement, the terms of this Agreement, the Vendor's obligations and the obligations of the Member under this Agreement, which by their nature would reasonably be understood to continue beyond the termination, cancellation, or expiration hereof, shall survive termination, cancellation, or expiration hereof.

ARTICLE 2.03 GENERAL

The Vendor recognizes the paramount importance of customer relations, both in the Member's fulfillment of its statutory or corporate mission, and in the successful operation of E-ZPass and the successful implementation of the Equipment as described in the Technical Requirements in a timely, skillful and efficient manner. Inasmuch as E-ZPass is provided for the convenience and benefit of the public, the Vendor acknowledges that the quality of, and timeliness of, all Equipment and Services are the essence of this Agreement. The Vendor's general responsibilities for the Equipment and Services include the following:

- a) The Vendor has and shall have the requisite technology, intellectual property rights, facilities, personnel, equipment, expertise, experience, knowledge and skill to timely, fully and effectively perform its obligations under this Agreement. The Vendor shall provide all resources, personnel, equipment and supplies necessary to perform the Technical Requirements. The Vendor shall provide the Equipment and Services described herein in a competent and professional manner to the satisfaction of the Member. The Vendor agrees that it shall at all times employ, maintain and assign to the performance of the Technical Requirements a sufficient number of competent and qualified professionals and other personnel to meet the Technical Requirements in a timely manner. The Vendor warrants and represents that its personnel have the proper skill, training, background, knowledge, experience, rights, authorizations, integrity, character and licenses necessary to perform the Technical Requirements described herein, in a competent and professional manner.
- b) The Member shall be entitled to full and prompt cooperation of the Vendor in all aspects of the Technical Requirements. The Vendor shall use best efforts to minimize any disruption to the Member's normal business operations when Vendor Parties are performing Services.
- c) The Vendor represents that the Equipment and Services shall comply with the specific requirements of this Agreement and that the Equipment and Services if purchased by any of the E-ZPass Group Members, shall be fully interoperable and compatible with the Equipment and Services purchased by the Member as described in this Agreement. The design of the Equipment shall satisfy any statutory requirements which may be specified in Appendix A - E-ZPass Group Members Terms & Conditions.
- d) The Vendor shall provide Equipment as described throughout Part III, Technical Requirements, as well as Services required to be performed at no additional cost pursuant to the Technical Requirements.
- e) The Vendor shall provide Services and engage in the activities set forth in the Technical

Requirements for which pricing is specified in Appendix D-Equipment, Components, Services Listing and Pricing Schedules.

f) The Vendor shall provide Services as described in the Technical Requirements in accordance with pricing in Appendix D-Equipment, Components, Services Listing and Pricing Schedules, in the event the Member has a requirement to procure such items for the purposes outlined in the Technical Requirements and decides, in its sole discretion, to use the Vendor for such purposes.

g) During the term of this Agreement, the Member may purchase the Vendor's products in accordance with the provisions of Article 1.12, Price Match Guarantee, and the provisions of Article 2.06, Coordination with E-ZPass Group.

h) The Vendor agrees that all Vendor Parties shall comply with all provisions of all federal, state, and local laws, ordinances, rules, and regulations that are applicable to the performance of this Agreement, and to procure all necessary registrations, licenses and permits. The Vendor agrees to provide evidence of such compliance, registrations, licenses, and permits upon the request of the Member. The Vendor shall ensure that all Vendor Parties shall perform all acts and obligations necessary for Vendor to fully comply with its obligations under this Agreement.

i) At the Member's request, the Vendor shall cooperate with the Member and any other party identified by the Member in connection with application, receipt and use of federal funding assistance related to the implementation of the Technical Requirements.

ARTICLE 2.04 COMPLIANCE WITH MEMBER-SPECIFIC REQUIREMENTS

The Vendor agrees that all Vendor Parties shall comply with all Member-specific requirements and policies as included in Appendix A - E-ZPass Group Members Terms & Conditions.

ARTICLE 2.05 EMERGENCY RIGHTS OF MEMBER

In the event of an emergency which, if not corrected, could endanger life, limb, property, public health or safety, or essential services at the Site(s), the Member may do anything necessary or advisable to alleviate such an emergency situation, including performing work at the Site(s), or directing another contractor to perform work at the Site(s), as determined by the Member in its sole judgment. For purposes of this Article 2.05, an emergency also includes emergencies as determined by the Federal Emergency Management Agency or the U.S. Department of Homeland Security or any other federal, state, provincial or local agency having the authority to declare emergencies.

ARTICLE 2.06 COORDINATION WITH E-ZPASS GROUP

a) Recognizing the paramount importance of interoperability among E-ZPass Group Members, the Vendor shall obtain E-ZPass Group Approval for certain submissions or changes as further set forth in this Agreement, with respect to Article 1.04, Vendor Obligations with Respect to Other Parties, and this Article 2.06. Reference herein to submissions to the E-ZPass Group shall mean Notice to each of the E-ZPass Group Members. Reference herein to requests or notifications by the E-ZPass Group shall mean written Notice to the Vendor authorized in the same manner as E-ZPass Group Approval.

- b) The Vendor acknowledges that the E-ZPass Group is not an entity, partnership, or joint venture. The Vendor acknowledges that the E-ZPass Group Agreements may be amended without notice to or consent of the Vendor. No change in the IAG Agreements shall affect the obligations of the Vendor under this Agreement. Without limiting anything in Article 1.09, Independent Agreements, the Member shall have no responsibility for any consent or approval required by the E-ZPass Group or nor for any action or inaction of the E-ZPass Group.
- c) The Vendor shall obtain E-ZPass Group Approval before making any Model changes to any Equipment covered under this Agreement, including future products offered as compatible with the previously installed Equipment, Components and Services. The Vendor shall seek E-ZPass Group Approval well in advance of any anticipated deployment by any E-ZPass Group Member.
- (i) During the term of this Agreement, the Vendor shall perform New Product Testing in accordance with Article 10.01 Tests, for design changes and redesigns, such as redesign due to component end-of-life, regardless of whether or not the same are requested by the E-ZPass Group Member.
- (ii) The Vendor shall not establish or change prices to the Member for any new Model without advance approval by the Member, except as explicitly provided in Appendix D-Equipment, Components, Services Listing and Pricing Schedules.
- d) The Vendor shall not discontinue production of products required to be provided to the Member pursuant to this Agreement without prior E-ZPass Group Approval. If the Vendor receives E-ZPass Group Approval to discontinue production of any Models, the Vendor must obtain advance E-ZPass Group Approval for any price increase for the new/replacement Models above the prices applicable to the Models discontinued.

ARTICLE 2.07 HARMONY

The Vendor shall not employ any persons or use any labor, or use or have any equipment, or permit any condition to exist which shall or may cause or be conducive to any labor complaints, troubles, disputes or controversies which interfere or are likely to interfere with the Member's operations or facilities, or with the operations of the Vendor under this Agreement.

The Vendor shall immediately give notice to the Member (to be followed by Notices and reports) of any and all impending or existing labor complaints, troubles, disputes or controversies and the progress thereof. The Vendor shall use its best efforts to resolve any such complaint, trouble, dispute or controversy. If any type of strike, boycott, picketing, work stoppage, slowdown or other labor activity is directed against the Vendor Parties or against any operations of the Vendor Parties under this Agreement, whether or not caused by the Vendor Parties, and if any of the foregoing, in the opinion of the Member, results or is likely to result in any curtailment or diminution of the Technical Requirements to be performed hereunder or to interfere with or affect the operations of the Member, or in the event of any other cessation or stoppage of operations by the Vendor hereunder for any reason whatsoever, the Member shall have the right at any time during the continuance thereof to suspend the operations of the Vendor under this Agreement. During such time of suspension, the Vendor shall not be entitled to any compensation. Notice of suspension shall be given in writing.

No exercise by the Member of the rights granted to it in this Article 2.07 shall be deemed to be a

waiver of any rights of termination or revocation contained in this Agreement or a waiver of any rights or remedies which may be available to the Member under this Agreement or otherwise.

During the term of this Agreement, it may be necessary for other Contractors and other persons (including personnel of the Member) to do work in or about the Site(s) at the same time as any Vendor Party is performing Services at the Site(s). The Member reserves the right to permit and put such other Contractors and such persons to work and to afford them access to the Site(s) at such time and under such conditions as do not unreasonably interfere with the Vendor. The Vendor shall progress its work continuously and diligently and shall so plan and conduct its operations as to work in harmony with others engaged at the Site and not to delay, endanger or interfere with the operation of others, all to the best interests of the Member and the public, as may be directed by the Member.

ARTICLE 2.08 AUTHORITY OF THE PROJECT MANAGER

a) The Vendor hereby authorizes the Member's Project Manager to determine in the first instance all questions of any nature whatsoever arising out of, under, or in connection with, or in any way related to or on account of, this Agreement including, without limitation: questions as to the value, acceptability and fitness of the Equipment and Services; questions as to either party's fulfillment of its obligations under this Agreement; negligence, fraud or misrepresentation before or subsequent to execution of this Agreement; questions as to the interpretation of the Technical Requirements, and claims for damages, compensation and losses.

b) The Project Manager may give orders to the Vendor to do work which he/she determines to be necessary for the Vendor to fulfill the Vendor's obligations under this Agreement. Such orders shall be in writing unless not practicable, in which event any oral order must be confirmed in writing by the Project Manager as soon thereafter as practicable.

c) If requested by the Vendor, the Project Manager will promptly provide explanations and reasons for his/her determinations and orders hereunder, as deemed appropriate by the Project Manager.

d) The Vendor shall be bound by all determinations or orders and shall promptly obey and follow every order of the Project Manager, including the withdrawal or modification of any previous order and regardless of whether the Vendor agrees with the Project Manager's determination or order.

e) The Vendor agrees that in the event of dispute as to cooperation with other Contractors of the Member, the Member's Project Manager shall decide all matters in the event of such a dispute and decisions made by the Project Manager shall be binding. The Vendor agrees to make no claims against the Member for any inconvenience, delay or loss experienced because of the presence and operations of other Contractors, subject to the provisions of Article 2.07, Harmony.

f) In the event the Vendor wishes to dispute the order or determination of the Project Manager, the Vendor shall appeal to the Member's Authorized Officer or as otherwise specifically provided in this Agreement, or Appendix A - E-ZPass Group Members Terms & Conditions, or in a Notice to the Vendor. The Vendor shall be required to continue to comply with the order or determination of the Project Manager notwithstanding any appeal until such time as the Project Manager has withdrawn such order or it is overturned pursuant to the appeal process.

ARTICLE 2.09 INVESTIGATION OF DEFICIENT EQUIPMENT AND COMPONENT PERFORMANCE

In addition to but not in limitation of Article 7.06, Defects, the Vendor shall investigate and resolve all cases of deficient Equipment and Component performance, as identified and documented by the E-ZPass Group Member. If the Member identifies a case of deficient Equipment and Component performance, the investigation and problem resolution shall be approved, guided, and directed by the Member, who may involve other entities as well. If another E-ZPass Group Member identifies a case of deficient Equipment and Component performance which may affect interoperability among E-ZPass Group Members, the investigation and problem resolution shall also be subject to E-ZPass Group Approval. Regardless of which of the Vendor Parties was responsible for the deficient performance, the Vendor shall promptly correct the deficiency at its sole cost and expense.

ARTICLE 2.10 MAINTENANCE OF RECORDS; INSPECTION, REVIEW AND AUDIT

a) The Vendor shall establish and maintain complete and accurate books, data, records, documents, accounts and other evidence pertaining to any matters relating to this Agreement (collectively, "Records") including, without limitation, records relating to other customers of the Vendor in connection with Article 1.12, Price Match Guarantee, and the Vendor's quality assurance efforts in connection with the manufacture and delivery of Equipment and the performance of Services. Such Records shall be maintained in accordance with Generally Accepted Accounting Principles, as applicable.

b) Unless otherwise provided in this Article 2.10, the Vendor shall maintain Records that conform to those requirements defined in Sub-Part IV.7 of the Federal Acquisition Regulations ("FAR"), and such Records shall only address those transactions related to this Agreement and the transactions conducted with any of the E-ZPass Group Members. The Vendor farther agrees to maintain an accounting system that provides for the following:

- (i) accounting records that are supported with adequate documentation; and
- (ii) adequate procedures for determining the allowability and allocability of costs according to the FAR; and
- (iii) effective control over, and accountability for, Agreement funds and tangible personal property acquired for use on an Agreement; and
- (iv) records that accurately, currently, and completely identify costs for each significant cost objective; and
- (v) records that distinguish between direct and indirect costs in a logical and consistent manner; and
- (vi) timekeeping records kept in sufficient detail to allow employees' time to be associated with the various Agreements they work on.

c) The Vendor shall permit authorized representatives of the Member to inspect, review and audit the Records during the Vendor's normal business hours. All parties designated by the Member and any other person or entity authorized to conduct such an inspection, review or audit shall be granted full and prompt cooperation by the Vendor and all necessary access to the Records at an

office of the Vendor within the state in which the Member's principal administrative office is located, or, if no such office is available, at a mutually agreeable and reasonable venue within that state, for purposes of inspection, reviewing, auditing and copying.

d) The Member shall have the right to inspect the performance of the Vendor Parties at any time and the Vendor shall fully and promptly cooperate with the Member in the execution of such inspections.

e) The Member's rights to inspect, review and audit include (i) surveillance of the Vendor operations including other sources where manufacture of Equipment may occur to ensure compliance Part III - Technical Requirements, (ii) measuring the quality of Equipment to be offered for acceptance, (iii) inspection of Equipment awaiting release for shipment to ensure compliance with the Technical Requirements, and (iv) interviewing key personnel of the Vendor.

f) The Vendor's obligation to maintain Records, and the Member's rights to inspect, review and audit under this Article 2.10, shall exist during the term of this Agreement and shall survive for a period of seven (7) years (or any other longer period required by law) following final payment under or the termination of this Agreement, whichever is later. As used in this subparagraph, "termination of this Agreement" shall mean the later of completion of the Technical Requirements or the end date of the Agreement term defined in Article 2.01, Agreement Term, or such earlier date as this Agreement has been terminated in accordance with Article 2.17, Termination for Convenience by the Member/Suspension of Work, or Article 8.02, Notice of Default-Chance to Cure, Termination.

g) In all of the Vendor's Agreements with its sub-contractors, the Vendor shall include provisions equivalent to this Article 2.10 to obligate the Subcontracts and suppliers to maintain Records, and to grant the Member the right to inspect, review and audit Records and performance of such sub-contractors and suppliers.

ARTICLE 2.11 PRESS RELEASE OR OTHER PUBLIC COMMUNICATION

Under no circumstances shall the Vendor Parties:

a) Issue or permit to be issued any press release, advertisement or literature of any kind which refers to the Member, or the Technical Requirements being performed pursuant to this Agreement, unless the Vendor first obtains the written approval of the Member. The Vendor shall seek such written approval from the Project Manager or from such other Member officer or employee as the Project Manager shall identify. The Vendor understands and accepts that generally the Member will not grant permission for public announcements or news releases and will only allow the use of the Member's name (without logo) on a list of references, in materials provided by the Vendor to specific customers or prospective customers of the Vendor in response to particular inquiries from such parties as to existing customers of the Vendor; or

b) Issue or permit to be issued any press release, advertisement or literature of any kind which refers to the E-ZPass Group, E-ZPass or E-ZPass Plus, with or without logos, unless the Vendor first obtains E-ZPass Group Approval; or

c) Communicate in any way with any contractor, department, board, authority, commission or other organization or any person whether governmental or private in connection with the Technical

Requirements to be performed hereunder except upon prior written approval and instruction of the Member; or except in response to a request from a governmental entity with subpoena powers; or

d) Represent, directly or indirectly, that any product or service provided by the Vendor Parties has been approved or endorsed by the E-ZPass Group Member, or the E-ZPass Group, either individually or collectively.

This Article 2.11 shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 2.12 USE OF MARKS/LOGOS

The Vendor understands that the Member may direct it to utilize, and in such case the Vendor shall utilize, in strict accordance with rules established by the Member, the logos, trademarks, service marks, and other trade designations associated with the Member and E-ZPass. Such use shall be in compliance with all terms of quality and use required by the Member and limited to activities directly related to providing the Equipment and Services pursuant to this Agreement.

The Vendor understands and agrees that it shall have no proprietary interest in such logos, trademarks, service marks or other trade designations utilized in the provision of Services and Equipment pursuant to this Agreement, or any of the goodwill associated therewith, that other entities may have such rights, and that the Vendor must fully respect, recognize, and act in accordance with such rights.

ARTICLE 2.13 SUBCONTRACTOR RELATIONS

a) The Vendor may, with the prior written approval of the Member, utilize subcontractors to perform some of the Technical Requirements that the Vendor is required to perform pursuant to this Agreement. Prior to awarding any sub-contract, the Vendor shall submit to the Member a written statement containing the proposed element(s) of the Technical Requirements the sub-contractor is to perform, the qualifications of sub-contractor's personnel that will be performing such element(s) and such other information as the Member may require. If the Member, in its sole discretion, approves the use of a sub-contractor for a specified scope, the Vendor shall incorporate all of the terms of this Agreement into its Agreement with the Subcontractor and shall pay the Subcontractor pursuant to such Agreement promptly. The Vendor shall be fully responsible to the Member for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, just as the Vendor is fully responsible to the Member for the acts and omissions of persons directly employed by it. Nothing contained in this Agreement shall create any contractual relationship between a Subcontractor and the Member. The agreement between the Vendor and Subcontractor shall designate the Member as a third party beneficiary thereunder.

b) The Vendor shall include in each of its Agreements with any Subcontractor an express restriction upon sale, assignment, sublicensing, subcontracting, subletting, franchising, mortgaging or transferring any interest, right or obligation in such Agreement without the prior written consent of the Vendor, which consent shall be subject to the Vendor obtaining the prior written approval of the Member in accordance with the process described in subparagraph (a) of this Article 2.13. The Vendor's Agreement with the Subcontractor shall state that any attempt to sell, assign, sublicense, subcontract sublet, franchise, mortgage or transfer any interest, right or obligation in any such Agreement without the prior written consent of the Vendor shall be null and void. The Vendor's

Agreement with the Subcontractor shall expressly define the term “assign” as used in this context to include the scenarios outlined in subparagraphs (i) through (v) of Article 1.07, Non-Assignment, with “Subcontractor” substituted for “Vendor”.

c) Within each subcontract for the performance of any element of the Technical Requirements hereunder, there shall be a clause for the benefit of the Member permitting the Member to require completion of performance by the Subcontractor of its obligations under the subcontract, in the event the Member finds the Vendor in breach of the Vendor’s obligations under this Agreement.

d) At the request of the Member, the Vendor shall furnish to the Member copies of all Agreements between the Vendor and its subcontract used to perform any element of the Technical Requirements pursuant to this Agreement.

e) The Member shall have the right to withdraw its consent to a subcontract if it appears to the Member that the Subcontractor or terms of the Agreement will delay, prevent, or otherwise impair the Vendor’s performance of any element of the Technical Requirements under this Agreement.

f) The Member shall also have the right to withdraw its consent to a subcontract if the Subcontractor with whom such subcontract exists or if any person who directly controls the activities of such Subcontractor has been determined to be non-responsible by the Member in accordance with the Member’s responsibility guidelines.

ARTICLE 2.14 EXTENSION OF TIME

a) If the performance of the Vendor’s obligations contained in this Agreement is delayed at any time hereunder, then the affected Scheduled Delivery Date as defined in Article 10.02, Orders, or the required performance of warranty Services and/or optional Services purchased from the Vendor may be extended by the Member in the reasonable exercise of its discretion for such reasonable time as the Member may determine, provided that:

(i) The cause of the delay is beyond the control of the Vendor Parties and arises without their fault or negligence, and arises after the execution hereof and neither was nor could have been anticipated by the Vendor Parties by reasonable investigation; and

(ii) The Vendor demonstrates that the completion of the performance will be actually and necessarily delayed by the causes set forth in (i) above; and

(iii) The effect of such cause cannot be avoided or mitigated by the exercise of all reasonable precautions, efforts and measures by the Vendor Parties, whether before or after the occurrence or the cause of delay; and

(iv) The Vendor has provided a Notice to the Member within ten (10) Days after the time it knows or reasonably should have known of any cause which might, under reasonably foreseeable circumstances, result in a delay for which it may request an extension of time. The Vendor shall specifically state in such Notice that an extension is or may be claimed and identify the cause of the delay, describing the nature and expected duration of the delay and its effect on the completion of the affected portions of the work identified in the Notice. All of the conditions of this subsection (a) must be met in order for the Member to consider a delay to be an excusable delay.

- b) The period of any extension of time shall be only that which is necessary to make up the time actually lost. The Member reserves the right to rescind or shorten any extension previously granted if the Member subsequently determines that any information provided by the Vendor Parties in support of a request for an extension of time was erroneous or that there has been a material change in the facts stated.
- c) The Member may require the Vendor to furnish such additional information or documentation as the Member shall reasonably deem necessary or helpful in considering a requested extension. The Vendor shall furnish such required information or documentation promptly. The Vendor understands an extension of time will not be granted unless it affirmatively demonstrates to the Member's reasonable satisfaction that the circumstances shown justify such extension. In addition, the Vendor shall keep the Member advised as to the status of the circumstances giving rise to the request for the extension irrespective of the Member's request for additional information.
- d) Within thirty (30) Days of its receipt of all information and documentation as may be required by the Member, the Member shall advise the Vendor of its decision on such requested extension. Notwithstanding the foregoing, where it is not reasonably practicable for the Member to render its decision within such thirty (30) Day period, the Member shall, prior to the expiration of such period, advise the Vendor that it will require additional time and the approximate date upon which it expects to render such decision.
- e) If any of the Vendor Parties become aware that any person seeks a restraining order, preliminary injunction, injunction or other judicial or governmental act which may delay or otherwise affect the performance of the Technical Requirements, the Vendor shall promptly give the Member a copy of all legal papers received in connection with such action or proceeding. The Member shall be accorded the right to intervene or become a party to any suit or proceeding in which any such restraining order, preliminary injunction, injunction or other judicial or governmental act shall be sought or obtained and to oppose or to move to dissolve the same or otherwise, as the Member may deem proper at the Vendor's expense.
- f) Permitting the Vendor to proceed with the Technical Requirements subsequent to any missed schedule milestone, Scheduled Delivery Date, or delay in performance of warranty Services and/or optional technical support and Maintenance Support Services purchased from the Vendor (as such date may have been extended pursuant to the provisions of this Article 2.14) and/or the making of any payments to the Vendor shall not be deemed a waiver of or otherwise compromise any of the Member's rights or remedies under this Agreement or applicable law, including the contractual right to assess actual or liquidated damages or declare the Vendor in default.

ARTICLE 2.15 EXTENSION OF TIME NOT CUMULATIVE

In the event the Vendor is delayed concurrently by two or more causes identified in accordance with Article 2.14, Extension of Time, the Vendor shall not be entitled to a separate extension for each one of the causes but only one period of extension shall be granted for the delay. In addition, the Vendor shall not be entitled, by reason of a delay, to an extension of time for the completion of the overall Technical Requirements unless the Technical Requirements is necessarily affected by the delay. Accordingly, in the event of a delay, the Vendor shall proceed continuously and diligently with the

performance of the unaffected portions of the Technical Requirements.

ARTICLE 2.16 CHANGE ORDER

- a) No change in or modification, termination or discharge of the Technical Requirements or any part thereof, in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the Member's Authorized Officer.
- b) This Agreement and subsequent Purchase Order(s) is awarded subject to shipment of quantities, qualities, and prices indicated by the Purchase order or Agreement, and all conditions and instructions of the Agreement or proposal on which it is based. Any changes made to this Agreement or purchase order proposed by the Vendor are hereby rejected unless accepted in writing by the Agency or State Award Authority. The Member shall not be responsible for Services or services delivered without a purchase order from the Member as required in Appendix A - E-ZPass Group Members Terms & Conditions.
- c) Any material changes to the terms of the Purchase Order shall require a written Amendment to the purchase order. No claim for additional compensation shall be recognized unless contained in a duly executed Amendment.
- d) If the Member provides a dispute resolution process in Appendix A - E-ZPass Group Members Terms & Conditions, or otherwise in a Notice to the Vendor, the Vendor shall follow such process for resolving any Disputed Work and in order to recover compensation for the Disputed Work. During the pendency of any dispute hereunder, the Vendor must proceed with the Disputed Work in accordance with the Member's written directives pursuant to subparagraph (e) of this Article 2.16, unless otherwise advised by the Member's Project Manager in writing.
- e) The Vendor shall furnish weekly status reports regarding a Change Order or Disputed Work, including such documentation as the Member may require in order to support all costs of the Change Order or Disputed Work. The Vendor agrees to maintain and furnish the Member with time and materials records in accordance with Article 2.10, Maintenance of Records; Inspection, Review and Audit, which substantiate the Vendor's costs for Disputed Work whether or not such time and materials rates are in accordance with Appendix D- Equipment, Components, Services Listing and Pricing Schedules.

ARTICLE 2.17 TERMINATION FOR CONVENIENCE BY THE MEMBER/SUSPENSION OF WORK

- a) The Member shall have the right, in its sole discretion, to postpone or suspend work or orders for Equipment or Services under this Agreement or to abandon or terminate this Agreement with thirty (30) days' written notice to Vendor and for any reason throughout the term of this Agreement, and such action shall in no event be deemed a breach of Agreement.
- b) In the event the Member exercises its right to postpone or suspend performance hereunder, or abandon or terminate this Agreement, the Member will provide the Vendor with Notice thereof. The Vendor shall, upon receipt of such Notice, unless otherwise directed in writing by the Member:
 - (i) stop work on the date specified in the Notice ;

(ii) take such action as may be necessary for the protection and preservation of the Member's materials and property, including data and other aspects of the Vendor's performance which are not completed;

(iii) cancel orders made by the Vendor in contemplation of providing any Equipment or Services to the Member;

(iv) assign to the Member and deliver to the Site or any other location designated by the Member any non-cancelable orders for material or Equipment that is not capable of use except in the performance of the Technical Requirements pursuant to this Agreement and has been specifically fabricated for the sole purpose of this Agreement;

(v) take no action which will increase the amounts payable by the Member under this Agreement;

(vi) take all steps necessary to assure a smooth transition to a new vendor or the Member;

c) In the event that the Member exercises its right to postpone, or suspend performance hereunder, or abandon or terminate this Agreement, the Member will pay only the items enumerated in subparagraphs (i) and (ii) below at the Vendor's actual cost or the fair and reasonable value consistent with Appendix D-Equipment, Components, Services Listing and Pricing Schedules, whichever is less:

(i) the Equipment and Services to the extent delivered or completed in accordance with this Agreement up to the date specified in the stop work Notice; and

(ii) non-cancelable material and Equipment that are not capable of use except in the performance of the Technical Requirements pursuant to this Agreement and has been specifically fabricated for the sole purpose of this Agreement but only to the extent that such materials and Equipment have actually been assigned and delivered to the Member in accordance with subparagraph (b)(iv) of this Article 2.17.

d) Any amounts payable to the Vendor hereunder shall be offset by all payments already made to the Vendor.

e) All payments made pursuant to this Article 2.17 shall be accepted by the Vendor in full satisfaction of all claims against the Member arising out of the postponement, or suspension of performance hereunder, or abandonment, or termination of this Agreement. In no event shall the Member be responsible for any indirect, consequential, incidental or special damages or any loss of business, goodwill, reputation, revenues or profits.

f) All payments pursuant to this Article 2.17 are subject to audit.

g) Upon such a postponement, suspension, abandonment or termination, the Vendor must within ten (10) Days deliver to the Member all records, documents and data in readable and useable formats and media, understandable to programmers of ordinary skill and industry knowledge, pertaining to the Technical Requirements performed under this Agreement.

h) Throughout the term of this Agreement, the Vendor must report to the Member any material

changes in the Vendor's or any Subcontractor's initial vendor responsibility disclosure(s). The Member shall have the right to terminate this Agreement at any time in the event the Member determines that the Vendor or any Subcontractor is non-responsible in accordance with the Member's responsibility guidelines or has failed to accurately disclose vendor responsibility information.

ARTICLE 2.18 SECURITY REQUIREMENTS

The Vendor agrees to ensure that all Vendor Parties comply with all security measures and internal security procedures identified as applicable by the Member whenever such individuals are on the Member's premises. Such measures may include, but are not limited to, obtaining special identification badges; background checks; traveling in clearly marked vehicles; parking in designated areas; reporting to the front desk or security desk of office buildings or toll facilities, and obeying any posted security and safety policies and regulations. The Vendor agrees that all Vendor Parties shall comply with the Member's network security policies identified as applicable by the Member. The Vendor agrees that all Vendor Parties shall comply with Member-specific security requirements included in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise provided in a Notice to the Vendor.

ARTICLE 3 - COMPENSATION

ARTICLE 3.01 PRICING OF EQUIPMENT AND SERVICES

- a) The Member may purchase the Equipment and Services, and license the Software in accordance with the provisions of Article 4, at prices as set forth in Appendix D- Equipment, Components, Services Listing and Pricing Schedules. The prices set forth in Appendix D-Equipment, Components, Services Listing and Pricing Schedules include the provision of all design/development costs; components; materials; testing; packaging; delivery, and any service costs necessary or incidental to the manufacture and delivery of the Equipment and installation of the Software.
- b) The Vendor may adjust prices only to the extent provided in Appendix D- Equipment, Components, Services Listing and Pricing Schedules and in accordance with price indices specified therein for Services.
- c) The Member shall pay the Vendor in accordance with the pricing schedule set forth in Appendix D-Equipment, Components, Services Listing and Pricing Schedules, and Vendor agrees to accept such amount as full compensation for such Equipment and Services. Such prices are all inclusive and no additional amounts will be paid to the Vendor for expenses or costs incurred in the performance or delivery of any items of work set forth in the Technical Requirements. The Member's obligation to pay the Vendor is contingent upon the Member's finding that the Vendor has performed in a competent and professional manner satisfactory to the Member and upon acceptance as may be provided for in accordance with the terms of this Agreement.
- d) A Change Order shall result in an equitable adjustment (increase, decrease or no change) to the compensation set forth herein, if applicable, representing the reasonable costs or the reasonable financial savings related to the Change Order, as determined by the Member, in accordance with Appendix D-Equipment, Components, Services Listing and Pricing Schedules, and approved by the

Member' Authorized Officer in advance. To the extent not provided in Appendix D-Equipment, Components, Services Listing and Pricing Schedules, the Vendor's reasonable costs related to the Change Order shall be limited to the cost of materials, including sales tax if payable by the Member, cost of delivery, and the cost of labor.

e) All prices in Appendix D-Equipment, Components, Services Listing and Pricing Schedules are net of sales and use taxes and any other taxes and duties and shall be FOB Destination, Freight Prepaid and Allowed for Continental U.S. delivery and in accordance with Article 10.05, Packing, Boxing, and Delivery Charges.

f) To the extent provided by Appendix A - E-ZPass Group Members Terms & Conditions, the Vendor shall be limited to a maximum amount payable under this Agreement.

ARTICLE 3.02 METHOD AND TIMES OF PAYMENT

To receive payment, the Vendor must submit a certified, itemized invoice to the Member documenting the Equipment delivered and Services rendered. Such invoice shall be in a form and contain such detail as are acceptable to the Member, as specified by the Member's Project Manager.

The Vendor shall send invoices and associated back-up documentation in duplicate as indicated in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise indicated in a Notice to the Vendor. Compliance with the Member's invoice and documentation requirements shall be required as a condition for payment by the Member. Invoices shall be submitted no more frequently than monthly for any Equipment and Services provided to the Member in the preceding month, except as otherwise provided in Appendix A - E-ZPass Group Members Terms & Conditions, or in a Notice to the Vendor.

ARTICLE 3.03 TAXES

The Vendor shall be responsible for franchise fees and taxes levied against the Vendor.

To the extent that the Member is exempt from sales and use taxes on all personal property and services it purchases or uses as may be further provided in Appendix A - E-ZPass Group Members Terms & Conditions or in a Notice to the Vendor, the Vendor shall not include any charges representing such taxes on any invoices hereunder.

ARTICLE 3.04 TIMELINESS OF PAYMENT

Timeliness of payment and any interest to be paid to the Vendor for late payment shall be governed by the Member-specific prompt payment provisions, if any, included in Appendix A - E-ZPass Group Members Terms & Conditions or in a Notice to the Vendor. Unless provided otherwise in Appendix A - E-ZPass Group Members Terms & Conditions or in a Notice to the Vendor, payment terms shall be net 30 Days from the invoice date.

ARTICLE 3.05 MONIES WITHHELD

a) The Member may withhold payment hereunder when the Member shall have reasonable grounds for believing that:

(i) The Vendor will be unable to provide the Equipment or perform the Services fully and

satisfactorily within the time fixed for performance;

(ii) A claim exists or may exist against the Vendor or the Member arising out of the negligence of any Vendor Party or the Vendor's breach of any provision of this Agreement; or

(iii) If there is a discrepancy between the Vendor's invoices and the associated documentation, provided that the Member has notified the Vendor of such discrepancy.

b) Any amount so withheld may be retained by the Member for such period as it may deem advisable to protect the Member against any loss and may, after Notice to the Vendor, be applied in satisfaction of any such claim. The Member shall not pay interest on any amounts withheld under this Article 3.05.

c) This Article is intended solely for the benefit of the Member and, except as otherwise provided by law, no person shall have any right or claim against the Member by reason of the Member's failure or refusal to withhold monies; the Member's withholding of monies; the Member's application of any withheld monies; or the Member's failure to apply withheld monies. This Article is not intended to limit or in any way prejudice any other right or remedy of the Member.

ARTICLE 4 - INTELLECTUAL PROPERTY PROVISIONS

ARTICLE 4.01 PROPRIETARY RIGHTS

a) The Vendor hereby acknowledges and agrees that the Member retains all right, title and interest in and to all ideas, knowledge, information, data, materials, inventions, discoveries, works, know-how, trade secrets, processes, procedures, techniques, designs, and other tangible or intangible subject matter, including any and all specifications and documentation comprising or relating to any of the foregoing, and all copies and other embodiments thereof, that are in the broadest sense disclosed, provided, or made available, directly or indirectly, by the Member to any of the Vendor Parties in connection with this Agreement (including any activities pursuant or relating to this Agreement), whether in written, oral or other tangible or intangible form, irrespective of whether or not incorporated in any of the Member Owned Inventions (as defined in subparagraph (b) of this Article 4.01), and including all patent, copyright, trade secret and other intellectual property and proprietary rights therein, (collectively, "Member Materials"). Such Member Materials shall include any and all modifications, improvements, adaptations, revisions, updates, releases, new versions, derivative works, and documentation (including any specifications, copies, notes, summaries or analyses) comprising, based on, derived from, or related to any Member Materials, including any of the foregoing that is conceived, discovered, invented, created, developed or made by any of the Vendor Parties. None of the Vendor Parties shall have any proprietary interest in such Member Materials. None of the Vendor Parties may use, reproduce, publish or distribute any Member Materials for any purpose other than the performance of the Technical Requirements pursuant to this Agreement without the prior written consent of the Member.

b) The Member shall have all right, title and interest in and to any and all ideas, knowledge, information, data, materials, inventions, discoveries, works, know-how, trade secrets, processes, procedures, techniques, designs, and other tangible or intangible subject matter, all specifications

and documentation comprising or relating to any of the foregoing, and all copies and other embodiments thereof, originated, conceived, discovered, invented, created, developed or made, and any and all patent, copyright, trade secret or other intellectual property or proprietary rights thereby or otherwise acquired, by or on behalf of any of the Vendor Parties in connection with the performance of this Agreement, whether in written, oral or other tangible or intangible form (collectively, "Member Owned Inventions"). Such Member Owned Inventions shall include any modifications, improvements, adaptations, revisions, updates, releases, new versions, derivative works, and documentation (including any specifications, copies, notes, summaries or analyses) comprising, based on, derived from, or related to any Member Owned Inventions. Accordingly, none of the Vendor Parties shall have any proprietary interest in such Member Owned Inventions. Member Owned Inventions may not be utilized, reproduced, published or distributed by or on behalf of any of the Vendor Parties for any purpose other than the performance of the Technical Requirements pursuant to this Agreement without the prior written consent of the Member.

c) Submission or distribution by the Vendor Parties of Member Materials or Member Owned Inventions solely (i) to meet official regulatory requirements, or (ii) for purposes of the performance of the Technical Requirements, shall not be construed as publication in derogation of the Member's copyrights or other proprietary rights in such Member Materials or Member Owned Inventions.

d) In furtherance and not limitation of the Member's rights pursuant to subparagraphs (a) and (b) above, the Vendor shall, and hereby does, irrevocably assign, and shall, within ten (10) days of the Agreement Date, or thereafter contemporaneously with their employment or engagement by the Vendor, cause each of the other Vendor Parties to irrevocably assign, to the Member and its assigns, Vendor's and each of such other Vendor Parties' entire right, title and interest in and to the Member Materials (to the extent they may have any) and the Member Owned Inventions then in existence or thereafter generated, including all patent, copyright and other intellectual property rights in respect thereof, together with the exclusive rights to petition, sue and otherwise seek and recover damages, profits and any other remedy (monetary, injunctive, declaratory or other), for any past, present or future infringement, conversion or misappropriation of, or any other injury, offense, violation, breach of duty or wrong with respect to, the Member Materials (to the extent they may have any) or the Member Owned Inventions, or any right, title or interest with respect thereto.

e) The Member shall, in addition to its rights, titles and interests pursuant to subparagraphs (a), (b) and (d) of this Article 4.01 and its license rights pursuant to Article 4.02, Licenses, have good and valid title to and unrestricted ownership of, and shall enjoy all rights of title and ownership, whether inherent, implied or other, that are appurtenant to, any articles or items of Equipment, documentation, materials or other tangible matter purchased by or provided to the Member pursuant to this Agreement, whether directly or indirectly from any of the Vendor Parties, without requirement of any payment by the Member other than as specifically provided herein. For clarity, and without limitation of any of the Member's rights, titles or interests at law or hereunder (including, without limitation, the Member's intellectual property rights), the rights of title and ownership described in this Article 4.01(e) refer to such rights as pertain to or arise from the transfer to the Member, or the Member's title in or ownership, of the tangible articles or items themselves as distinguished from the intellectual property rights therein.

f) The Vendor shall, and shall cause the other Vendor Parties to, promptly and fully provide Notice to

the Member of any existing or potential claims or disputes of which it or any of them has knowledge that relate to any Member Materials or Member Owned Inventions, or other intellectual property, including with respect to any infringement, misappropriation or other violation of any rights in respect of intellectual property comprising or relating to any such Member Materials, Member Owned Inventions or other intellectual property, or that is generated, used, developed, provided, licensed or acquired (by assignment, license or otherwise) in connection with this Agreement.

g) In furtherance and not limitation of the assignments granted pursuant to subparagraph (d) of this Article 4.01, the Vendor shall, and shall cause each of the other Vendor Parties to, provide to the Member any and all assistance required to record, perfect, implement, protect or enforce the rights, titles and interests of the Member pursuant to this Agreement, including, but not limited to, the prompt execution and delivery, upon Member's request, of all assignments, instruments and other documents, and undertaking of all such acts, as may be required by the Member to evidence, record, perfect, implement, protect, or enforce the Member's intellectual property or proprietary rights in the Member Materials or the Member Owned Inventions. Such assignments, instruments and other documents shall be in such form as shall be reasonably requested by the Member, and such assistance may include filing applications for patents and copyright registration in the name of the Member and making all other necessary or appropriate filings with governmental entities so as to establish the Member's exclusive ownership of, and secure and maintain maximum protection for, Member's right, title and interest in and to the Member Materials and the Member Owned Inventions.

ARTICLE 4.02 LICENSES

Note to Prospective Proposers: Proposals are to be submitted -with a proposed License Agreement - which must meet the stated minimum requirements of this Article 4.02 or provide more favorable terms to the E-ZPass Group members than the stated minimum requirements. The proposed License Agreement shall be submitted as part of the Proposer's response to Section 2.8 of Part IV to be evaluated as indicated in Sections 1.11 and 2.8 of this RFP.

a) The Vendor shall grant to the Member an unlimited, fully-paid-up, royalty-free, perpetual, universal, irrevocable, non-exclusive license to use, maintain, disclose, duplicate, modify, adapt, improve, and use all resulting versions, modifications, adaptations and improvements of, and/or permit any other person or entity providing services to the Member to do any of the foregoing with respect to, any and all Equipment to operate the Equipment, including any associated systems, processes, methods, applications, technical data specifications and other documentation necessary or useful for such operations. The license shall include the right to make use of any and all Software and Hardware and documentation to operate the Equipment.

b) The license shall encompass use by the Member of the Equipment and all other elements of the Equipment, in whole or in part, including use of any and all individual components thereof, that have directly or indirectly been purchased or obtained by the Member from the Vendor, in each case alone, or in configuration, combination or conjunction with, or as part of:

(i) the Equipment, in whole or in part, or any other systems, processes or methods, in whole or in part; or

(ii) any software, equipment, devices, processes, methods, technologies, applications, systems or system components, in whole or in part, of whatever make, manufacture or model, that are not directly or indirectly purchased or obtained by the Member from the Vendor, subject to Article 7.10, Interface with Non-Vendor Equipment.

c) The license provided hereunder shall cover the full definition of Software, including programs directly owned and/or developed by the Vendor, programs owned and/or developed by any subcontractors, and programs of any third parties which the Vendor integrates, bundles or provides as part of the Equipment. The Vendor shall secure all required licenses from any third-party providers of Software, and ensure that such licenses are transferable to and assignable by the Member, without additional compensation. The Vendor shall maintain copies of the license agreements it obtains from such third-party providers of Software. The Vendor shall also maintain the computer programs, disks and documentation for all Software it obtains from third parties.

d) The license to use Software shall be in both source and object code form with respect to application system software and in object code form only with respect to operating system software.

e) The Vendor shall grant to the Member an unlimited, fully-paid-up, royalty free, perpetual, universal, irrevocable license to use all commands and protocols originated, conceived, discovered, invented, created, developed or made by any of the Vendor Parties that are useful for any present or future Equipment used by the Member, including the right to provide the commands and protocols to third party Contractors as needed for those future Equipment to function. The foregoing license shall be exclusive to the E-ZPass Group Members with respect to all such commands and protocols as are originated, conceived, discovered, invented, created, developed or made by any of the Vendor Parties specifically for, or at the request or direction of, the Member or any of the other E-ZPass Group Members, and shall be otherwise nonexclusive.

f) The license provided hereunder shall encompass any and all documents and materials comprising or containing information relating to any of the Equipment or any component, aspect or feature thereof or of the Equipment, whether with respect to design, structure, content, expression, composition, performance, function, operation, use or otherwise, and including, to the extent the same may exist: specifications; technical data; Member's manuals; user's manuals; training materials; guides; commentaries; listings; design documents; flow charts; data flow diagrams; control files and scripts used to compile, link load or make applications or other system features or components; test scripts, test plans and test data; and other documents or materials that explain the performance, function, operation or use of individual Software or the interface or interaction of Software within the Equipment>

g) The Vendor shall execute and provide the Member with the foregoing licenses upon execution of this Agreement, pursuant to the terms of the license agreement annexed hereto as Appendix B - License Agreement.

h) For clarity, the term "irrevocable", when referring to the rights and licenses granted pursuant this Article 4.02, Licenses shall include the continuation of the right to exercise all such rights and licenses irrespective of any expiration or termination of this Agreement, or any breach or default with respect to the terms or conditions hereof, and the term "perpetual", when referring to any such license, shall mean a license for a term comprised of the full duration of such period, if any, during

which the subject matter of the license is claimed or otherwise covered by any colorable patent, trade secret, copyright or other right that conceivably could, but for the license, be infringed, misappropriated or otherwise violated by any of the activities authorized by the license or fairly implied thereby.

i) All rights and licenses granted by the Vendor to the Member under or pursuant to the license agreement are, and shall otherwise be deemed to be, licenses for rights to “intellectual property” for purposes of Section 365(n) of the United States Bankruptcy Code (the “Code”). The parties hereto agree that the Member, as a licensee of such rights under the license agreement, shall retain and may fully exercise all of its rights and elections under the Code. The parties hereto further agree that, in the event of the commencement of bankruptcy proceedings by or against the Vendor under the Code, the Member shall be entitled to retain all of its rights under the license agreement, subject to the Member’s compliance with the terms of the license agreement. The license agreement shall contain an express provision confirming the foregoing.

ARTICLE 4.03 SCOPE OF LICENSES

a) All rights and licenses granted to the Member under this Agreement shall be exercisable by the Member and each of the persons and entities as the Member may permit to exercise its rights or licenses hereunder, and their respective successors and assigns, and, for the avoidance of doubt, shall include without requirement of any payment or provision of any consideration other than or in addition to that which is expressly specified by this Agreement, the right of the Member and each other person or entity referred to in this subparagraph:

(i) to utilize the Equipment (including all Equipment or related documentation), in whole or in part, in connection with Services provided by or to the Member or such other persons or entities, including for purposes of technical support, maintenance or repair;

(ii) to make multiple copies of the Software and related documentation for purposes of the exercise of the Member’s rights and licenses hereunder;

(iii) to use the Software and related documentation on or in connection with multiple processors, components obtained by or on behalf of the Member from the Vendor or from third parties, and systems (Equipment) utilized by the Member or any person or entity providing Services to or on behalf of the Member;

(iv) to maintain and modify the Software, and to use the resulting versions and modifications thereof;

(v) to sell or distribute Transponders or any other user technology, device or method permitting public access to and use of the user interface of the Equipment, to any person or entity; and

(vi) to exercise any and all such rights and licenses under this Agreement through the Services of its employees, agents, independent Contractors or subcontractors, or such other persons or entities as it may employ or engage in its own discretion, and to disclose the Software and related documentation, in whole or in part, to such persons or entities for such purposes.

b) For the avoidance of doubt, nothing in this Agreement shall restrict or preclude the Member from

providing to any other person or entity, or any such other person or entity from using, any of the Equipment or other materials provided to the Member hereunder by the Vendor, in connection with the provision of any products or Services to or on behalf of the Member, or to any person or entity providing Services to or on behalf of the Member, in connection with the Equipment.

ARTICLE 4.04 INTELLECTUAL PROPERTY REPRESENTATIONS

The Vendor hereby represents warrants and covenants that:

- a) Other than with respect to the Member Materials and Member Owned Inventions (all right, title and interest in which shall vest in Member), and subject to Member's rights and licenses pursuant to Article 4.01, Proprietary Rights, Article 4.02, Licenses, and Article 4.03, Scope of Licenses, the Vendor is and will be the sole owner of, or otherwise control, all intellectual property rights in and to the Equipment, and all inventions, technologies, works and other proprietary subject matter employed in providing Services, pursuant to this Agreement, including all patent, copyright, trade secret and other intellectual property rights with respect to, without limitation, all Software, other Equipment, related documentation, analyses, firmware, tools, articles, appliances, structures, materials, devices, applications, methods, ways, processes, systems and the like comprised thereby.
- b) Except for the sale or public disclosure or distribution of the Equipment which has been sold, disclosed or distributed prior to the date of this Agreement, no elements of the Equipment provided, or of any inventions, technologies, works or other proprietary subject matter employed to provide the Services, pursuant to this Agreement have been or will be disclosed, distributed or published under circumstances that would cause a loss of any intellectual property rights therein.
- c) The Vendor has and will have the full and sufficient right, power and authority:
 - (i) to assign and grant all rights and licenses (including all rights to authorize the grant of permissions and authorizations under such licenses) herein assigned or granted by the Vendor to the Member in respect of the Equipment, including all Equipment necessary to operate the Equipment and any associated systems, processes, methods, applications, technical data, specifications and other documentation employed in connection with such operations, and all inventions, technologies, works and other proprietary subject matter employed to provide Services pursuant to this Agreement, including any of the foregoing that existed prior to the date of this Agreement; and
 - (ii) to provide to the Member all Equipment and associated systems, processes, methods, applications, technical data, specifications and other documentation needed to operate the Equipment in accordance with the Technical Requirements and warranties set forth in this Agreement, and any other materials provided by or on behalf of the Vendor hereunder, each of which is and shall be free and clear of all encumbrances, mortgages, deeds of trust, pledges, security interests, options, rights of first refusal, licenses, sublicenses, agreements, grants, assignments, transfers, set overs, conveyances, leases, adverse rights, title, interests or claims, imperfections or defects in title, liens, assessments, restrictive covenants, encroachments, burdens or charges, or any liability, debt, duty or obligation, or any third- party rights, claims or interests of any kind.
- d) None of the Vendor Parties has received any communication respecting any claim, investigation,

suit, action or proceeding pending or threatened against any of it, or any of its affiliates, customers, licensees, contractors, subcontractors or suppliers, which (i) involves any allegation of infringement, misappropriation, dilution, unauthorized use or violation by any of them of any patent, copyright, trade secret or other intellectual property right in relation to the Equipment, in whole or in part, any Equipment used to operate the Equipment, or any associated systems or components of the Vendor, or the use of any of the foregoing, or (ii) challenges the ownership, use, protectability, registrability, validity or enforceability of any patent, copyright, trade secret or other intellectual property right of the Vendor or any of its affiliates, contractors, subcontractors or suppliers in relation to any Equipment used to operate the Equipment, or any associated systems or components of the Vendor. The Vendor further represents that there is no such claim, investigation, suit, action or proceeding pending, threatened or asserted, and that there is no valid basis for any such claim, investigation, suit, action or proceeding. In the event a Vendor Party is unable to make this representation, the Vendor Party shall disclose and provide an explanation of all claims, investigations, suit, etc., that meet the criteria above.

e) The Member shall quietly and peacefully possess and enjoy the use of the Equipment in accordance with the provisions of this Agreement. In furtherance and not limitation of the foregoing, no possession of, or exercise of any other rights or licenses with respect to, any Equipment or other materials provided hereunder will be adversely affected, interrupted or otherwise disturbed by any of the Vendor Parties, or any person or entity asserting a claim under or through any of the Vendor Parties.

f) No exercise, in accordance with the terms and conditions of this Agreement, of any of the rights or licenses hereunder with respect to the Equipment or other subject matter provided pursuant hereto will constitute or result in any infringement, misappropriation, dilution, unauthorized use or violation of any intellectual property or proprietary rights of any person or entity.

g) No claims have been made against any third party by, under or through any of the Vendor Parties, alleging the infringement, misappropriation, dilution, unauthorized use, or violation of any intellectual property rights in respect of the Equipment, or any associated systems or components of the Vendor, in whole or in part; to the knowledge of the Vendor, no third party is infringing, misappropriating, diluting, misusing, or violating any of such intellectual property rights.

h) All Software provided by or on behalf of the Vendor shall at all times be:

(i) written in a compiled higher level language that is commercially available and for which software tools are available;

(ii) capable of being copied, modified, maintained and repaired by the Vendor Parties, and by the Member or any person or entity providing Services to or on behalf of the Member to the extent permitted by this Agreement; and

(iii) free of any instructions, devices, codes, methods or techniques:

(A) that are designed to or can threaten, infect, erase, assault, vandalize, defraud, disrupt, damage, disable, alter, inhibit or shut down the Equipment, or any Software, other Equipment, system, operating environment, or other component, aspect or feature of the Equipment (including any

other software, equipment, data or libraries), or otherwise prevent the Member or any person or entity providing Services to or on behalf of the Member from utilizing the same, in whole or in part, or cause the same to be inoperable or incapable of processing accurately, in accordance with the Technical Requirements and warranties set forth in this Agreement, (hereinafter "Virus");

(B) that are designed or intended to prevent or limit use by the Member, or any person or entity providing Services to or on behalf of the Member, of the Equipment, or any Software, other Equipment, system, operating environment, Equipment (including any other software, equipment, data or libraries), or to cause the same to cease functioning, (hereinafter "Disabling Device"); or

(C) that are designed or intended to allow access to any of the computing systems of the Member or any person or entity providing Services to or on behalf of the Member without their knowledge, or contrary to their system connectivity policies or procedures or any other documents describing any of their system security policies and procedures that are included in Appendix A - E-ZPass Group Members Terms & Conditions or otherwise may be provided to any of the Vendor Parties (hereinafter, "Trap Doors").

i) The Vendor shall at all times maintain the following elements of system security:

(i) All connectivity by the Vendor Parties to the computing systems or networks of the Member or any person or entity providing Services to or on behalf of the Member, and all attempts at establishing such connectivity, shall only occur through the security gateways and firewalls of the Member or such person or entity, and shall be in compliance with all system security policies and procedures that are included in Appendix A - E-ZPass Group Members Terms & Conditions or otherwise may be provided to any of the Vendor Parties;

(ii) The Vendor Parties shall not access and shall not permit unauthorized persons to access, the computing systems or networks of the Member or any person or entity providing Services to or on behalf of the Member without their express prior written authorization, and any such actual or attempted access shall be in compliance with the terms and conditions of such authorization;

(iii) The Vendor Parties shall use the latest available, most comprehensive Virus detection or scanning program as mutually agreed by the Vendor and the Member prior to any attempt to access any of the computing systems or networks of the Member or any person or entity providing Services to or on behalf of the Member and, upon detecting a Virus, shall immediately cease all attempts to access such systems or networks and shall not resume such attempts until such Virus has been eliminated;

(iv) The Vendor shall notify the Member immediately (to be followed by Notice) if the Vendor suspects, reasonably believes, or becomes aware of the existence of, any Virus, Disabling Device or Trap Door in the Equipment, any Software, or any component, aspect or feature of any of the foregoing;

(v) The Vendor shall also notify the Member promptly (to be followed by Notice) if it identifies any elements of the Equipment or any Software that would make the Equipment or any Software, or any component, aspect or feature of any of the foregoing, susceptible to known Viruses or to Viruses the Vendor Parties become aware of, and

- (vi) The Vendor shall appoint one Vendor employee to respond to the Member's inquiries regarding computer security.
- j) All documents and materials comprising or containing information relating to any of the Equipment or any components, aspect or feature thereof or of the Equipment provided hereunder shall in all cases: (i) fully describe in all material respects the Equipment; (ii) be fully applicable to the operation and use of the Software with the other Equipment; and (iii) identify and reflect any particular features of the Equipment that may affect the normal use or operation of the Equipment. The parties expressly understand and agree that nothing in this Article 4.04 is intended or shall be construed to void, limit, qualify or otherwise derogate from any of Vendor's other representations, warranties or other obligations hereunder.
- k) Except as expressly set forth in Appendix C- Conformed Technical Requirements, none of the Software includes or will include any open source, shareware, freeware code or other freely available software. None of such Software or files listed in the Vendor's Appendix C – Conformed Technical Requirements, as open source, shareware, freeware code or other freely available software has been or will be modified by or on behalf of the Vendor or its Subcontractors or Suppliers, or incorporated in whole or in part into the code of any of the Software. To the extent that any of such Software or files listed in Appendix C- Conformed Technical Requirements are currently or have been redistributed by the Vendor or any such other person or entity in connection with any Software, they are and have been re- distributed only as independent files that are linked to, rather than incorporated in the code of, the Software.

ARTICLE 5 - INSURANCE AND FINANCIAL ASSURANCE REQUIREMENTS

ARTICLE 5.01 GENERAL INSURANCE REQUIREMENTS

During the term of the Agreement, the Vendor at its sole cost and expense shall provide commercial insurance of such type and with such terms and limits as may be reasonably associated with the Agreement. As a minimum, the Vendor shall provide and maintain the coverage and limits, as set forth in the Insurance Requirements for the E-ZPass Group Members.

ARTICLE 5.02 FINANCIAL ASSURANCE

The Vendor shall comply with all Member specific financial requirements as set forth in Appendix A - E-ZPass Group Members Terms & Conditions. The Member shall be responsible for the cost of any such financial requirement, as set forth in Appendix D, Equipment, Components, Services Listing and Pricing Schedules.

ARTICLE 6 - CONFIDENTIALITY, ETHICS AND REPRESENTATIONS

ARTICLE 6.01 CONFIDENTIALITY

- a) For purposes of this Article 6.01:
- (i) Confidential Information includes any and all information and materials provided by the Member to the Vendor Parties or otherwise received by the Vendor Parties directly or indirectly from the Member in connection with the Technical Requirements performed under this Agreement, or

generated in connection with the Equipment and Services, Technical Requirements or this Agreement, with the following exceptions:

A) information and materials which, at the time of the disclosure to the Vendor, or at the time of the creation of such information or materials, as the case may be, are already in the public domain or at any time thereafter become publicly known through no wrongful act or omission of any of the Vendor Parties;

B) information and materials which, at the time of the disclosure to the Vendor, or at the time of the creation of such information or materials, as the case may be, are already known by the Vendor free of any confidentiality obligation;

C) information and materials which are information or materials that the Member has approved in writing for disclosure;

D) information and materials which, at the time of the disclosure to the Vendor, or at the time of the creation of such information or materials, as the case may be, are developed by or on behalf of the Vendor independent of any information or materials furnished directly or indirectly by the Member or otherwise received by the Vendor Party under or in connection with this Agreement; or

E) information and materials which are received from a third party by the Vendor whose disclosure does not violate any confidentiality obligation.

(ii) Anything in this Article 6.01 to the contrary notwithstanding, all information and materials constituting or underlying Member Materials or Member Owned Inventions, as such terms are defined in Article 4.01, Proprietary Rights, shall be deemed to be Confidential Information.

b) The Vendor shall safeguard, and shall cause each of the other Vendor Parties to safeguard, the confidentiality of Confidential Information with at least the same level of care and security, using all reasonable security measures, devices and procedures, that it uses to protect its own trade secrets and confidential information, provided that the Vendor shall comply and shall cause each of the other Vendor Parties to comply, in all respects with the requirements of subparagraph (j) of this Article 6.01. In this regard, reasonable security measures, devices and procedures must include standard techniques for ensuring data security, such as secure passwords and encryption.

c) The Vendor may use Confidential Information solely for the purposes of performing the Technical Requirements for the Member pursuant to this Agreement. Subject to the limited exception set forth in subparagraph (d), below, the Vendor shall not make copies of any Confidential Information or sell, transfer, publish, disclose, display, license or otherwise make available to others any part of such Confidential Information without the prior written consent of the Member or if the Confidential Information is not owned by the Member, without the prior written consent of the owner thereof. (The Vendor acknowledges that a E-ZPass Group Member is a potential owner thereof.)

d) The Vendor may share Confidential Information with third parties that agree in writing to the confidentiality provisions of this Agreement and are necessary to the Vendor's performance of the Technical Requirements for the Member pursuant to this Agreement; however, the Vendor shall share only that Confidential Information that is necessary to the third party's development of its contribution to the Vendor's Technical Requirements for the Member pursuant to this Agreement. In

the event a third party with whom the Vendor is sharing Confidential Information is not a subcontractor, the Vendor shall require any such third party to sign a nondisclosure agreement designating the Member as a third party beneficiary thereunder. The Vendor agrees to enforce these nondisclosure agreements when necessary to protect the confidentiality of Confidential Information.

e) Disclosure of Confidential Information by the Member to the Vendor shall not convey to the Vendor any right or interest in such Confidential Information; the Member shall retain all right and title to such Confidential Information at all times.

f) In the event any of the Vendor Parties is requested or required by any court, or legislative or administrative body, (by oral questions, interrogatories, request for information or documents, subpoena, civil investigations, demand or similar process or in any litigation) to disclose any of the Confidential Information, the Vendor shall promptly notify (and thereafter provide Notice to) the Member of the attempt to compel the disclosure of such Confidential Information in order to afford the Member an opportunity to seek an appropriate protective order or other appropriate remedy at the Member's sole cost and expense and/or waive compliance with the provisions of this Agreement. In the event that such protective order or other remedy is not obtained by the time the disclosure is compelled, or the Member grants a waiver hereunder, the Vendor Party(ies) requested or required to provide such disclosure may furnish that portion of the Confidential Information which it is legally compelled to disclose without the Vendor being deemed to be in violation of this Article 6.01.

g) The Vendor Parties may divulge and use Confidential Information only as expressly permitted by this Article 6.01, and the Vendor shall advise, and ensure that each of the other Vendor Parties shall advise, each person to whom or which it may directly or indirectly expose to any Confidential Information of such person's obligation to keep such Confidential Information confidential, and shall promptly advise, and cause the other Vendor Parties to promptly advise, the Member in writing if any of the Vendor Parties shall learn of any unauthorized use or disclosure of Confidential Information. The Vendor shall provide, and cause other Vendor Parties to provide, its full cooperation and assistance to the Member as necessary to ensure the confidentiality of Confidential Information.

h) Unless the Member shall otherwise request in writing, upon the completion of the Technical Requirements to be performed hereunder, the Vendor shall immediately return, or cause to be returned, to the Member all Confidential Information existing in tangible form, and all copies, derivatives, adaptations and other embodiments of such Confidential Information, within the possession or control of any of the Vendor Parties, and no such copies or other tangible embodiments of such Confidential Information or any derivatives or adaptations thereof shall be retained by any of the Vendor Parties without the prior written consent of the Member. The above-required return of Confidential Information shall be accompanied by a certificate evidencing compliance with this subparagraph signed by an officer of each of the Vendor Parties to which Confidential Information has been disclosed, provided or otherwise made available.

i) It is understood and agreed that in the event of a breach of this Article 6.01, damages may not be an adequate remedy and the Member shall be entitled to injunctive relief to restrain any such breach or threatened breach in addition to any other remedies provided in this Agreement or available under applicable law.

j) The Vendor shall comply and shall cause each of the other Vendor Parties to comply, with privacy and security requirements identified in the Technical Requirements; with applicable laws, statutes, and regulations of the jurisdiction in which the Member is located governing protection of data privacy, privacy, and personal information; and with any Member specific policies included in Appendix A - E-ZPass Group Members Terms & Conditions or otherwise provided by Notice to the Vendor.

k) To the extent that the Member is a governmental entity, or operates facilities under an agreement with a governmental entity, the Member may be subject to open or public records laws, rules and regulations or may have adopted policies or guidelines incorporating open or public records principles. If so, the Vendor further acknowledges the following:

i) This Agreement is a public Agreement. As such, the Member may be required by open or public records laws, rules or regulations, or by Member policies or guidelines incorporating open or public records principles, to make such Agreement and all information and materials received from any of the Vendor Parties available for public inspection on demand, unless such Agreement, materials and information are specifically exempted from public disclosure by the applicable open or public records laws, rules and regulations or Member policies or guidelines.

ii) Accordingly, the Member shall have no liability whatsoever to any of the Vendor Parties by reason of disclosure, of any information or materials provided to it by any of the Vendor Parties, pursuant to the applicable open or public records laws, rules and regulations or Member policies or guidelines incorporating open or public record principles.

iii) If the Vendor desires to restrict public dissemination of any materials or information provided to the Member hereunder or otherwise in connection with this Agreement on the grounds that the Vendor reasonably considers them to contain proprietary information or trade secrets that are exempted from public disclosure, the Vendor shall designate each page of all such materials with a stamp, watermark, or other marking indicating that the Vendor considers the material contained on that page to be proprietary information or trade secrets and that the material should not be subject to public disclosure.

iv) The Member reserves the right to make its own, independent determination as to whether material or information so marked is proprietary information or trade secrets and to give proprietary treatment only to that material or information which it has determined to be proprietary.

v) If any person, entity, or public authority brings a claim or action against the Member seeking to compel the disclosure of any material or information, that the Vendor has requested be exempt from public disclosure because it is proprietary or contains trade secrets, upon Notice from the Member the Vendor shall indemnify the Member upon demand for any and all defense costs, fines, penalties, or other costs or expenses of any nature that the Member may incur in the defense of any such claim or action.

ARTICLE 6.02 PROHIBITION ON GIFTS

a) The Vendor represents and warrants that no payment, gift or thing of value, including but not

limited to money, stocks, offers of employment for an individual or his or her immediate family member, or consulting or professional services, has been offered, made, given or promised by or on behalf of any of the Vendor Parties, to any official, director, officer, or employee of the Member or any immediate family member of any official, director, officer, or employee of the Member. The Vendor acknowledges that the Member has relied upon this representation.

b) In addition to the foregoing, the Vendor warrants that no gratuities, payments, offers to pay anything, money, or benefit of any nature will be offered, made, given or promised, to any official, director, officer, or employee or any immediate family member of any official, director, officer, or employee of the Member for any reason whatsoever, including but not limited to favorable treatment in connection with any Member procurement.

c) The Vendor represents it has complied with any additional Member requirements regarding prohibitions on gifts and the like, to the extent provided in Appendix A - E-ZPass Group Members Terms & Conditions and in any Notices to the Vendor.

d) For a breach or violation of such representations and warranties, upon a finding by the Member of default by the Vendor, the Member shall have the right to recover all monies paid hereunder and the Vendor shall not make claim for, or be entitled to recover, any sum or sums due hereunder. This remedy, if effected, shall not constitute the sole remedy afforded for falsity or breach, nor shall it constitute a waiver of the Member's right to claim damages or refuse payment or to take any other action provided for by law or pursuant to this Agreement.

ARTICLE 6.03 CONFLICT OF INTEREST

With respect to the Vendor Parties, the Vendor represents and warrants that neither the Vendor nor any Vendor Party nor any of their directors, officers, members, partners or employees, has any interest nor shall they acquire any interest, directly or indirectly, which would or may conflict in any manner or degree with the performance of the Technical Requirements pursuant to this Agreement. The Vendor further represents and warrants that no person having such interest shall be employed or engaged by the Vendor Parties to perform the Technical Requirements pursuant to this Agreement.

For a breach or violation of such representations and warranties, upon a finding by the Member of default by the Vendor, the Member shall have the right to recover all monies paid hereunder and the Vendor shall not make claim for, or be entitled to recover, any sum or sums due hereunder. This remedy, if effected, shall not constitute the sole remedy afforded for falsity or breach, nor shall it constitute a waiver of the Member's right to claim damages or reuse payment or to take any other action provided for by law or pursuant to this Agreement.

ARTICLE 6.04 ETHICS

During the term of this Agreement, none of the Vendor Parties shall engage any person who is or has been at any time in the employ of the Member or any other legal entity specifically designated by the Member in Appendix A - E-ZPass Group Members Terms & Conditions or otherwise provided by Notice to the Vendor without the written consent of the Member. The Member may request that the Vendor provide it with whatever information the Member deems appropriate about such person's

engagement, work cooperatively with the Member to solicit advice from other legal entities, and, if deemed appropriate by the Member, instruct such person to seek the opinion of other entities. The Vendor agrees that any such employee assigned to perform work under this Agreement shall be assigned in accordance with provisions of any laws, rules, regulations, and guidelines identified by the Member as applicable.

The Vendor further expressly agrees to comply, and to cause the other Vendor Parties to comply, with the laws of the state(s) in which the Member's facilities are located and the policies of the Member regarding the ethical conduct of employees and the code of ethics, as may be included in Appendix A - E-ZPass Group Members Terms & Conditions, or in a Notice to the Vendor.

ARTICLE 6.05 VENDOR REPRESENTATIONS

The Vendor represents the following:

- a) The Vendor is a legal entity duly organized, existing and in good standing under the laws of those jurisdictions where the ownership of the Vendor's assets or the conduct of its business require the Vendor to be so qualified.
- b) The Vendor is qualified and registered to do business in the jurisdiction(s) in which the Member's facilities are located, and is in good standing as a foreign or domestic legal entity under the laws of the jurisdiction(s) in which the Member's facilities are located. The Vendor is subject to suit in the jurisdiction(s) in which the Member's facilities are located in North America and any such judgment and resulting ruling(s) will be honored by courts in the jurisdiction in which the legal entity of the Vendor is located.
- c) There is no claim, investigation, suit, action, or proceeding pending, threatened, or asserted against or affecting the Vendor before or by any court, administrative agency or other governmental entity; and, there is no valid basis for any such claim, investigation, suit, action, or proceeding which will in any way impair the Vendor's ability to perform any of its obligations pursuant to this Agreement or which otherwise brings into question the enforceability or validity of the transactions contemplated by this Agreement.
- d) The Vendor has and will have the full right, power and authority to execute and deliver this Agreement and each other agreement, document, instrument or certificate contemplated by this Agreement or required by this Agreement to be executed by the Vendor, and to fully perform its obligations hereunder and thereunder. The Vendor's execution, delivery, and performance pursuant to this Agreement has been duly authorized by all appropriate governing action on its part, and this Agreement and each other agreement, document, instrument, or certificate contemplated by this Agreement or required by this Agreement constitute the legal, valid, and binding obligations of the Vendor enforceable against it in accordance with the terms hereof and thereof.
- e) Neither the Vendor's execution and delivery of this Agreement, nor the performance by the Vendor of the Technical Requirements hereunder, nor compliance by the Vendor with the provisions hereof, do:
 - (i) conflict with or violate any requirement of any applicable law, judgment, order, writ, injunction, decree, rule or regulation of any court, administrative agency or other governmental entity;

- (ii) conflict with, violate or result in a breach of any of the provisions of the articles of incorporation, bylaws or any comparable charter or organizational documents of the Vendor; or
 - (iii) conflict with, violate, result in a breach or termination of, or constitute a default (or, with notice or the lapse of time, become a default), require any consent, or give rise to any “take back” right or right of termination or acceleration or right to increase or modify the obligations under, any agreement, instrument, contractual obligation, permit or court or administrative order to which the Vendor is a party or by which the Vendor or any of its properties or assets is bound.
- f) The Vendor has not, in connection with the parties’ entry into this Agreement, communicated or otherwise provided to the Member any statement of fact, or failed to communicate or otherwise provide to the Member any fact, the communication or omission of which is or was, as of the Agreement Date, known, or should, upon reasonable inquiry, have been known, by the Vendor to be false, misleading or deceptive in any material respect, including any information provided or communicated by the Vendor that is set forth in this Agreement (including any Appendix or Schedule hereto).
- g) The Vendor covenants that the representations made throughout this Agreement, including without limitation the representations in subparagraphs (a) through (f) of this Article 6.05 are a continuing obligation of the Vendor, and the Vendor shall provide Notice to the Member promptly of any changes in the status of such representations.

ARTICLE 6.06 FINANCIAL INFORMATION AND DISCLOSURE

The Vendor represents and covenants that the certified audited financial statements it has supplied to the Member fairly represent the financial condition of the Vendor’s company and/or its parent company, if any, as of the date thereof, in accordance with Generally Accepted Accounting Principles (GAAP). The Vendor represents that there has been no material adverse change in its financial condition from the date of such financial statements to the Agreement Date. The Vendor further represents that it has a continuing obligation to provide Notice to the Member promptly of any material adverse change in its financial condition throughout the term of this Agreement, or if the Vendor’s net worth declines more than ten percent (10%) from the value set forth in its most recent audited financial statements. The Vendor shall provide copies of all annual audited financial statements issued during the term of this Agreement.

ARTICLE 7 - RISK OF LOSS, LIABILITY, INDEMNIFICATION AND WARRANTIES

ARTICLE 7.01 RISK OF LOSS

- a) The Vendor shall bear risk of loss for all Equipment until delivered to and received at the Member’s designated delivery location in accordance with Article 10.04, FOB Terms. Title and ownership of the Equipment (other than the Software), and the right to possess and use the Software pursuant to the rights and licenses granted to the Member under this Agreement, shall pass to the Member upon delivery, subject, in the case of such title and ownership, to the Equipment conforming to the requirements set forth in the Technical Requirements.
- b) In the case of Equipment to be returned to any Vendor Parties, the Vendor shall bear risk of loss

for all Equipment from and after the time the Equipment is removed from the Member's designated location, whether removed by the Vendor or otherwise, and whether going back to the Vendor or elsewhere.

c) The Vendor shall bear risk of loss of any Equipment that is not removed from the Member's designated location after the fifteenth day of the Member's issuance of a notice of rejection or warranty claim unless the Member denies the Vendor reasonable access thereto, in which case the Member shall retain the risk of loss as to such Equipment until reasonable access to the same is granted to the Vendor. The Vendor shall give the Member reasonable advance notice of the approximate time and date that it will remove any such Equipment from the Member's designated location; provided that, in no event shall the Vendor arrive to remove any Equipment at a time other than during the Member's Business Hours.

d) The provisions of subparagraphs (b) and (c) of this Article 7.01 shall apply whether the removal is in accordance with the warranty provisions of this Agreement or otherwise.

ARTICLE 7.02 VENDOR'S LIABILITY AND INDEMNIFICATION

a) The Vendor shall be fully liable and responsible for any and all damage to persons or property due to negligent or otherwise tortious acts, errors, or omissions of any of the Vendor Parties in connection with the Technical Requirements or otherwise relating to this Agreement.

b) The Vendor shall indemnify, defend and hold harmless the Member Indemnitees (as such term is defined below), as their interests may appear from and against any and all claims, demands, suits, actions, damages, losses, liabilities, settlement amounts incurred, expenses and costs of every name, kind and description, including in each case reasonable fees of legal counsel and expert consultants and court costs (collectively, "Claims"), which occur directly or indirectly on account of or in connection with, or arise from: (i) the Vendor's breach of any of its obligations, representations, warranties, or covenants under this Agreement, or (ii) the negligent or otherwise deficient performance by any of the Vendor Parties of any obligation of the Vendor arising from this Agreement or, (iii) the quality or performance of Equipment or Services provided pursuant to this Agreement, or (iv) death, personal injury or property damage, whether real, personal or intangible property, directly or indirectly arising from the acts or omissions or willful misconduct of any of the Vendor Parties. The foregoing indemnification of Claims shall include the defense, settlement or satisfaction thereof and shall not be limited by the terms or limits of any insurance coverage required or obtained pursuant to this Agreement. However, the Vendor shall not be required to indemnify, hold harmless, or defend the Member Indemnitees for that portion of any claim, suit, action, damage or cost which arises due to the negligent act or omission of the Member Indemnitees. For purposes of this Article 7.02 and Article 7.03, Patent and Copyright Indemnification, the term "Member Indemnitees" shall mean, individually and collectively, the Member; the state(s), province(s) or other applicable jurisdiction(s) in which the Member's facilities are located or on whose behalf the Member's facilities are operated as specified in Appendix A - E-ZPass Group Members Terms & Conditions; and all members, officials, directors, officers, employees, agents, Contractors, consultants and other persons employed or engaged by any of the foregoing or working at their direction or on their behalf, and any person or entity required by this Agreement to be named as an additional insured on any policy of insurance required to be supplied by the Vendor.

- c) The Vendor shall provide Notice to the Member at such time as the Vendor becomes aware of any Claim which may give rise to an indemnification obligation under this Article, or at such time as the Vendor becomes aware of any facts that reasonably could be expected to result in such a Claim.
- d) The Vendor's defense, indemnification and hold harmless obligations hereunder shall in no way be diminished, waived or discharged by the Member's recourse to any other remedy provided for hereunder, at law, in equity or otherwise.
- e) In the event that any damage shall occur at or to any part of the Member's facilities on account of any Equipment or Services or other subject matter provided by any of the Vendor Parties (except for damage arising from interfaced combinations or configurations referred to in clauses (i) or (ii) of Article 7.10, Interface with Non-Vendor Equipment, if the damage would have been avoided but for such interfaced combination or configuration) the Member shall have the right to cause such damage to be repaired and to charge the expense of such repairs to the Vendor. Such sums may be deducted, at the sole discretion of the Member, from any monies due or to become due to the Vendor hereunder or under any other agreement between the Vendor and the Member.
- f) In carrying out the provisions of this Agreement, or in exercising any power or authority granted to the Member by the provisions of this Agreement, no member, official, director, officer, employee or agent of the Member shall be liable personally under or by reason of this Agreement.
- g) The provisions of this Article shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 7.03 PATENT AND COPYRIGHT INDEMNIFICATION

- a) The Vendor shall be fully liable and responsible for any and all Claims (as defined in Article 7.02, Vendor's Liability and Indemnification) made or asserted against the Member Indemnitees (as defined in Article 7.02, Vendor's Liability and Indemnification) for any alleged or actual infringement, conversion or misappropriation of, or any other injury, offense, violation, breach of duty or wrong with respect to, any patent, copyright, trademark, service mark, trade secret or other third party intellectual property or proprietary rights (i) by the Equipment or any elements thereof, including any Equipment or related documentation, or by any other subject matter, whether tangible or intangible, patented, patentable or nonpatentable, or copyrighted, copyrightable or non-copyrightable, such as, without limitation, any analyses, firmware, tools, articles, appliances, structures, materials, devices, manufactures, apparatuses, compositions of matter, applications, methods, ways, processes (including processes of manufacture), types of construction, and the like, manufactured, sold, or supplied by any of the Vendor Parties, or (ii) in any way arising out of, relating to, by, in, or in connection with: (A) the course of performance or completion of the Services; (B) the use of the Equipment or any elements thereof, or any of the other subject matter referred to in clause (i) of this subparagraph, by the Member or any other persons or entities permitted to use the Equipment pursuant to this Agreement; or (C) the Member's or such other authorized persons' or entities' exercise of any of its direct or derivative rights, licenses or privileges under Article 4- Intellectual Property Provisions.
- b) The Vendor shall indemnify, defend and hold harmless the Member Indemnitees, as their interests may appear, from any and all Claims regarding intellectual property and other proprietary

rights as described in subparagraph (a) of this Article 7.03, including the defense, settlement or satisfaction thereof, and shall not be limited by the terms or limits of any insurance coverage required or obtained pursuant to this Agreement.

c) If any of the Member Indemnitees, including any person or entity providing Services to, or on behalf of, the Member, shall be enjoined from using any of the Equipment or other elements which form the subject matter of this Agreement, and as to which the Vendor is required to indemnify the Member Indemnitees against Claims regarding intellectual property or other proprietary rights under this Article 7.03, the Member may, at its option and without thereby limiting any other right it may have hereunder or at law or in equity, require the Vendor to supply, temporarily or permanently, alternative systems or system components not subject to such injunction and not infringing or otherwise violating any intellectual property or proprietary rights and, if the Vendor shall fail to do so, the Vendor shall, upon the request of Member, and at the Vendor's expense, remove all such infringing elements of the Equipment and refund, in full, the cost thereof to the Member and otherwise equitably adjust compensation and take such steps as may be necessary to ensure compliance by the Member Indemnitees with such injunction, to the satisfaction of the Member.

d) In the event that any, or the exercise of any rights, licenses or privileges pursuant to Article 4-Intellectual Property Provisions with respect to any Equipment or other elements comprised by or used to operate the Equipment, or any of the inventions, technologies, works, or other subject matter employed to provide Services pursuant to this Agreement, or any configuration, combination or portion thereof, shall, in the opinion of counsel to any of the E-ZPass Group Members, be believed to infringe or otherwise violate any intellectual property or proprietary rights, the Vendor shall have the obligation upon the Member's request and at the Member's option to:

(i) modify, or require that the applicable Vendor Party modify, the alleged infringing subject matter at its own expense, without impairing in any respect the functionality of the Equipment or performance of any of its Equipment or other components; or

(ii) procure for the Member, at the Vendor's expense, the rights, licenses and privileges provided under Article 4-Intellectual Property Provisions, with respect to the alleged infringing subject matter.

e) The Vendor shall be solely responsible for determining, and shall promptly provide Notice to the Member, whether any actual or prospective supplier, contractor or other Vendor Party is a party to any litigation involving patent or copyright infringement, service mark or trademark violation, or any other Claims regarding intellectual property or proprietary rights, or is or may be subject to any injunction which may prohibit it from providing, or the Member or any person or entity providing Services to or on behalf of the Member from exercising any of its rights or licenses pursuant to Article 4-Intellectual Property Provisions, with respect to, the Equipment. The Vendor shall enter into agreements with all Suppliers and subcontractors at its own risk. The Member may reject any aspect, feature or component of the Equipment and Services, or any configuration, combination or portion thereof, which it believes to be, or likely to be, the subject of any such litigation or injunction, or if, in the Member's judgment, use thereof would delay the Services, or be unlawful.

f) The Vendor's defense, indemnification and hold harmless obligations hereunder shall in no way be

diminished, waived or discharged by the Member's recourse to any other remedy provided for hereunder, at law, in equity or otherwise.

g) The provisions of this Article shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 7.04 EQUIPMENT WARRANTIES

a) The Vendor shall be obligated to replace or provide depot repair at the Vendor's sole cost and expense for a period specified herein, for any unit of Equipment (with the exception of Transponders), or part or component thereof, which the Member deems defective or insufficient, or which the Member deems to have failed to comply with the Technical Requirements. For purposes of this provision, the Member's determination of the date of installation of any unit of Equipment shall be accepted by the Vendor.

b) The Vendor is obligated to provide to the Member, at the Vendor's sole cost and expense, replacement of any defective interior or exterior Transponder returned to the Vendor at [the U.S. or North America address to be provided by Vendor in Appendix D - Equipment, Components, Services Listings and Pricing Schedules], All such replaced Transponders shall be returned to the Member at the Vendor's sole cost and expense. All such warranty work, including delivery to the Member's designated delivery location, shall be completed within seven (7) Business Days from the date the Vendor receives the defective Transponders, provided, however, that delivery shall not be made to the Member on a Business Day that is observed as a holiday by the Member, and if applicable, the seven (7) Business Day time period shall be extended until the next following Business Day which is not observed as a holiday by the Member. Replacement Transponders provided during the warranty period shall be delivered to the E-ZPass Group Member's designated delivery location in accordance with the requirements of Article 10.02, Orders. The Vendor shall provide replacement Transponders for any Interior Portable and Exterior Hard-Case Transponders not functioning for any reason for ten (10) years, Feedback Transponder and the Switchable Transponder not functioning for any reason for seven and a half (7.5) years; and Interior Sticker and Exterior Sticker Transponders not functioning for any reason for two (2) years. The time period (years) defined above for each transponder begins: i) the date any such Transponder is installed on the exterior or in the interior of any vehicle, or ii) twelve (12) months from the date such Transponder is delivered to the Member's designated delivery location, whichever is earlier. The warranty period for the replacement Transponder shall be for the time remaining warranty periods defined above for the replaced defective Transponder. At a minimum, Transponders which have failed according to the Transponder Tester shall be deemed defective for purposes of this Article 7.04. For purposes of this Article 7.04 b), the Member's determination of the date of installation of any Transponder shall be accepted by the Vendor.

c) All defective Equipment replaced by the Vendor will become the property of the Vendor.

d) The Vendor shall bear all costs of return of Equipment under Warranty.

e) The provisions of this Article shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 7.05 SOFTWARE WARRANTIES

a) The Software needed to operate the Equipment shall include, but not be limited to, all licensed internal code and firmware. The Member's acceptance of the Software shall occur in accordance with the provisions for First Article Testing in Article 10.01, Tests. The Vendor warrants that, upon the Member's acceptance of and for the longer of the term of this Agreement or the applicable warranty period of related Equipment, the Software and each module or component and function thereof shall:

(i) be free from defects in materials and workmanship under normal use;

(ii) remain in good working order, be free from Viruses, disabling devices or any other technology or means which has the ability to interfere with the use of the Equipment by the Member or its designees, or permit access to the Member's computing systems without its knowledge or contrary to its system connectivity policies or procedures, and

(iii) operate and function fully, properly and in conformity with the warranties in this Agreement.

b) The Vendor represents and warrants that upon the Member's acceptance of and for the longer of the term of this Agreement or the applicable warranty period of related Equipment, the Software will:

(i) operate fully and correctly in the operating environment identified in the Technical Requirements, including by means of the full and correct performance of the Software, and all updates, enhancements, or new releases of the Software, on or in connection with the Equipment, any updates, enhancements, or new releases to such Equipment, and any other Software used by or in connection with any such Equipment;

(ii) be fully compatible and interface completely and effectively with the Equipment, including each other Software program provided to Member hereunder, such that the Software and other Equipment combined will perform and continuously attain the standards identified in the Technical Requirements; and

(iii) accurately direct the operation of the Equipment, all as required by the Technical Requirements, and the descriptions, specifications and documentation set forth therein and herein.

c) During the term of this Agreement and at no additional cost to the Member, the Vendor shall provide Services to maintain the Software provided hereunder in good working order, keeping it free from defects such that the Equipment shall perform in accordance with this Agreement, the technical requirements of the Technical Requirements, and the warranties set forth herein.

d) The Vendor shall provide technical support and shall remedy any failure, malfunction, defect or non-conformity in Software as follows: the Vendor shall respond to any request for Services due to failure, malfunction, defect or non-conformity by telephone response by a qualified and knowledgeable representative within fifteen (15) minutes. In the event the problem is diagnosed as being software related, the Vendor shall assign knowledgeable personnel and render continuous efforts to remedy the failure, malfunction, defect or nonconformity as soon as practicable, but in any event not later than the deadline(s) in subparagraph (c) of Article 8.08, Liquidated Damages.

- e) The Vendor shall provide the Member the most current release of all Software available on the date of delivery to maintain optimum performance pursuant to this Agreement.
- f) The Vendor shall promptly provide Notice to the Member and all other E-ZPass Group Members in writing of any defects or malfunctions in the Software provided hereunder regardless of the source of information. The Vendor shall promptly correct all defects or malfunctions in the Software or documentation discovered during the term of this Agreement and shall promptly provide the Member with corrected copies of same, without additional charge. If Software can only be corrected in conjunction with additional or revised hardware, the Vendor shall provide such hardware to Member and the cost of such hardware shall be borne solely by the Vendor.
- g) When updates or enhancements to the Software made by or for the Vendor become available, the Vendor shall, at no additional cost to the Member, provide all Services, training and support required to install and implement such updates or enhancements and to convert and reformat any of the Member's data, if necessary, throughout the term of this Agreement. Enhancements shall be deemed to include all modifications to the Software which increase the speed, efficiency or ease of operation of the Software provided by the Vendor.
- h) No updates or enhancements shall adversely affect the performance of the Equipment, in whole or in part, or result in any failure to meet any requirements of the Technical Requirements.
- i) The Vendor shall ensure continued satisfactory performance by the current operating system of the Software in accordance with all provisions of this Article 7.05.
- j) With regard to Software, the Vendor shall provide the following Services throughout the Agreement Term:
 - (i) Release notes to the Member and all E-ZPass Group Members prior to making any Software changes or upgrades;
 - (ii) Configuration management of all Software versions that are to be utilized;
 - (iii) Routine monitoring of the Software to verify functionality, subject to Member's oversight and security requirements; and
 - (iv) Software adjustments in order to fine tune the solution to better meet the performance requirements in the Technical Requirements.
- k) The Vendor shall assist the Member in coordinating maintenance agreements for third party Software. The Vendor shall secure such maintenance agreements for the same duration and upon the same terms and conditions as the maintenance provisions between the Vendor and the Member.
- l) In the event that, during the software warranty period described herein, the Software does not satisfy the conditions of performance set forth in the Technical Requirements, the Vendor is obligated to promptly repair or replace such Software at the Vendor's sole cost and expense or, if expressly agreed to in writing by the Member, provide different equipment or software, and perform Services required to attain the performance requirements set forth in the Technical Requirements.
- m) In the event of any defect in the media upon which any tangible portions of the Software is

provided, the Vendor shall provide the Member with a new copy of the Software.

n) Without releasing the Vendor from its obligations for warranty, support or maintenance of the Software, the Member shall have the right to use and maintain versions of the Software provided by the Vendor which are one or more levels behind the most current version of such Software and to refuse to install any updates or enhancements if, in the Member's discretion, installation of such updates or enhancements would interfere with its operations.

o) The provisions of this Article 7.05 shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 7.06 DEFECTS

a) The Vendor agrees to remedy any Pervasive Defect as provided in this Article 7.06 during the term of this Agreement.

(i) The Vendor agrees that a "Pervasive Defect" shall be deemed to be present in affected types of Equipment upon the occurrence of any of the following: (1) the circumstances described in the Technical Requirements; or (2) a need for corrective action identified as part of the Vendor's ongoing quality assurance plan as described in Part V, Section 2.2; or (3) a need for corrective action identified in accordance with Article 2.09, Investigation of Deficient Equipment and Component Performance or Article 2.10, Maintenance of Records; Inspection, Review and Audit, in all cases without regard to whether any warranty is then also applicable to said Equipment.

(ii) The Member shall provide Notice to the Vendor of the potential existence of a Pervasive Defect and the nature thereof as soon as practical after testing or other information indicates to the Member that a Pervasive Defect may exist; provided, however, that any failure on the part of the Member to provide timely Notice shall not relieve the Vendor of any of its obligations under this Article 7.06.

(iii) Upon its receipt of such Notice from the Member, the Vendor shall immediately investigate the circumstances described in the Notice and shall obtain all other relevant facts and circumstances, including without limitation, information received by the Vendor from other E-ZPass Group Members and from its own engineering, quality control and quality assurance operations as to the performance of the relevant Equipment.

(iv) The Vendor shall provide Notice to the Member and the E-ZPass Group Members with a preliminary report as to its findings with regard to the claimed Pervasive Defect (the Preliminary Defect Report, or PDR) within thirty (30) days of its receipt of Notice thereof. The PDR shall fully describe the nature of the investigation conducted by the Vendor through the date of the PDR, including a description of all sources consulted and the information obtained from each, and whether, on the basis of its investigation, the Vendor has confirmed that a Pervasive Defect exists. If the Vendor's investigation determines that a Pervasive Defect exists, the PDR shall also describe the nature and cause(s) thereof, so far as is known as of the date of the PDR, and the extent to which the Pervasive Defect is believed to affect all Equipment then manufactured and/or deployed. If the PDR determines that no Pervasive Defect exists, it shall fully describe all findings made with respect to the anomaly (anomalies) reported by the Member and describe all measures the Vendor believes to be necessary in order to correct the same. If after the Vendor provides the PDR, the Vendor

becomes aware of information which would cause the PDR to be inaccurate or incomplete, the Vendor shall promptly supplement the PDR by Notice to the Member and E-ZPass Group Members.

(v) The Member, subject to E-ZPass Group Approval, on the basis of the PDR and such other information as may be available to it, may: (A) Determine that a Pervasive Defect exists and require the Vendor to develop and submit a Remedial Plan in accordance with subparagraph (a)(vi), (B) Determine that no Pervasive Defect exists and take such other action as the Member shall deem necessary under this Agreement; or (C) Determine that more information is required and direct the Vendor to conduct such further investigation of the matter and submit a revised version of the PDR for consideration on such schedule as may be specified pursuant to such E-ZPass Group Approval. In making any of the foregoing determinations, the Member shall not be bound by the Vendor's findings respecting the presence or lack thereof, of a Pervasive Defect. If a dispute between the Member and the Vendor exists as to the determination by the Member of a Pervasive Defect, the procedure set forth in subparagraph (a)(xiii) shall be followed.

(vi) If a Pervasive Defect has been determined to exist in accordance with subparagraph (v), the Vendor shall provide a Remedial Plan addressing such Pervasive Defect to the Member with a copy to all E-ZPass Group Members as provided in Article 1.16, Notices. In its development of the Remedial Plan the Vendor shall meet with all E-ZPass Group Members affected by the Pervasive Defect so as to obtain and utilize their input in the development of the Remedial Plan. The Remedial Plan shall be subject to E-ZPass Group Approval. The Vendor shall present the Remedial Plan for E-ZPass Group Approval within 30 days of the Notice of a determination made pursuant to subparagraph (v) of this Article 7.06; provided, however, that if more information was required under subparagraph (a) (v) (C) of this Article 7.06 because the Vendor's submittal of the PDR was incomplete or inadequate, the period for submission of the Remedial Plan shall be reduced to the extent specified in the E-ZPass Group Approval so as to compensate for any time lost as a result.

(vii) If the Member determines that any Pervasive Defect has created an exigent circumstance for such Member, notwithstanding the foregoing it may direct the Vendor to take such immediate steps as may be necessary in order to mitigate the effects of the Pervasive Defect, pending implementation of a Remedial Plan (including without limitation stopping shipment, or immediate recall and replacement of the Member's Equipment). Any such steps shall be taken by the Vendor at no cost to the Member or any of the E-ZPass Group Members.

(viii) The Remedial Plan shall at a minimum include all of the following: (A) Identification of all Equipment affected by the Pervasive Defect; (B) A plan for recall, repair, or replacement of all such affected Equipment; (C) The timetable on which the recall, repair or replacement of all affected Equipment shall be commenced and completed, with appropriate prioritization and milestones; (D) A description of all steps to be implemented by the Vendor and by E-ZPass Group Members pending recall, repair or replacement of all affected Equipment so as to mitigate the consequences of the Pervasive Defect in the interim. Any such remedy shall be at no cost to the Member or any of the E-ZPass Group Members.

(ix) In the absence of extraordinary circumstances, which shall be stated in detail in the Remedial Plan if same are claimed to exist, the timetable contained in the Remedial Plan for recall, repair or replacement of all affected Equipment shall not extend for more than ninety (90) days after E-ZPass Group Approval of the Remedial Plan. Extensions of time shall be in accordance with Article 2.14,

Extension of Time.

(x) The Vendor shall provide Notice to all E-ZPass Group Members of any Notice received from a E-ZPass Member identifying the potential existence of a Pervasive Defect, or any determination by the Vendor that a Pervasive Defect exists, or of any recall pursuant to this Article 7.06. The Vendor shall further provide periodic status reports to the Member and all E-ZPass Group Members not later than thirty (30) Days after issuance of the Notice of Pervasive Defect, and at no longer than thirty (30) Day intervals thereafter, regarding the Vendor's progress with respect to remedying such Pervasive Defect. The status reports shall describe the Vendor's progress with respect to all matters contained in the Remedial Plan, identify all constraints in achievement of all required objectives, and state whether the schedule and objectives of the Remedial Plan are likely to be met as required. If any constraint is likely to delay the performance of the Remedial Plan, the Vendor shall state all steps that it intends to take in order to mitigate the effects of the constraint.

(xi) Upon completion of the implementation of the Remedial Plan, the Vendor shall provide a Final Remedial Plan Report to the Member and all E-ZPass Group Members, as provided in Article 1.16, Notices, that follows the format of the periodic status reports. The Remedial Plan shall be subject to E-ZPass Group Approval of the Final Remedial Plan Report. The Vendor shall promptly implement any further steps required as a condition to such approval and upon completion shall submit a revised Final Remedial Plan Report for E-ZPass Group Approval.

(xii) The Vendor shall warrant all Equipment repaired or replaced by reason of the implementation of the Remedial Plan that extends to the later of twelve (12) months from the end of the original warranty period required by Article 7.04, Equipment Warranties, or twelve (12) months from the date of installation of the repaired or replacement Equipment, or such longer warranty period as provided in accordance with the Technical Requirements.

(xiii) In the event that the Vendor disputes a determination of Pervasive Defect made in accordance with subparagraph (a) (v) of this Article 7.06, the Vendor shall notify the Member of such dispute, including a description of the dispute and shall provide all documentation to the Member in support of the dispute. The Vendor shall then put together an Agreement with a third-party, licensed engineer that has been mutually agreed to by the Member and the Vendor for the purposes of providing an analysis and opinion regarding whether a Pervasive Defect has occurred. The Vendor shall pay the full cost of the third-party engineer.

b) The Vendor shall have an independent, ongoing obligation (i) to compile information with respect to warranty Services and returns as to all Equipment with reference to the circumstances described in the Technical Requirements, and (ii) to provide Notice to the Member and all E-ZPass Group Members, as soon as practicable upon a determination by the Vendor that a Pervasive Defect as defined in this Article exists or may exist either by reason of Part V, Section 2.3 or a need for corrective action arising under Part V, Section 2.2 or in accordance with Article 2.09, Investigation of Deficient Equipment and Component Performance, or Article 2.10, Maintenance of Records; Inspection, Review and Audit. In all of these cases, the provisions of subparagraphs (a) (iv) through (xiii) of this Article 7.06 shall govern except that the Vendor shall submit the PDR within thirty (30) days of the Vendor's first Notice to the E-ZPass Group Members.

c) The obligations set forth in this Article 7.06 shall be in addition to any warranty obligations set

forth in this Agreement and subject to the provisions of Article 8.04, Actual Damages.

d) The provisions of this Article shall survive the expiration, cancellation, or termination of this Agreement.

ARTICLE 7.07 THIRD PARTY WARRANTIES

In addition to the foregoing warranties, the Vendor shall assign to the Member, and the Member shall have the benefit of, any and all Subcontractors and Suppliers' warranties and representations with respect to the Equipment and Services provided hereunder. The Vendor's agreements with subcontractors, Suppliers and any other third parties shall require that such parties (a) consent to the assignment of such warranties and representations to the Member, (b) agree to the enforcement of such warranties and representations by the Member in its own name, and (c) furnish to the Member, the warranties set forth herein. At the Member's request, the Vendor shall provide supporting documentation which confirms that these warranties are enforceable in the Member's name.

ARTICLE 7.08 REGULATORY MATTERS

a) The Equipment shall comply with all applicable federal, state and local regulatory requirements for the underlying Equipment and its operation. If during the term of this Agreement the regulatory requirements change or a regulatory standard is changed by any branch of government, the Vendor shall be responsible for any modifications to the Equipment or other required compliance to meet the new regulations or the new standard.

b) For Vendor-supplied Transponders if the proposed Transponder mounting location is other than the preferred interior and exterior locations as specified in the Technical Requirements, the Vendor accepts all responsibility for complying with all applicable state laws and regulations of all the Department/Division of Motor Vehicles in all states in which the E-ZPass Group Members' facilities are located for such alternate mounting locations.

c) The Vendor accepts the following obligations with respect to the applicable federal, state, and local regulations and applicable licensing and permit requirements for its Equipment:

(i) Recognizing that the operation of the Vendor's Reader will require the Member to obtain necessary licenses and permits from the applicable regulatory agencies under the relevant statutes and regulations (including those agencies, statutes and regulations specified in accordance with Section 3.2.3 & 4.6.3 of the Technical Requirements), the Vendor shall perform a comprehensive review, at the Vendor's cost and expense, of all licenses and permits other parties hold for equipment that operates in close proximity to the locations where the equipment is installed and that has the potential of affecting the operation of Vendor's Reader. Such review shall be completed and a written report of the Vendor's findings submitted no later than sixty (60) Days after the Member's Notice to initiate such action. In the event engineering analyses are required for any of the locations where the equipment is installed, the Vendor shall perform and complete such engineering analyses, at its own cost and expense, no later than one hundred and twenty (120) Days from the Member's Notice to Proceed.

(ii) During the term of this Agreement, the Vendor shall prepare, file and prosecute on the

Member's behalf, all documentation necessary to secure, maintain or renew all necessary licenses and permits from the applicable regulatory agencies to operate the Equipment for each Designated License Location where the Vendor's Equipment will be installed. At least six (6) months in advance of the date any Equipment is to be installed at its Designated License Location, the Vendor shall fulfill its obligation to secure all necessary licenses and permits to operate the Equipment. The Member shall be responsible for providing the funds for the Vendor to pay the applicable license, permit or filing fees. The Vendor shall be responsible for paying all other costs of securing, maintaining or renewing such licenses and permits. The Member shall have the option to specifically indicate when it will secure, maintain or renew a required license or permit on its own behalf and, in that event, the obligations of this subparagraph shall not apply to the Vendor for securing, maintaining or renewing such specific license or permit.

(iii) If a regulatory agency requests compliance or accedence by the Member with a regulation or a requirement for a license or permit relating to the Equipment, then the Vendor shall prepare, file and prosecute, on the Member's behalf, all documentation necessary for compliance or accedence with such request. The Vendor shall be responsible for paying all costs of compliance or accedence with such request, provided that if any fines have been levied in connection with such request and the basis for the imposition of such fines is due to the fault of the Vendor, the Equipment or the operation of the Equipment, then the Vendor shall be responsible for paying such fines; otherwise, the Member shall be responsible for paying such fines. For any such request, the Member shall have the option to comply or accede to such request on its own behalf and, in that event, the obligations of this subparagraph, other than the conditional responsibility to pay any fines, shall not apply to the Vendor.

(iv) For the five (5) year period beginning on the Transition Date, the Vendor shall replace or modify the Equipment, at the Vendor's cost and expense, in the event it suffers interference from sources legally permitted to operate and such interference results in the Reader not functioning in accordance with the requirements of the Technical Requirements. The Member shall cooperate with the Vendor in its performance of the obligations under this subparagraph.

ARTICLE 7.09 WARRANTY OF TITLE

The Vendor warrants and represents the Member shall acquire good, clear and exclusive title to all delivered (i) Equipment, (ii) tangible media comprising or containing non-embedded Software, and (iii) documentation relating to any Equipment, including documentation described in the Technical Requirements, all of which shall be free and clear of any liens, claims or encumbrances.

ARTICLE 7.10 INTERFACE WITH NON-VENDOR EQUIPMENT

The Member shall have the right at any time to connect, attach or interface to any equipment, software, technology, system or devices, which did not originate with or was not provided by the Vendor's Software or other Equipment or to interface with the Vendor's Equipment, any such third party technologies, including any equipment, software, systems or devices. Without limiting or otherwise derogating from the foregoing right, the Vendor's warranties provided in this Agreement shall continue to apply to the use of the Equipment in such interfaced combinations or configurations unless such connections, attachments or interfaces (i) do not substantially conform with the requirements, or (ii) significantly conflict with the restrictions, as the case may be, that the

Vendor has disclosed in response to the Technical Requirements.

ARTICLE 7.11 SERVICES WARRANTY

The Vendor warrants that all Services shall be performed in a high-quality, professional manner by qualified and skilled personnel in compliance with the Member's requirements as set forth in the Technical Requirements. In the event the Member determines that any Services do not conform to the foregoing warranty, the Member shall be entitled to elect one of the following remedies: (i) reperformance of the Services by the Vendor until the Member deems them to be in conformity with the warranty in this Article 7.11, at no charge to the Member; (ii) refund from the Vendor for all fees paid in connection with the Services which the Member deems were not as warranted, or (iii) reimbursement by the Vendor for the Member's costs and expenses incurred in having the Services re-performed by the Member or someone other than the Vendor.

ARTICLE 7.12 ADDITIONAL WARRANTIES

The Vendor represents and warrants that:

- a) All guarantees and warranties made herein are fully enforceable by the Member acting in its own name.
- b) The Vendor's Equipment installed and placed into operation will not result in any damage to existing facilities, walls or other parts of adjacent, abutting or overhead buildings, railroads, bridges, structures, surfaces, or any physical/mental injury to any patron utilizing any unit(s) of Equipment.
- c) All Equipment provided hereunder shall be new and unused. Equipment, including Transponders, shall meet or exceed the requirements in the Appendix C- Conformed Technical Requirements, all material and workmanship supplied hereunder shall be highest quality and consistent with established and generally accepted standards, and shall comply with the requirements of the Technical Requirements and the Vendor's performance claims in Appendix C- Conformed Technical Requirements. In the event the Equipment performance does not meet the requirements stated herein at an installation location, the Vendor shall be solely responsible at its own expense for performing the necessary Equipment replacements and modifications, with Member approval, so as to then achieve the Equipment performance requirements specified.

ARTICLE 7.13 GENERAL GUARANTY

Neither the Vendor Certification of the Equipment and Services or payment therefor nor any provision in this Agreement nor partial or entire use of the Equipment and Services by the Member shall constitute an acceptance of Equipment and Services not performed in accordance with this Agreement or relieve the Vendor of liability for any express or implied warranties or responsibility for faulty materials or workmanship.

ARTICLE 8 - DEFAULT, DAMAGES AND REMEDIES

ARTICLE 8.01 EVENT OF DEFAULT

- a) The following shall constitute an Event of Default on the part of the Vendor:

- (i) The Vendor has not delivered Equipment or performed Services on a timely basis except to the extent of an excusable delay in accordance with Article 2.14, Extension of Time;
- (ii) The Vendor has delivered to the Member and/or E-ZPass Group Members, reports required by the Technical Requirements which indicate that the Equipment will fall below the required functional and/or performance criteria set forth in the Technical Requirements;
- (iii) The Equipment or Services fail to meet the functional and/or performance criteria set forth in the Technical Requirements;
- (iv) The Vendor has persistently or repeatedly refused or failed, to supply enough properly skilled workers or proper materials to provide Services, except to the extent of an excusable delay in accordance with Article 2.14, Extension of Time;
- (v) The Vendor fails to comply with any applicable provisions of Article 7.08, Regulatory Matters;
- (vi) The Vendor fails to remedy Pervasive Defects in accordance with Article 7.06, Defects;
- (vii) The Vendor fails to maintain insurance policies and coverages or fails to provide proof of insurance or copies of insurance policies, as required by Article 5.01, General Insurance Requirements and Article 5.02, Financial Assurance;
- (viii) The Vendor fails to meet and maintain requirements for financial assurance as required by Article 5.02, Financial Assurance;
- (ix) Any warranty, representation, certification, financial statement or other information made or furnished to induce the Member to enter into this Agreement, including but not limited to the representations required by Article 4 and Article 6 of this Agreement, or made or furnished, at any time, in or pursuant to the terms of this Agreement or otherwise by the Vendor, or by any person who guarantees or who is liable for any obligation of the Vendor under this Agreement, shall prove to have been false or misleading in any material respect when made;
- (x) The Vendor breaches or violates any representation or warranty set forth in Articles 6.02, Prohibition on Gifts, 6.03, Conflict of Interest, or 6.04 Ethics.
- (xi) The Vendor has become insolvent (other than pursuant to a case, proceeding, or other action pursuant to subparagraph (a)(xii)), or has assigned the proceeds of any Equipment Orders or Service Orders received for the benefit of the Vendor's creditors (except any assignment of proceeds as collateral for any loan), or the Vendor has taken advantage of any insolvency statute or debtor/creditor law or the Vendor's property or affairs have voluntarily been put in the hands of a receiver;
- (xii) Any case, proceeding or other action against the Vendor is commenced in bankruptcy, or seeking reorganization, liquidation or any relief under any bankruptcy, insolvency, reorganization, liquidation, dissolution or other similar act or law of any jurisdiction, which case, proceeding or other action remains undismissed, undischarged or unbonded for a period of thirty (30) Days;
- (xiii) The Vendor has failed to provide "adequate assurances" as required under subparagraph (b) of this Article 8.01;

- (xiv) The Vendor has failed to make prompt payment to subcontractors or Suppliers for materials or labor;
 - (xv) The suspension or revocation of any license, permit, or registration necessary for the performance of the Vendor's obligations under this Agreement;
 - (xvi) Any act or omission of the Vendor, or any suspension of or failure to proceed with any part of the Technical Requirements by the Vendor, or any other occurrence which makes it improbable at the time that the Vendor will be able to perform any one or more of its obligations under this Agreement;
 - (xvii) Any event which would constitute an Event of Default by the Vendor, or an event which with the passage of time or the giving of notice, or both, would constitute an Event of Default by the Vendor under any agreement with a E-ZPass Group Member to provide the Equipment and Services; or
 - (xviii) The default in the performance or observance of any of the Vendor's other obligations under this Agreement and the continuance thereof for a period of thirty (30) Days after Notice given to the Vendor by the Member.
- b) When, in the opinion of the Member, reasonable grounds for uncertainty exist with respect to the Vendor's ability to perform any of its obligations under this Agreement, the Member may give Notice of a request that the Vendor provide "adequate assurances" of the Vendor's ability to perform in accordance with the terms of this Agreement to the Member, in writing, within fifteen (15) Days of the Member's request. Until the Member receives such assurances, the Member may suspend all payments to the Vendor. In the event that the Vendor fails to provide by Notice to the Member the requested assurances to the Member's satisfaction within fifteen (15) Days, the Member may:
- (i) treat such failure as a repudiation of this Agreement;
 - (ii) suspend the Vendor's performance hereunder;
 - (iii) resort to any remedy provided herein or at law or equity, including but not limited to any right or remedy referred to in Article 8.03, Remedies in the Event of Default;

The enumeration in this Article 8.01 or elsewhere in this Agreement of specific rights or remedies of the Member shall not be deemed to limit any rights or remedies which the Member would have in the absence of such enumeration.

ARTICLE 8.02 NOTICE OF DEFAULT - CHANCE TO CURE, TERMINATION

- a) Without limiting the Member's rights under subparagraph (b) of this Article, the Member may terminate this Agreement if, within a period of thirty (30) Days after the Vendor has received Notice from the Member that an Event of Default has occurred under subparagraph (a) of Article 8.01, Event of Default, the Vendor has not remedied such Event of Default or, if such event is one not reasonably curable within 30 Days, the Vendor has not commenced and continued to pursue with due diligence a remedy for any such Event of Default and has not cured such Event of Default within ninety (90) Days of the Notice of Event of Default.

b) The Member may terminate this Agreement immediately without notice, notwithstanding the provision in subparagraph (b) of Article 2.17, Termination for Convenience of the Member/Suspension of Work, upon an Event of Default of the character described in vii through xii, inclusive, of subparagraph (a) of Article 8.01, Event of Default.

ARTICLE 8.03 REMEDIES IN THE EVENT OF DEFAULT

Upon the occurrence of an Event of Default, and at any time thereafter during the continuation of such Event of Default, the Member may exercise any right or remedy available to it in law or equity to enforce all rights under this Agreement, including any one or more of the following remedial steps:

- a) Take any action at law or in equity to enforce performance and observance of any obligation, agreement or covenant of the Vendor under this Agreement.
- b) Perform or cause to be performed for the account of the Vendor any covenant in the performance of which the Vendor is in default or make any payment for which the Vendor is in default. The Vendor shall pay to the Member upon demand any amount paid or incurred by the Member in the performance of such covenant. Any amounts which have been paid or incurred by reason of failure of the Vendor to comply with any covenant or provision of this Agreement, including reasonable counsel fees incurred in connection with prosecution or defense of any proceedings instituted by reason of default of the Vendor, such amounts shall bear interest at the Default Rate, which shall be defined as the Prime Rate plus five (5) percent, but in no case higher than the highest rate permitted by law, from the date of payment by the Member until paid by the Vendor and shall be secured by the financial assurance instrument described in Article 5.02, Financial Assurance. The Prime Rate shall be determined to be the Prime Rate of Interest published by *the Wall Street Journal*, or if the published rate is a range, shall be the highest of such range.
- c) The Member, or its designated representatives, shall have the right to immediately take possession of all applicable Equipment and data, and the applicable facilities that house such items. The Member, as part of its right to complete or cause to be completed the Technical Requirements, may: take possession of and use any or all of the materials, plants, tools, technical specifications, drawings, Equipment, supplies and property of every kind, provided, purchased, maintained, leased, owned, or rented by the Vendor, make available any or all of the foregoing items; and/or procure other materials, plant, tools, equipment, and supplies and may charge the Vendor and the Vendor shall be liable to the Member for the expense of said labor, materials, plant, tools, equipment, supplies and property. Such procurement shall in no event be deemed a breach by the Member of what might otherwise be its obligations under this Agreement as described in Article 1.03, Nature of Agreement.

In addition to the foregoing, if an Event of Default occurs, or the Vendor threatens to commit an Event of Default, the Member shall have the right and remedy, without posting bond or other security, to have the provisions of this Agreement specifically enforced by any court having equity jurisdiction, it being acknowledged and agreed that any such Event of Default will cause irreparable injury to the Member and that money damages will not always provide an adequate remedy therefor.

This Article 8.03 shall survive termination, cancellation, or expiration of this Agreement.

ARTICLE 8.04 ACTUAL DAMAGES

The Vendor acknowledges that its performance is critical to the operation of the Member inasmuch as the Technical Requirements to be provided pursuant to this Agreement directly involves the Member's revenue and customer service. The Vendor agrees that the actual damages set forth below are fair and reasonable in the event of unsatisfactory performance and the Vendor shall pay the Member such damages or the Member may choose in its sole discretion to exercise its right to set-off pursuant to Article 8.07, Set-Off Rights.

- a) The Vendor shall reimburse the Member for any revenue which the Member identifies as having been lost due to the Vendor's failure to comply with its obligations under this Agreement. Lost revenue includes, but is not limited to, such events as the Reader losing or not transmitting Transponder reads.
- b) The Vendor shall reimburse the Member for the difference between the costs associated with procuring alternative equipment and Services, including the amount actually expended by the Member and costs of administration, and the compensation the Member would otherwise have paid the Vendor for such equipment and Services pursuant to this Agreement.
- c) The Vendor shall be responsible for any other costs incurred which are the result of its failure to meet specifications, including such things as failure to comply with constraints or assumptions related to a Reporting Zone in Appendix C-Technical Requirements and Requirements Compliance Matrix as required by Section 4.2 & 4.3 of the Technical Requirements. In the event the Vendor fails to comply with such constraints or assumptions, the Vendor shall be responsible for all associated costs, including infrastructure costs, lane controller modification costs, or additional costs in processing transactions.
- d) The Vendor shall also remain liable for any other liabilities and claims related to the Vendor's default.

ARTICLE 8.05 THE MEMBER MAY AVAIL ITSELF OF ALL REMEDIES; NO WAIVER

No right or remedy herein conferred or reserved is intended to be exclusive of any other available rights and remedy or remedies, but each and every such right and remedy shall be cumulative and shall be in addition to every other right and remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right, remedy, privilege or power accruing upon any default shall impair any such right, remedy, privilege or power or shall be construed to be a waiver thereof, but any such right, remedy, privilege or power may be exercised from time to time and as often as may be deemed expedient. No waiver by the Member of any right or remedy under this Agreement shall be effective unless made in a writing duly executed by an Authorized Officer of the Member, and such waiver shall be limited to the specific instance so written and shall not constitute a waiver of such right or remedy in the future or of any other right or remedy under this Agreement. No notice, other than such Notice as may be required in this Agreement, shall be required precedent to the exercise of any right or remedy hereunder or at law or in equity. This Article 8.05 shall survive termination, cancellation, or expiration of this Agreement.

ARTICLE 8.06 NO DAMAGES FOR DELAY

The Vendor agrees to make no claim for damages for delay in the performance by the Vendor of its obligations hereunder occasioned by any cause whatsoever, including any act or omission to act of the Member or of any of the Member's representatives or other Contractors.

ARTICLE 8.07 SET-OFF RIGHTS

The Member shall have rights of set-off. These rights shall include, but not be limited to, the Member's option to withhold for the purposes of set-off, any monies due to the Vendor under this Agreement, up to any amounts due and owing by the Vendor to the Member with regard to this Agreement, or any other Agreement with the Member, including any Agreement for a term commencing prior to the term of this Agreement, plus any amounts due and owing to the Member for any other reason including, without limitation, monetary penalties, adjustments, fees, or claims for actual or liquidated damages by the Member and third parties in connection therewith.

ARTICLE 8.08 LIQUIDATED DAMAGES

The Vendor acknowledges that time is of the essence in the performance of Services and delivery of Equipment under this Agreement. Liquidated damages may be assessed for the Vendor's failure to meet required delivery time as further described in Part 3: Technical Requirements and Exhibits A-6, Requirements Conformance Matrix. The Vendor acknowledges that damages for delay will be difficult to determine and, therefore, agrees that the amounts set forth in Part 3: Technical Requirements and Exhibits A-6, Requirements Conformance Matrix are fair and reasonable estimates of liquidated damages payable by the Vendor and that such amounts are in addition to the provisions of Article 8.04, Actual Damages.

- a) Amounts due to Members as liquidated damages, if not paid by the Vendor within fifteen (15) Days of notification of assessment, may be deducted by Members from any money payable to the Vendor pursuant to this Agreement. Members will notify the Vendor in writing of any claim for liquidated damages pursuant to this paragraph on or before the date Members deduct such sums from money payable to the Vendor. No delay by Members in assessing or collecting liquidated damages shall be construed a waiver of such rights.
- b) If a Member elects not to impose liquated damages in a particular instance, said decision shall not be construed as a waiver of the Member's right to pursue future assessments for failure to meet project milestones or Performance Requirements and associated liquidated damages; nor construed to limit any additional remedies available to the Member.
- c) Payment adjustments will be assessed not as a penalty, but as liquidated damages for not meeting the Maintenance Requirements set forth in Part III: Technical Requirements, as applicable. If in the performance of the Services the Vendor does not meet or exceed the Requirements identified therein, E-ZPass Group Member will reduce the amount they would otherwise pay to the Vendor for such Services subject to the reduction amounts and limits set forth therein.
- d) Members may recover any and all liquidated damages by deducting the amount thereof from any monies due or that may become due from the Vendor, notwithstanding any liens, Notices of liens or actions of Subcontractors, and if said monies are insufficient to cover said damages, then the Vendor

or the surety shall promptly pay any remaining amounts due on demand.

e) Damages shall accrue up through 45 days past the deliverable date. Nothing herein contained shall be construed as limiting Members' rights to recover from the Vendor any and all other amounts due or that may become due to Members, or any and all costs and expenses sustained by Members for improper performance hereunder, or for breach or breaches in any other respect including, but not limited to, defective workmanship or materials.

ARTICLE 9 - OTHER STATUTORY REQUIREMENTS

ARTICLE 9.01 WAGE AND HOURS PROVISIONS

The Vendor agrees to comply with the labor laws of the state(s) and provinces in which the Member's facilities are located, to the extent applicable to the Technical Requirements, including without limitation, those included in Appendix A - E-ZPass Group Members Terms & Conditions.

ARTICLE 9.02 INTERNATIONAL BOYCOTT PROHIBITION

The Vendor agrees, as a material condition of this Agreement, that neither the Vendor nor any substantially owned or affiliated person, firm, partnership, or corporation has participated, is participating, or shall participate in an international boycott in violation of the Federal Export Administration Act of 1979 (50 USC App. §§2401 et seq.) or regulations thereunder. If the Vendor, or any of the aforesaid affiliates of the Vendor, is convicted or is otherwise found to have violated said laws or regulations upon the final determination of the United States Commerce Department or any other appropriate agency of the United States subsequent to this Agreement's execution, this Agreement, Amendment or modification thereto shall be rendered forfeit and void. The Vendor shall provide Notice to the Member within five (5) Business Days of such conviction or final determination.

ARTICLE 9.03 NON-COLLUSIVE PROPOSAL CERTIFICATION

The Vendor warrants, under penalty of perjury, that the Vendor's Proposal submitted in connection with the procurement of this Agreement was arrived at independently and without collusion aimed at restricting competition. The Vendor further warrants that, at the time the Vendor submitted its proposal, an authorized and responsible person executed and delivered a non-collusive proposal certification on the Vendor's behalf in the form required by the Member.

ARTICLE 9.04 NON-DISCRIMINATION REQUIREMENTS

The Vendor shall comply with the non-discrimination provisions of the Member as set forth in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise set forth in a Notice to the Vendor.

ARTICLE 9.05 EQUAL EMPLOYMENT OPPORTUNITIES FOR MINORITIES AND WOMEN

a) The Vendor shall not discriminate against employees or applicants for employment because of race, creed, color, sex, national origin, or sexual orientation, age, disability, genetic predisposition or carrier status, marital status, or ancestry, and shall undertake or continue existing programs of affirmative action to ensure that minority group members and women are afforded equal

employment opportunities without discrimination. As used in this clause, “affirmative action” shall mean recruitment, employment, job assignment, promotion, upgrading, demotion, transfer, lay-off or termination, and rates of pay or other forms of compensation.

b) At the request of the Member, the Vendor shall request each employment agency, labor union, or authorized representative of workers with which it has a collective bargaining or other agreement or understanding, to furnish a written statement that such employment agency, labor union or authorized representative will not discriminate on the basis of race, creed, color, sex, national origin, affectional or sexual orientation, age, disability, genetic predisposition or carrier status, marital status, or ancestry, and that such employment agency, labor union or authorized representative will affirmatively cooperate in the implementation of the Vendor’s obligations herein.

c) The Vendor shall state, in all solicitations or advertisements for employees, that in the performance of this Agreement all qualified applicants will be afforded equal employment opportunities without discrimination because of race, creed, color, sex, national origin, affectional or sexual orientation, age, disability, genetic predisposition or carrier status, marital status, or ancestry.

d) The Vendor shall comply with any additional provisions included in Appendix A- E-ZPass Group Members Terms & Conditions, or in a Notice to the Vendor.

ARTICLE 9.06 MINORITY/ WOMEN/SMALL OWNED BUSINESS ENTERPRISE (M/W/S/BE) REQUIREMENTS

It is the policy of the Member that minority owned business enterprises (“MBE”), women owned business enterprises (“WBE”), and small business enterprises (“SBE”) should have the opportunity to participate in the performance of the Member’s procurement of goods and/or Services. The Member desires participation of MBEs, WBEs and SBEs for the performance of this Agreement. Vendor shall comply with any procedures of the Member designated on Appendix A - E-ZPass Group Members Terms & Conditions or otherwise required by applicable law in order to demonstrate that a good faith effort has been made to accomplish the above-stated initiative.

ARTICLE 10 - TESTS, ORDERS, DELIVERY, AND INVENTORY

ARTICLE 10.01 TESTS

The Vendor agrees to perform a sequence of tests to assure ETC Equipment performance in accordance with the Test Requirements in Part III, Technical Requirements for ETC Equipment including Section 3.8 for Transponders and Section 4.11 for Readers including the Attachment 4- E-ZPass Group Test Plan and in this Article 10.01. The Vendor shall coordinate Product Certification Tests with the E-ZPass Group in advance during the Product Certification period. The Vendor also agrees that all such Members or their designated representative(s) shall have the right to observe all testing performed in accordance with this Article 10.01. The Vendor shall provide the Members thirty (30) calendar days advance Notice of the date and location of such tests.

The Vendor shall bear the cost of all tests specified in this Article 10.01 and such costs shall be deemed included in the prices of ETC Equipment specified in Appendix D-Equipment, Components, Services Listing and Pricing Schedule. Such costs shall include all retesting required in order to

obtain Product Certification with E-ZPass Group Approval.

Product Certification Tests shall be performed by the Vendor in accordance with the Technical Requirements for all Members and subject to E-ZPass Group Approval. The Vendor shall provide evidence thereof to all Members in the form of written inspection and test reports. The Product Certification Tests shall be conducted at a facility within North America approved by the E-ZPass Group. The Vendor shall complete Product Certification Tests for each Model of Equipment for each manufacturer of such Model. The Product Certification Tests shall include testing of actual product samples of such Models from each manufacturer utilized by the Vendor.

Product Certification Tests shall also be conducted by the Vendor for any existing Vendor or New Vendor that manufactures a new Model of any ETC Equipment prior to shipping any such Equipment to any Member. Upon request by the Vendor with notice to the Members, the E-ZPass Group in its discretion, may approve equivalent evidence that any such new manufacturer has produced Equipment that performs in accordance with the applicable requirements of the Technical Requirements.

For purposes of this Article a "New Vendor" is defined as (i) the manufacturer or supplier of a Model of Equipment where such Model has not received E-ZPass Group Approval, or (ii) the manufacturer or supplier of a certain Model of Equipment where such Model received E-ZPass Group Approval based upon specific Equipment that was neither manufactured nor supplied by such manufacturer or supplier.

It shall be the Vendor's responsibility, at no additional cost to any Member, to devise and build the test simulators necessary to perform the unit and ETC Equipment tests. Such simulators shall provide simulation(s) of all toll lane configurations included in the Technical Requirements and shall further be capable of demonstrating compliance with the Technical Requirements and representations made in the Technical Requirements.

The Vendor shall not ship any Equipment to any Member until the E-ZPass Group has given written approval that the specified Model of Equipment for the specified manufacturer or manufacturers identified in the Product Certification Test has satisfied all criteria of the Product Certification Tests. Once approval has been granted by the E-ZPass Group, the Vendor shall deliver any such Equipment ordered by the Member to the Member as specified in its Proposal.. The Vendor shall not ship any Equipment from any new manufacturer until the E-ZPass Group has given additional Product Certification Test approval for such new Vendor as provided above. If the Member has submitted an Equipment Order and the E-ZPass Group has not granted E-ZPass Group Approval stating that the specified Model of Equipment for the specified manufacturer or manufacturers has satisfied all criteria of the Product Certification Tests, such Equipment Order may be canceled by the Member by Notice given within seven (7) Business Days after the earlier of the Scheduled Delivery Date or E-ZPass Group Approval, if it is granted.

ARTICLE 10.02 ORDERS

a) If the Member elects to acquire any of the ETC Equipment and Services items listed in Appendix D-Equipment, Components, Services Listing and Pricing Schedules, the Member shall submit an order in writing.

- b) The Member may designate an agent or other third party to order, purchase, and/or accept deliveries of Equipment; order Services; and license the Software for use by the Member or any person or entity providing services to or on behalf of the Member. Such designations shall not affect the Vendor's obligations to comply with the conditions set forth herein. The Member shall notify the Vendor in writing of any parties other than the Member's Project Manager authorized or designated to order, purchase, and/or accept deliveries of Equipment; order Services; and license the Software for use by the Member or any person or entity providing services to or on behalf of the Member.
- c) The Vendor shall submit an Equipment or Services Orders in accordance with Member's purchasing requirements to generate data including invoices, manifest and other Equipment information required to complete the purpose order. The service order may also designate any specific third parties with whom the Vendor shall coordinate in any installation, calibration, testing, or adjusting the Equipment, and other Services.
- d) The Vendor shall furnish an estimate for completion of the required Installation technical support, initial calibration services, or time and material Maintenance Support Services within five (5) Business Days of receipt of the Service Order, based on the time and material costs included in Appendix D-Equipment, Components, Services Listing and Pricing Schedules.
- e) The Member is not bound to order installation technical support, initial calibration services, or time and material Maintenance Support Services from the Vendor by virtue of the Vendor's furnishing an estimate for such Services. The Vendor shall not perform such Services unless the Member has accepted the Vendor's quotation, finished the Vendor with a purchase order number and issued a written notice to perform the specifically designated Services.
- f) If the Member accepts the Vendor's quotation, the Vendor shall not perform additional work above and beyond the initial time and material estimate unless the Member has authorized in writing such additional work.
- g) If the Member orders initial calibration services or installation support Services and the Equipment is subsequently repaired or replaced in accordance with the warranty provisions of this Agreement, the Vendor shall perform calibration or installation support of any such repaired or replaced Equipment at no additional cost to the Member.

ARTICLE 10.03 INVENTORY LEVELS AND DELIVERY OBLIGATIONS

- a) The Vendor shall manufacture Transponders and Readers to be held in inventory for such period of time and in such quantities as determined by the Technical Requirements.
- b) The Vendor shall maintain an inventory sufficient to deliver the Member's and other Members' ongoing Equipment Orders within the order dates specified in the Vendors proposals and to deliver replacements of Equipment in accordance with the warranty provisions of this Agreement.
- c) The Member shall be responsible only for the costs of its own Equipment Orders and shall have no responsibility for any cost the Vendor may incur in maintaining inventory levels, including those required under this Article 10.03. The Member shall be under no obligation to revise or update any estimates submitted.

d) The Member agrees to provide good faith, non-binding estimates of forecast orders on an annual basis in order for Vendors as a courtesy for planning. These good faith estimates shall not form the basis of any claims. Such good faith estimates shall be provided on or about the anniversary of initial E-ZPass Group Approval of Product Certification Test, or such other annual date as may be approved by the E-ZPass Group.

e) Except as otherwise provided in Article 2.14, Extension of Time, Article 2.15, Extension of Time Not Cumulative, and Article 10.01, Tests, the Vendor shall deliver Equipment to the Member's designated delivery location within two (2) Business Days of the Scheduled Delivery Date set forth in the Equipment Order, provided, however, that delivery shall not be made to the Member on a Business Day that is observed as a holiday by the Member, if applicable, and the two Business Day time period shall be extended until the next following Business Day which is not observed as a holiday by the Member.

f) All deliveries under this Agreement shall be made during Business Hours unless the Member designates in writing other hours.

g) If the Member desires expedited delivery of Equipment, the Member shall make a written request to the Vendor. The Vendor shall commence shipment of Equipment for which the Member has requested expedited delivery to the designated delivery location specified in the written request within twenty-four (24) hours from the time the Vendor receives written request, which request may be via facsimile. Any charges for special or expedited delivery of the Equipment as requested by the Member shall be borne by the Member to the extent such charges exceed the Vendor's cost of delivery for a similar quantity of Equipment pursuant to a regular Equipment Order.

h) Any delay in the Vendor's performance obligations in accordance with Article 10.02, Orders and this Article 10.03, shall be subject to the provisions of Article 2.14, Extension of Time, Article 2.15, Extension of Time Not Cumulative, and Article 8.08, Liquidated Damages.

ARTICLE 10.04 FOB TERMS

The Vendor shall be responsible for all transportation charges to the FOB destination point, freight prepaid and allowed, with such point being the Member's designated delivery location(s) specified in Appendix A - E-ZPass Group Members Terms & Conditions, or as otherwise provided in a specific Equipment Order, in accordance with Article 10.02, Orders. This point shall also be the point at which the Member takes title to the delivered Equipment in accordance with Article 7.09, Warranty of Title.

ARTICLE 10.05 PACKING, BOXING, AND DELIVERY CHARGES

The Vendor shall not charge the Member and the Member shall not be responsible for costs incurred by the Vendor Parties for packing, boxing, containers or any other matters relating to the preparation for shipment or delivery, unless explicitly provided for in subparagraph (c) of Article 10.03, Inventory Levels and Delivery Obligations.

ARTICLE 10.06 ACCEPTANCE OR REJECTION OF DELIVERIES

Each delivery shall be accompanied by a Packing Slip listing the units included in the delivery. The

Member will determine whether to accept or reject deliveries, after the Member has fully inspected the Equipment. Except as otherwise provided herein or on Appendix A - E-ZPass Group Members Terms & Conditions, acceptance or rejection of deliveries shall occur within ten (10) Days of the Member's receipt of deliveries.

If the Vendor fails to make delivery within the time period provided in Article 10.03; or, if the Member finds that the Equipment delivered fails to conform to the requirements of this Agreement in quality, number, or otherwise at any time finds the Equipment to be deficient in material or workmanship, the Member may reject the Equipment in full or part and supply notice of such rejection to the Vendor.

The exercise by the Member of its rights to inspection hereunder or the Member's acceptance of deliveries shall in no way be deemed a waiver by the Member of (i) Member's right to later reject, revoke acceptance, or recover damages for deliveries accepted which are not free from defects, or (ii) the Vendor's obligation to deliver conforming Equipment. If the quantity of conforming units shown on the Packing Slip is not equal to the quantity actually delivered by the Vendor, the Member will ignore the Packing Slip and will apply the terms and conditions of this Agreement to the quantity actually delivered.

ARTICLE 10.07 REMOVAL OF REJECTED EQUIPMENT

The Vendor shall remove from the Member's designated location at its own expense and within a reasonable time (not to exceed fifteen (15) Days after notice of rejection), any Equipment rejected by the Member as nonconforming, as an over shipment, or due to early or late delivery. If the Member rejects the same Equipment from the Vendor for a second time, the Vendor shall be liable to the Member for all charges incurred by the Member in connection with inspection of the Equipment in accordance with the provisions of Article 8.04, Actual Damages. In addition to actual out-of-pocket costs incurred by the Member, the Vendor will be charged the Member's reasonable costs for each laboratory analysis performed, including analysis performed directly by the Member. The Vendor shall promptly pay such amounts to the Member.

SAMPLE AGREEMENT EXECUTION PAGE

(THIS PAGE WILL BE MEMBER-SPECIFIC IN FINAL AGREEMENTS)

In Witness Whereof, this Agreement is executed by the Member by its Authorized Officer, and by the Vendor by its duly authorized officer, all as of the "Agreement Date" set forth herein.

MEMBER:

By:

Its:

[Signature page to be revised as applicable to each Member]

VENDOR:

By:

Its:

Vendor's Notice Address for purposes of Article 1.16, Notices:

Section 2: Additional Terms & Conditions

2.1 Monthly Reports

The Vendor shall furnish the E-ZPass Technology Manager and the Operator monthly, the following information for the Operator: total number of Equipment orders made during the calendar quarter, the quantity and type of Equipment delivered during the calendar quarter, aggregate dollar value of all Equipment orders, time to ship for equipment ordered, equipment returned by batch or serial number and results of returned equipment for the Operator during the calendar month. In addition, the Vendor shall furnish the E-ZPass Technology Manager with copies of all Operator reports. The Vendor shall furnish the E-ZPass Technology Manager and the Operator monthly reports on all warranty Services and all optional technical support and maintenance Services performed for the Operator and each of the other E-ZPass Group Members. Such report shall include but not be limited to: (i) the total number of warranty claims made by the Operator and each of the other E-ZPass Group Members during the calendar quarter and for the previous twelve months and the types of Equipment affected; (ii) total number of warranty calls by location during the calendar quarter and for the previous twelve months; and (iii) the total number of instances in which the Vendor has provided technical support or maintenance Services within the calendar quarter and previous twelve months and the locations at which they were provided. All monthly reports will be distributed to all parties and addresses as supplied to the Vendor by the E-ZPass Technology Manager. Such reports are required even if no billings, invoice, or Equipment order(s) are made or paid or no warranty or optional technical support and maintenance Services are provided.

2.2 Quality Control and Assurance

The Vendor shall establish and maintain an effective Quality Control and Assurance Program to assure compliance with the requirements of this Agreement. The Vendor shall develop the programs and procedures used to implement this process. A Quality Assurance Plan containing the documented program of procedures, processes and product shall be submitted to the IAG before the completion of the First Article Test for review and IAG Approval. Design of this program shall be based upon consideration of the technical and manufacturing aspects of production and related engineering design and materials. The program shall assure adequate quality throughout all areas of this performance; for example, design, development, fabrication, processing, assembly, inspection, test, maintenance, packaging, shipping, storage, site preparation and installation. All supplies and Services under this Agreement, whether manufactured or performed within the Vendor's plant or at any other source, shall be controlled at all points necessary to assure conformance to the requirements of this Agreement. In accordance with the Quality Control and Assurance Program, the Vendor shall be responsible for detecting and correcting deviations from any requirement in this Agreement and for reporting such deviations to the IAG Members. The Vendor's quality assurance program is preferred to be in accordance with ISO 9000. The Vendor shall ensure that any need for corrective action identified as part of its ongoing quality assurance program is reported to the IAG and E-ZPass Group Members and that any remedial action program is identified to the IAG and performed in accordance with Article 7.06, Defects. The Vendor shall report quarterly to the IAG Project Coordinator and each E-ZPass Group Member's Project Manager on its quality assurance efforts. Where applicable, reports as described in Section 2.1 will be used for quality assurance monitoring and reporting. The quality control process shall ensure, at a minimum, accurate problem logging (description and effect of problem), follow-up tracking (assignment of personnel and status), tracking of progress for corrections/revisions, and disposition of the problem throughout the testing, transition, implementation, and on-going Services phases of this Agreement. The Vendor manufacture tracking data shall include batch numbers to facilitate the monitoring of quality and potential product recalls. The authority and responsibilities of those Vendor

personnel in charge of the design, production, testing and inspection of quality shall be clearly stated. The program shall facilitate determinations of the effects of quality deficiencies and quality costs on price. Facilities and standards such as drawings, engineering changes, measuring equipment and the like, which are necessary for the creation of the required quality, shall be effectively managed. The program shall include effective control of purchased materials and subcontracted work. Manufacturing, fabrication and assembly work conducted within the Vendor's plant shall be controlled completely by the Vendor. The Vendor's quality assurance plan shall identify the organizational elements and key staff responsible for managing the overall quality program, and shall clearly define the related responsibilities and functions molding both policy and action. Provisions shall be made and documented for regular management review of the status and adequacy of the quality assurance plan. The Proposer shall describe fully what quality assurance program it would use to monitor quality of all aspects of the ETC Subsystem and Services provided under this Agreement. The Proposer shall clarify how its quality assurance program is to be performed within its existing program management structure, including the person(s) with primary responsibility for the quality assurance program, the procedures to be followed, the lines of authority to be established, and the methods of communication to be used. The Proposer shall indicate how the results of its quality assurance efforts will be reported to the IAG and E-ZPass Group Members on an ongoing basis.

2.3 Pervasive Defect Thresholds

In the event that in any given month beginning on the First Contract Date as defined in Part II, Defined Terms & Acronyms, one (1) percent of the total number of OBUs delivered to all E-ZPass Group Members in any given month or one (1) percent of the total number of OBUs put into service by all E-ZPass Group Members in a given month or one-half (.5) percent of the cumulative number of OBUs from the beginning of the First Contract Date or two (2) percent of the total number of items of any particular Model number contained within all other Equipment (RSE) purchased or put into service or Software licensed by the Operator or other E-ZPass Group Members are experiencing a degradation in performance that require the performance of warranty Services, the Vendor agrees that a "Pervasive Defect" shall be deemed to be present in such affected types of Equipment. The Vendor shall remedy such Pervasive Defects as specified in Article 7.06, Defects.

APPENDIX A - E-ZPass Group Members Terms & Conditions

The E-ZPass Group Members listed in Exhibit A-7, Forms have Member specific Terms & Conditions that will be 'paper clipped' to the Terms and Conditions of the Contract as Appendix A. All Responsive Vendors shall adhere to these Terms and Conditions to execute a Purchase Order with the Member. Please refer to Exhibit A-7 for all E-ZPass Group Member Terms and Conditions and submit required forms as part of the Proposal.

Forms for E-ZPass Group Member Terms and Conditions shall be submitted at the execution of the Contract. If Proposers take any exceptions to the Terms and Conditions, they shall be noted in the Proposers Technical Proposal.

If Proposers take any exceptions to terms as outlined in Appendix A, Agency Member may not be able to purchase Equipment or Services from a Vendor.

APPENDIX B – LICENSE AGREEMENT

See Article 4.02, Licenses. The proposed License Agreement shall be submitted as part of the Proposer's response to Section 2.8 to be evaluated as indicated in Sections 1.11 and 2.8 of this RFP and negotiated as indicated in Section 1.11.5. The Vendor shall provide the Member with the licenses upon execution of this Agreement with the form of license agreement to be annexed hereto as Appendix B-License Agreement.

APPENDIX C – CONFORMED TECHNICAL REQUIREMENTS

The updated Technical Requirements per E-ZPass Group issued Contract Amendments and other changes agreed to by EZP Group and the Proposer.

APPENDIX D – EQUIPMENT, COMPONENTS, SERVICES LISTINGS AND PRICING SCHEDULES

The Price Proposal Forms indicating the Proposers' equipment and services, along with the not to exceed (maximum) price. Please refer to Exhibit A-8. Appendix D will be updated by Contract modification to incorporate the latest price quotation as submitted.

APPENDIX E – NOTICE ADDRESSES FOR E-ZPASS GROUP MEMBERS

For any Notice to E-ZPass Group Members required under this Agreement, the Vendor shall refer <https://www.e-zpassiag.com/about-us/members> which may be amended from time to time in accordance with Article 1.16 Notices, of this Agreement. Notice to IAG E-ZPass Group Members shall include a copy to the IAG E-ZPass Group Members to the attention of the person identified below and at the address indicated herein. Additional details and directions on Notices, such as for insurance purposes, for each of the E-ZPass Group Members are provided in Forms E-ZPass Group Members Terms & Conditions. The E-ZPass Group Members for the Executed Contract as they are subject to change until Notice of Award.

Note: For updated contact information for each E-ZPass Group Member, the contact list can be provided by request. Please send an email request to Eliza Davis at svc_IAG_EZPASS@ncdot.gov.