



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

April 29, 2026
AGENDA ITEM #7

Discuss and consider approving an agreement with EZIOP Entities that allows for interoperability with tolling entities operating on the EZIOP Hub

Strategic Plan Relevance:	Regional Mobility
Department:	Information Technology
Contact:	Greg Mack Director of IT and Toll Systems
Associated Costs:	None
Funding Source:	Operations Budget
Action Requested:	Consider and act on draft resolution

Summary:

Background – The Central United States Interoperability (CUSIOP) group is comprised of agencies from Texas, Oklahoma and Kansas. The 10 agencies represented by the CUSIOP group - the Central Texas Regional Mobility Authority, Fort Bend Grand Parkway Toll Road Authority, Harris County Toll Road Authority, Kansas Turnpike Authority, North Texas Tollway Authority, Oklahoma Turnpike Authority and E470 Colorado Public Highway Authority - negotiated an inter-local agreement (ILA) in 2016 regarding the interoperability of toll systems and transponders. The Agreement also establishes how the CUSIOP hub would be governed and how the agencies would coordinate efforts to continuously expand interoperability options for the benefit of their customers.

E-ZPass Interagency Group (E-ZPass Group) is an electronic toll collection system used on toll roads, toll bridges, and toll tunnels in the eastern half of the United States. The group itself is composed of several states' member agencies, which share the same technology and allow travelers to use the same transponder on toll facilities throughout the network. The E-ZPass group has established a toll transaction processing hub that will facilitate consolidation and processing of transactions to and from agencies within the E-ZPass region and to the other National Interoperability Hubs and regions.

Current Action - Interoperability Agreement between CUSIOP and E-ZPass agencies to facilitate toll transaction processing and exchange of associated revenue.

Previous Actions - In June 2017 the Board approved an amendment to add other agencies in as the Southern States initially Florida, North Carolina, South Carolina and Georgia Interoperability (“SSIOP”) Agreement. In September 2017 the Board approved two amendments to the CUSIOP Agreement.

Staff Recommendation - Staff recommends approval of Central United States Interoperability Agreement and EZPASS Interoperability Group.

Backup Provided - Draft Resolution
CUSIOP EZIOP Agreement

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 26-0XX

**APPROVE AN AGREEMENT BETWEEN THE CENTRAL UNITED STATES
INTEROPERABILITY GROUP AND THE E-ZPASS INTERAGENCY GROUP
FOR INTEROPERABILITY WITH THE NORTHEASTERN UNITED STATES**

WHEREAS, by Resolution No. 16-009, dated February 24, 2016, the Central Texas Regional Mobility Authority (Mobility Authority) Board of Directors (Board) approved an agreement forming the Central United States Interoperability Partners (CUSIOP) along with the Fort Bend Grand Parkway Toll Road Authority, Harris County Toll Road Authority, Kansas Turnpike Authority, North Texas Tollway Authority, Oklahoma Turnpike Authority and Texas Department of Transportation; and

WHEREAS, the Colorado E-470 Public Highway Authority joined the CUSIOP in 2024; and

WHEREAS, by Resolution No. 17-035, dated June 28, 2017, the Board approved the Southern States Interoperability Agreement to provide interoperable toll operations between the CUSIOP and toll entities in Florida, North Carolina, South Carolina and Georgia as well as the ability to add other agencies operating on the Southeast Interoperability (SEIOP) Hub in the future; and

WHEREAS, the CUSIOP has negotiated a proposed agreement to provide interoperable toll operations with the E-ZPass Interagency Group (or EZIOP Entities) which encompasses 42 toll entities across 20 states operating thru the EZIOP Hub as well as the ability to add other agencies operating on the EZIOP Hub in the future; and

WHEREAS, the Executive Director recommends that the Board approve the agreement in the form or substantially the same form attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED, that the Board hereby approves this new interoperability agreement and authorizes the Executive Director to finalize and execute the proposed interoperability agreement in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 29th day of April 2026.

Submitted and reviewed by:

Approved:

James M. Bass
Executive Director

Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

INTEROPERABILITY AGREEMENT
BETWEEN THE CUSIOP ENTITIES AND THE EZIOP ENTITIES

This Interoperability Agreement (this “Agreement”) is made effective as of the Commencement Date, as such term is defined herein, by and among the CUSIOP Entities, as such term is defined herein, and the EZIOP Entities, as such term is defined herein, who have executed this Agreement on the signature page attached hereto (and such other CUSIOP Entities and EZIOP Entities which may hereafter execute this Agreement). Each of the CUSIOP Entities and EZIOP Entities that have executed this Agreement may be referred to herein individually as a “Party” and collectively as the “Parties”. Capitalized terms used herein are as defined in Section 2 below.

1. Purpose of Agreement.

a. The Parties are toll collection entities that own and/or operate Toll Facilities. The EZIOP Entities are participants in transactions through the EZIOP Hub operated by or on behalf of such EZIOP Entities, and are parties to one or more agreements which provide for interoperability for the collection of toll revenues by connecting through the EZIOP Hub. The CUSIOP Entities are participants in transactions through the CUSIOP Hub operated by or on behalf of such CUSIOP Members, and are parties to one or more agreements which provide for interoperability for the collection of toll revenues by connecting through the CUSIOP Hub. The Parties are entering into this Agreement to set forth the terms and conditions of their agreement regarding the interoperability of toll transactions between the EZIOP Hub and CUSIOP Hub, with respect to their respective Parties.

b. In order to be eligible to participate in this Agreement, the Participating Entities will provide that Customers of any Participating Entity can pay for tolls incurred on all other Participating Entities’ Toll Facilities without applying for and maintaining an account with the owner/operator of those other Toll Facilities.

2. Definitions.

a. “Administrative Contacts” means the individuals designated by the EZIOP Entities and the CUSIOP Entities, respectively, to receive notices on their behalf under this Agreement. The initial Administrative Contacts for the EZIOP Entities and for the CUSIOP Entities are set forth in Section 28 below. The EZIOP Entities and the CUSIOP Entities may change the individuals and addresses of their respective Administrative Contacts from time to time upon written notice.

b. “Away Agency” when applied to a Party to this Agreement has the meaning ascribed to that term in the Hub Rules.

c. “Away Hub” when applied to the CUSIOP Hub or EZIOP Hub has the meaning ascribed to that term in the Hub Rules.

d. “Affiliate Entities” means those tolling entities that lack a direct connection to the EZIOP Hub or CUSIOP Hub, but whose interoperable Transaction Information is processed through one of the Hubs under a contractual, sponsorship, or other arrangement with another entity that directly connects to one of the Hubs. Each of the Affiliate Entities may be referred to individually as an “Affiliate Entity”.

e. "Commencement Date" means the date upon which the later of (i) IAG's Executive Management Committee has approved the effectiveness of this Agreement pursuant to its organizational requirements, and (ii) the CUSIOP Steering Committee has approved the effectiveness of this Agreement pursuant to its organizational requirements. A dated copy of each such approval is attached hereto as Exhibit D.

f. "Confidential Information" means, without limitation, a Party's research, development and trade secrets, business affairs, and other information which is designated in writing as Confidential Information. Information shall not be considered Confidential Information to the extent that it (i) is or becomes a part of the public domain, or (ii) is already known free of any confidentiality obligation, or (iii) is independently developed without access to the Confidential Information, or (iv) is disclosed under proper judicial or governmental process, or (v) is approved for release by written authorization.

g. "CUSIOP Agreement" means the Agreement Regarding Interoperability of Toll Systems and Transponders dated as of March 7, 2017, as amended from time to time in accordance with its terms, to which the CUSIOP Entities are a party.

h. "CUSIOP Entities" means those entities that own or operate a toll facility and are parties to the CUSIOP Agreement. Each of the CUSIOP Entities may be referred to individually as a "CUSIOP Entity". In order to be a CUSIOP Entity, an entity must be and remain a party to the CUSIOP Agreement at the time of its execution of this Agreement and at all times prior to its withdrawal from or termination from this Agreement in accordance with the terms hereof.

i. "CUSIOP Facilities" means toll facilities owned and/or operated by any CUSIOP Entity or Affiliate Entity thereof during the term of this Agreement. Each of the CUSIOP Facilities may be referred to individually as a "CUSIOP Facility".

j. "CUSIOP Hub" means the interoperability system used by the CUSIOP Entities to transmit toll Transaction Information and payments pertaining to interoperable transactions.

k. "Custodian" the persons or entities appointed to manage and perform the collection and disbursement of payments between the entities connected to the EZIOP Hub and CUSIOP Hub, respectively, as more fully described in Section 7 below.

l. "Customer" means a person or entity that has established an account with a Party that is tied to a payment mechanism for the payment of tolls incurred by a vehicle or vehicles associated with such account by transponder(s) issued by that Party and/or license plate(s) account information on file with that Party.

m. "Customer Account Information" means all information about an account holder and the vehicles utilizing that account, including the account holder's name, address, and any other identifying characteristics; the make, model, year and plate number of such vehicles; all photographs, microphotographs, videotapes and other recorded images of such vehicles created by equipment at any Toll Facility; and itemized statements of account deductions for the use of such system.

n. "Customer Use Agreement" has the meaning ascribed to that term in the Hub Rules.

o. "Effective Date" means, with respect to each Party, the date upon which such Party executed the signature page to this Agreement or executed a Joinder Agreement, as applicable, evidencing its agreement to become a Party to this Agreement.

p. "EZIOP Agreement" means the E-ZPass Interagency Group Second Amended and Restated Operations Agreement dated as of October 14, 2021, as it may be amended from time to time in accordance with its terms, to which the EZIOP Entities are a party.

q. "EZIOP Entities" means those entities that own or operate a toll facility and are parties to the EZIOP Agreement. Each of the EZIOP Entities may be referred to individually as an "EZIOP Entity". In order to be an EZIOP Entity, an entity must be and remain a party to the EZIOP Agreement at the time of its execution of this Agreement and at all times prior to its withdrawal from or termination from this Agreement in accordance with the terms hereof.

r. "EZIOP Facilities" means toll facilities owned and/or operated by any EZIOP Entity or an Affiliate Entity thereof during the term of this Agreement. Each of the EZIOP Facilities may be referred to individually as an "EZIOP Facility".

s. "EZIOP Hub" means the interoperability system used by the EZIOP Entities to transmit toll Transaction Information and payments pertaining to interoperable transactions.

t. "Guaranteed Transactions" means a Transaction with respect to which the Home Agency will agree to guarantee payment to the Away Agency in the specific fact situations and subject to the terms and conditions specified for Transaction guarantees described in the Hub Rules.

u. "Home Agency" when applied to CUSIOP Hub or EZIOP Hub has the meaning ascribed to that term in the Hub Rules.

v. "Hub Rules" means (i) the interoperability business rules in the form attached hereto as Exhibit A and incorporated herein, and (ii) the ICD (defined below), as they each may be amended from time to time in accordance with the terms of Section 22 below. The Hub Rules are based on, but not identical to, the National Interoperability Business Rules ("NIOP Rules") and National Interoperability Interface Control Document ("NIOP ICD") developed by the National Interoperability Committee of the International Bridge, Tunnel & Turnpike Association.

w. "Hubs" means the CUSIOP Hub and the EZIOP Hub.

x. "IAG" means E-ZPass® Interagency Group.

y. "ICD" means the then-current version of the interface control procedures which is available at <https://e-zpassgroup.org/interoperability> or such other web address as the Parties may hereafter agree.

z. "Interoperability" (regardless of whether the term is capitalized) means the exchange of data and settlement of payments for Transactions between a Home Agency and an Away Agency.

aa. "Participating Entity" a Party or any other Affiliate Entity which is subject to this Agreement.

bb. "Sponsor Party" means a Party that allows an Affiliate Entity to process its Transaction Information and payments through a Hub under a contractual, sponsorship, or other arrangement.

cc. "Tag" has the meaning ascribed to that term in the Hub Rules.

dd. "Toll Facilities" means EZIOP Facilities and CUSIOP Facilities. Each of the Toll Facilities may be referred to individually as a "Toll Facility".

ee. "Transaction" has the meaning given to that term in the Hub Rules.

ff. "Transaction Information" means the information used to process a Transaction in accordance with the Hub Rules.

gg. "Valid Transaction" has the meaning ascribed to it in the Hub Rules.

3. General Rules For Interoperability. The Parties agree to the following general rules as set forth in this Section 3 with respect to achieving and maintaining interoperability under this Agreement:

a. The Parties acknowledge and agree that specific rules, standards, procedures, and requirements for interoperability for the processing of Transactions of EZIOP Entities through the CUSIOP Hub and the processing of Transactions of CUSIOP Entities through the EZIOP Hub shall be as set forth in the Hub Rules.

b. Each Party shall maintain, or cause to be maintained, and cause its Affiliate Entities to maintain, Transaction Information for a period of time no less than that as set forth in the Hub Rules following from the date of the applicable Transaction. The Parties will make Transaction Information available in accordance with the Hub Rules in the event of a Transaction dispute. For the avoidance of doubt, a Party shall not be required to violate any applicable laws, rules, or regulations in order to comply with the obligations under this Section 3(b). Furthermore, and notwithstanding this subsection or any other provision of this Agreement, except as provided in Section 8(c) below, a Party or Affiliate Entity shall not use motor vehicle registration, Transaction Information or Customer Account Information derived from a license plate on a vehicle using a Toll Facility, including information obtained by the use of automated enforcement technology for purposes other than those related to: (1) toll collection and toll collection enforcement; and (2) law enforcement purposes in response to request by a law enforcement agency made in accordance with all laws applicable to such request.

c. When a Participating Entity which is an Away Agency determines through a Tag or license plate that the vehicle incurring the toll is associated with an account maintained with another Participating Entity which is the Home Agency, at the time of the Transaction, and the Home Agency receives the Transaction within the time period and in the manner required by the Hub Rules, the Home Agency will forward the toll payment to the Away Agency upon receipt of funds, except that in the case of Guaranteed Transactions when the Home Agency agrees to forward the toll payment regardless of whether the Customer's account with the Home Agency contains adequate funds to pay the toll.

d. The Participating Entities agree that to the extent not prohibited by law or other binding legal authority with respect to a Transaction with another Party, they shall settle all payment amounts to one another on a periodic basis as provided in the Hub Rules.

4. Transaction Fees. To compensate the Home Agency for processing an accepted toll Transaction submitted by an Away Agency, the Away Agency shall owe and shall pay to the Home Agency in accordance with the Hub Rules a Transaction fee. Such compensation shall be due under this Agreement only for Transactions incurred when the Customer of an EZIOP Entity travels on a Toll Facility owned or operated by a CUSIOP Entity or vice versa. The Transaction fees in effect as of the Commencement Date are as set forth on Exhibit B attached hereto, which may be amended from time to time in the same manner as described in Section 22 of this Agreement for amendment of the Hub Rules. Transaction fees shall be calculated in the manner described in the Hub Rules.

5. Technical Specification. The Parties agree that so long as they are Participating Entities they will endeavor to maintain network connectivity with sufficient capacity and functionality to satisfy the requirements of the Hub Rules. The Parties agree to exchange Transactions from their toll collections systems in accordance with the Hub Rules. Notwithstanding anything to the contrary in this Agreement, in the event of a conflict between the Hub Rules and this Agreement, the terms of this Agreement will govern and control. Further, it is agreed that if any of the EZIOP Entities or any of the CUSIOP Entities implement changes in their technologies or new technologies which may impact interoperability as contemplated by this Agreement, the applicable EZIOP Entity or CUSIOP Entity shall provide no less than 120 days' notice to the Administrative Contacts.

6. Exchange and Processing of Transaction Information.

a. The Parties agree to exchange information and process interoperable Transactions according to the Hub Rules.

b. Each Party shall notify its Customers in writing that if the Customer utilizes the Toll Facilities of an Away Agency, this subjects the Customer to all rules, regulations, terms, and toll charges of the Away Agency and as may otherwise be required by applicable law.

c. A Party which is an EZIOP Entity or CUSIOP Entity may enter into an agreement to have its Transactions processed by another Party to this Agreement, provided that the Party which agrees to process such Transactions and the Party which requested that such Transactions be processed by another Party execute and deliver, by delivery to the Administrative Contacts, an agreement whereby the Party which agrees to handle the processing of the Transactions assumes responsibility and liability for the Transactions processed on behalf of the other Party.

d. For all purposes under this Agreement, (i) a Transaction incurred on an Affiliate Entity's Toll Facility shall be treated as if the Transaction were incurred on the Sponsor Party's Toll Facility and (ii) a Customer of an Affiliate Entity shall be treated as if the Customer were the Sponsor Party's Customer, to the end that all other Parties shall deal solely with the Sponsor Party with regard to interoperable Transactions involving the Affiliate Entity. Likewise, the Sponsor Party shall be obligated to seek its Affiliate Entity's compliance with all provisions of this Agreement that impose obligations or responsibilities on a Party (e.g., by way of example only and not of limitation, confidentiality obligations under this Agreement), and vis a vis the other Parties, all such obligations and responsibilities shall, to the extent permitted by law, be deemed those of the Sponsor Party, even if arising with respect to acts or omissions of the Affiliate Entity. A Sponsor Party shall require its Affiliate Entity to acknowledge and agree in writing that all of the Affiliate Entity's interoperable transactions processed pursuant to this Agreement must comply with

and shall be subject to all of the terms and conditions in this Agreement, and that by accepting or benefitting from any provision of this Agreement, the Affiliate Entity shall be deemed to have so acknowledged and agreed.

e. Each Party shall include a provision in each Customer Use Agreement for accounts with their respective Customers requiring the Customer to (i) acknowledge that its use of a Tag at an Away Agency's Toll Facility subjects the Customer to the rules and regulations of that facility, and (ii) authorizes the Customer's Home Agency and such Away Agency to share Transaction Information for the purposes of invoicing and collecting the proper toll charges for the use of the Away Agency's Toll Facility.

f. Nonpayment of a toll incurred by a Customer of a Home Agency shall, at the sole option of the Away Agency, and following the expiration of the time for payment set forth in the Hub Rules, be collected by the Away Agency from the vehicle's registered owner according to the Away Agency's enforcement procedures in accordance with all applicable state laws, rules, and regulations. The Parties each acknowledge and accept the risk described in this Section 6(f).

7. Custodial Services. The EZIOP Entities and CUSIOP Entities will each appoint a Custodian for the collection and disbursement of payments between the Parties connected to the EZIOP Hub and CUSIOP Hub, respectively. The Custodian appointed by each may be removed and a new custodian appointed by the appointing party at any time. Each custodial agreement shall contain terms requiring the Custodian to establish a deposit account for the collection and disbursement of payments related to interoperable Transactions transmitted by the CUSIOP Hub or the EZIOP Hub, as applicable, to deposit, reconcile, and disburse funds according to Hub Rules. The terms, conditions, and payments for the services for each of the Custodians shall be as set forth in a custodial agreement between the respective Custodian and the EZIOP Entities or CUSIOP Entities, as applicable.

8. Confidentiality.

a. Each Party agrees that as to all Confidential Information of the other Parties, as well as all Customer Account Information of the other Party's Customers, made available to, or independently obtained by, such Party in connection with this Agreement, it shall not, except to the limited extent necessary (i) to process Transactions in accordance with this Agreement; (ii) as required by applicable law or regulation, with appropriate written affirmations attesting to the nature of the Confidential Information if required by a Party; or (iii) where a Customer explicitly agrees in writing to such disclosure, reveal or divulge to any person or entity, any Confidential Information of a Party or Customer Account Information of the other Party's Customers. In the performance of this Agreement, each Party agrees to comply with all applicable federal and state statutes, rules regulations and orders regarding information handling and confidentiality requirements for Confidential Information and Customer Account Information and other data. The Parties agree that before an Affiliate Entity, contractor or subcontractor is permitted to perform work that entails its receipt of Confidential Information of a Party or Customer Account Information, the Affiliate Entity, contractor or subcontractor must have agreed in writing to comply with confidentiality provisions substantially similar to those set forth in this Section 8.

b. Each Party shall promptly notify the other Party upon discovering that there has been a Security Incident, as defined by 45 C.F.R. § 164.304, which has or may have compromised Confidential Information of a Party or Customer Account Information of another Party's Customer(s). For purposes of this Section 8(b), "promptly" is defined as within twenty-four (24) hours of discovering of the Security Incident.

c. Nothing in this Section 8 shall be construed as prohibiting the use of aggregated Transaction Information for a Party's traffic and facility management purposes and the reporting thereof, provided that the use of Transaction Information for such purposes does not identify an individual person or vehicle. Use of such Transaction Information for the purposes and subject to the restrictions specified in the preceding sentence will not be deemed to violate Section 3(b) of this Agreement.

9. Consultation. The Parties agree to consult with one another from time to time to discuss proposed amendments to the Hub Rules, operational issues pertaining to interoperability under this Agreement, discuss development and improvements to enhance interoperability, plan for expected changes in toll collection technology and practices that may affect interoperability, and similar issues.

10. Term. This Agreement shall be effective as of the Commencement Date and shall continue in effect until terminated pursuant to Section 11 below. For the avoidance of doubt, this Agreement shall be effective with respect to each Party on the applicable Effective Date.

11. Termination of Agreement. Without limiting the withdrawal or termination rights of an individual Party under Section 12, this Agreement may be terminated in its entirety as follows: (a) by unanimous written agreement of all Parties, or (b) at such time as there are either no Parties which are EZIOP Entities or no Parties which are CUSIOP Entities.

12. Withdrawal or Termination of a Party.

a. A Party may withdraw from and terminate its participation in this Agreement at any time with or without cause effective one hundred and twenty (120) days after the withdrawing Party provides written notice to the Administrative Contacts of its intent to withdraw and terminate. Such termination shall not release either the terminating Party or the remaining Parties from liability for events occurring or obligations arising before the date of the termination. The withdrawing Party shall remain liable for Transactions for which the withdrawing Party was obligated prior to the effective date of termination.

b. If a Party which is an EZIOP Entity ceases to be a party to the existing agreements among the EZIOP Entities for any reason such that it ceases to be an EZIOP Entity, then such Party will, at such time, and without further action, cease to be a Party to this Agreement and will be liable for costs as if it had withdrawn as a Party to this Agreement. Likewise, if a Party which is a CUSIOP Entity ceases to be a party to the existing agreements among the CUSIOP Entities for any reason such that it ceases to be a CUSIOP Entity, then such Party will, at such time, and without further action, cease to be a Party to this Agreement and will be liable for costs as if it had withdrawn as a Party to this Agreement.

c. For the avoidance of doubt, if a Party withdraws from this Agreement and/or its participation is terminated as set forth in this Agreement, this shall result in the withdrawal of and termination of participation by all of such Party's Affiliate Entities.

d. A Party's participation under this Agreement shall be terminated as follows: (i) upon 60 days' written notice to a Party, if such Party is in default under this Agreement and fails to cure such default to the reasonable satisfaction of the non-defaulting Parties within such 60-day period; (ii) upon the bankruptcy or insolvency of a Party or the commencement of proceedings of any kind, by or against a Party, under the federal Bankruptcy Code or under any other insolvency,

bankruptcy or reorganization act; or (iii) immediately, upon written notice, if, due to court order, legislative action, or the order of a governmental agency having jurisdiction, a Party is effectively prohibited from participating in this Agreement or agreements of this kind.

13. Joinder by New Parties. If, following the Commencement Date, an EZIOP Entity or CUSIOP Entity which is not a Party to this Agreement elects to become a Party (the "New Party"), the EZIOP Entities Administrative Contacts or CUSIOP Entities Administrative Contacts, as applicable, shall provide a copy of this Agreement to the New Party and secure from the New Party an executed joinder agreement in the form attached hereto as Exhibit C confirming the New Party's agreement to the terms of this Agreement (the "Joinder Agreement"). Upon execution of the Joinder Agreement, the New Party shall be a Party to this Agreement for all purposes. The Administrative Contacts that secured the executed Joinder Agreement shall promptly provide a copy of the same to the other Administrative Contacts. The applicable Administrative Contacts shall also provide notice of the same to the Custodian.

14. Trademark Use Requirements. Nothing in this Agreement shall be deemed to grant any license for use of a Party's trademarks. If a Party desires to utilize another Party's trademarked materials or property, it will be entitled to do so only if it complies with the other Party's trademark use requirements, including entering into any required trademark license agreement.

15. Effectiveness of Agreement. For the avoidance of doubt, this Agreement is not applicable to and does not govern Transactions incurred when a EZIOP Entity's Customer travels on another EZIOP Entity's Toll Facility or when a CUSIOP Entity's Customer travels on another CUSIOP Entity's Toll Facility; such Transactions shall be governed by existing agreements that are exclusively between the EZIOP Entities and exclusively between the CUSIOP Entities, respectively. Nothing in this Agreement shall supersede, limit, impair, or otherwise affect the rights and obligations of the CUSIOP Entities with respect to the other CUSIOP Entities as set forth in such existing agreements. If any provision of this Agreement conflicts with the provisions of any such existing agreements, the existing agreements shall control with respect to rights and obligations among and between the CUSIOP Entities. Likewise, nothing in this Agreement shall supersede, limit, impair, or otherwise affect the rights and obligations of the EZIOP Entities with respect to the other EZIOP Entities as set forth in such existing agreements. If any provision of this Agreement conflicts with the provisions of any such existing agreements, the existing agreements shall control with respect to rights and obligations among and between the EZIOP Entities.

16. Responsibility for Acts or Omissions. Each Party acknowledges and agrees that, to the extent permitted by applicable law, it shall be solely responsible for, and is expressly assuming all risk of loss relating to or connected with, its own acts or omissions and those of its Affiliate Entities in administering its own and its Affiliate Entities' toll Transactions.

17. Full Faith and Credit. Notwithstanding anything to the contrary contained in this Agreement, nothing herein shall impose an obligation on any Party that would be considered a debt (as that term is used in the applicable state Constitutions, statutes, case law, or regulations of the respective governmental Parties) requiring the full faith and credit of a Party's state or that exceeds that Party's authority to assume such obligation under applicable law or its current agreements with its bondholders.

18. Designation of Hub. All Parties which are parties to agreements pursuant to which they are participants in transactions through both EZIOP Hub and CUSIOP Hub (other than

as a result of this Agreement) shall, upon execution of this Agreement by any such Party, designate in writing whether its participation under this Agreement is as part of the EZIOP Hub or CUSIOP Hub.

19. Relationship of Parties. The relationship of the Parties created by this Agreement is that of independent contractors, and nothing in this Agreement shall be construed to create or imply the creation of a relationship between the Parties as principal and agent, employer and employee, partners and/or joint venturers. No Party shall have, or hold itself out as having, the power or authority to bind or create liability for any other Party by its negligent or intentional acts or omissions.

20. No Third Party Beneficiaries. This Agreement is not intended to benefit any third party, including, but not limited to, Affiliate Entities, nor shall any person or entity who is not now or in the future a party hereto be entitled to enforce any of the rights or obligations of a party under this Agreement.

21. Amendment of this Agreement. Except with respect to amendments to the HUB Rules, which are governed by the terms of Section 22 below, no amendment or modification to this Agreement shall be effective unless unanimously approved in writing by all Parties.

22. Amendment of Hub Rules. The Hub Rules may be amended only if approved (i) by the CUSIOP Entities in accordance with the terms of the CUSIOP Agreement, and (ii) by the EZIOP Entities in accordance with the terms of the EZIOP Agreement, and in each case notice of such approval shall be given to the Administrative Contacts.

23. Non-Assignment. Unless otherwise approved in writing by (i) the CUSIOP Entities as to any CUSIOP Entity in accordance with the terms of the CUSIOP Agreement, and (ii) by the EZIOP Entities as to any EZIOP Entity in accordance with the terms of the EZIOP Agreement, with notice of such approval to the Administrative Contacts, and the assigning Party and its assignee or resulting entity assumes the obligations of the Party in writing and executes a joinder to this Agreement, a Party may not assign this Agreement or any of its rights or obligations under this Agreement, whether by agreement, merger, sale of assets, sale of stock, or otherwise. Such approved assignment shall not release either the assigning Party or the assuming Party from liability for events occurring or obligations arising before the date of the assignment. Attempted or purported assignment without such approval and assumption and joinder shall be null and void and not recognized by the Parties.

24. Force Majeure. Any delay or failure of any Party to perform its obligations under this Agreement, other than the payment of money when due, shall be excused to the extent that it is caused by an event or occurrence beyond its reasonable control such as, by way of example and not by way of limitation, acts of God, actions by governmental authority, fires, floods, windstorms, explosions, riots, natural disasters, wars, terrorist attacks or threats thereof, or labor problems (each a "Force Majeure Event"); provided that the Party claiming force majeure promptly notifies the other Parties of the Force Majeure Event, the anticipated duration of the Force Majeure Event, and the steps being taken to remedy the failure.

25. Entire Agreement. This Agreement constitutes the entire agreement between the Parties with respect to its subject matter, and supersedes all prior and contemporaneous agreements, proposals, negotiations, representations or communications relating to the subject matter of this Agreement.

26. Governing Law. It is the desire and intention of the parties that the provisions of this Agreement shall be governed and enforced to the fullest extent permissible under the applicable laws, orders, and public policies of the respective jurisdictions of the Parties. Accordingly, if any provisions of this Agreement shall be adjudicated to be invalid or unenforceable without affecting the binding force of the Agreement, the remaining provisions shall remain in full force and effect after deleting such provision.

27. Interpretation and Dispute Resolution. No provision of this Agreement shall be construed against, or interpreted to the disadvantage of, any Party by any court, other governmental or judicial authority, mediator, or arbitrator by reason of such Party having, or being deemed to have, drafted, prepared, structured or dictated such provision. Each Party agrees to attempt in good faith to resolve issues arising out of this Agreement in a timely manner. If agreed by the Parties affected by a dispute, such Parties may agree to engage in non-binding mediation by a qualified neutral mediator acceptable to such Parties, in which event each Party participating in the mediation shall pay for its own costs and legal expenses in connection with the mediation.

28. Notices. Any notice or other communication hereunder will be in writing, will be sent via first-class mail, via registered or certified mail, or overnight courier and will be deemed given (a) if mailed, when deposited, postage prepaid, in the United States mail, and (b) if sent by overnight courier, one business day after delivery to such courier. Notices may also be sent by electronic mail as a secondary form of delivery, however, transmission by electronic mail does not constitute legal notice. Any notice or other communication will be addressed as set forth below, or to such other address as may be provided for receipt of notices, which shall be provided by like notice:

Administrative Contacts for EZIOP Entities:

P.J. Wilkins
Executive Director
The E-ZPass Group
200 Continental Drive, Ste 401
Newark, DE 19713
Email: pj.wilkins@e-zpassiag.com

and

Sara Wheeler
The E-ZPass Group & IAG Service Corp.
200 Continental Drive, Ste 401
Newark, DE 19713
Email: swheeler@e-zpassiag.com

and

The E-ZPass Group
Attn: Chair, Legal Committee
200 Continental Drive, Ste 401
Newark, DE 19713
Email: _____

Administrative Contacts for CUSIOP Entities:

Email: _____

and

Email: _____

29. Waiver. No delay or omission by a Party to exercise any right or power hereunder shall impair such right or power or be construed as a waiver thereof. A waiver by any of the Parties of any of the covenants, conditions, or agreements to be performed by the others or any breach thereof shall not be construed to be a waiver of any succeeding breach thereof or of any other covenant, condition, or agreement herein contained.

30. Counterparts. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same agreement. A signed copy of this Agreement delivered by email, facsimile, or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

[Signature Pages to Follow]

SIGNATURE PAGE FOR INTEROPERABILITY AGREEMENT
BETWEEN CUSIOP ENTITIES AND EZIOP ENTITIES
DATED AS OF _____, 2026

This Interoperability Agreement has been duly authorized and executed as of the date first above written and such Party represents that as of the date hereof it is a member in good standing of the ___ CUSIOP Entities or ___ EZIOP Entities (check one) as of the date hereof.

(Print Name of Party)

By: _____

Name of Authorized Officer: _____

Title of Authorized Officer: _____

Date: _____

AFFILIATE JOINDER REGARDING THE
INTEROPERABILITY AGREEMENT
BETWEEN CUSIOP ENTITIES AND EZIOP ENTITIES
DATED AS OF _____, 2026

The undersigned Affiliate hereby agrees to be bound by the terms of the Interoperability Agreement between the CUSIPO Entities and the EZIOP Entities dated as of _____, 2026, as it may be amended from time to time by the Parties thereto in accordance with its terms, applicable to an Affiliate as defined therein.

[Print Affiliate Name]

By: _____

Name of Authorized Officer: _____

Title of Authorized Officer: _____

Affiliate participation Approved and Accepted by Sponsoring Agency:

Sponsoring Agency Name: _____

By: _____

Name of Authorized Officer: _____

Title of Authorized Officer: _____

Date: _____

Exhibit A

Hub Rules

[see attached]

Modified NIOP Business Rules for EZIOP and CUSIOP Interoperability

Last Update: January 2026

*** PLEASE NOTE THAT IF THESE MODIFIED NIOP BUSINESS RULES FOR EZIOP AND CUSIOP INTEROPERABILITY (“MODIFIED TERMS”) ARE AMENDED PURSUANT TO THE TERMS OF SECTION 22 OF THE INTEROPERABILITY AGREEMENT TO WHICH THEY ARE ATTACHED, AN UPDATED VERSION OF THESE MODIFIED TERMS INCORPORATING SUCH AMENDMENTS WILL BE AVAILABLE AT [REDACTED] OR SUCH OTHER WEB ADDRESS AS THE PARTIES MAY HEREAFTER AGREE.*

Document History

Revision Date	Version	By	Revision Description
August – November 2025	1.0	B. Jewell	Created
January 2026	1.0	B. Jewell	Added detail to document how fees should be calculated for Credit Transactions. Note: Credit Transactions are not considered Credit Adjustments/Corrections, they are considered to be transactions.

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Introduction

Purpose

The purpose of this document is to record the business rules for National Interoperability (NIOP) that have been modified for the CUSIOP and EZIOP Hub's purpose. Modifications are in red text.

Modified NIOP Business Rules

General Business Rules

NIOP-GEN-9

Original Business Rule

NIOP-GEN-9. If a Home Hub receives a Valid Transaction that is a Tag Transaction or guaranteed Video Transaction and acknowledges the Transaction within 30 Days of the Transaction date, the Transaction is guaranteed to be paid by the Home Agency.

Note: The timing is based on the Transaction date where the Valid Transaction utilizes the active TVL or PVL at the time of the Transaction; if the timing is not met, the Transaction is not guaranteed to be paid by the Home Agency. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time \leq 30.0 days will be guaranteed.

Modified Business Rule

NIOP-GEN-9. If a Home Hub receives a Valid Transaction that is a Tag Transaction or guaranteed Video Transaction and acknowledges the Transaction within thirty (30) days of the Transaction date, the Transaction is guaranteed to be paid by the Home Agency. **For closed accounts, if the Home Hub receives a Valid Transaction and acknowledges the transaction within ten (10) days of the Transaction, the Transaction is guaranteed to be paid by the Home Agency.**

Note: The timing is based on the Transaction date where the Valid Transaction utilizes the active TVL or PVL at the time of the Transaction; if the timing is not met, the Transaction is not guaranteed to be paid by the Home Agency. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time \leq 30.0 days will be guaranteed.

Reason for Modification

The IAG guarantee is 10 days for closed accounts and 60 days otherwise. IAG 1.60.03 guarantees plate transactions based on the LIC_GUARANTEED field in the ICLP file.

Approvals

EZIOP Approved By: Hub Administrative Team (HAT)

CUSIOP Approved By:

August 19, 2025, Steering Committee

CTRMA	E-470	FBCTRA	HCTRA	KTA	NTTA	OTA
G. Mack	A. Vescera	L. Castaneda	A. Mirmira	B. Meisch	J. Dailey	A. Boulden †

*Voting Member | † Voting Member via Proxy

NIOP-GEN-11

Original Business Rule

NIOP-GEN-11. If the Home Hub receives a Valid Transaction more than thirty (30) days but less than or equal to ninety (90) days from the Transaction date, the Transaction will be accepted by the Home Agency subject to the availability of funds in the account. This is defined as Non-Guaranteed Toll Transactions.

Note: The timing is based on the Transaction date; if the timing is not met and exceeds ninety (90) days from the Transaction date, the Transaction may not be processed by the Home Agency and rejected as "Transaction too old". The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time > 30.0 days and <= 90.0 days will attempt to post and will pay if posted.

Modified Business Rule

NIOP-GEN-11. If the Home Hub receives a Valid Transaction more than thirty (30) days but less than or equal to sixty (60) days from the Transaction date, the Transaction will be accepted by the Home Agency subject to the availability of funds in the account. This is defined as Non-Guaranteed Toll Transactions.

Note: The timing is based on the Transaction date; if the timing is not met and exceeds sixty (60) days from the Transaction date, the Transaction may not be processed by the Home Agency and rejected as "Transaction too old". The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time > 30.0 days and <= 60.0 days will attempt to post and will pay if posted.

Reason for Modification:

IAG allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for E-ZPass.

CUSIOP allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for CUSIOP and SEIOP.

Approvals

EZIOP Approved By: Hub Administrative Team (HAT)

CUSIOP Approved By:

August 19, 2025, Steering Committee

CTRMA	E-470	FBCTRA	HCTRA	KTA	NTTA	OTA
G. Mack	A. Vescera	not present	A. Mirmira	B. Meisch	J. Dailey	A. Boulden †

*Voting Member | † Voting Member via Proxy

NIOP-GEN-12

Original Business Rule

NIOP-GEN-12. If an Agency receives an Invalid Transaction within ninety (90) days of the Transaction date, the Transaction may be accepted by the Home Agency subject to the availability of funds in the account, the status of the tag/license plate and the Home Agency’s Business Rules.

Note: The timing is based on the Transaction date; if the timing is not met, the Transaction may be rejected by the Home Agency.

The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time <=90.0 days will attempt to post and will pay if posted.

Modified Business Rule

NIOP-GEN-12. If an Agency receives an Invalid Transaction within **sixty (60)** days of the Transaction date, the Transaction may be accepted by the Home Agency subject to the availability of funds in the account, the status of the tag/license plate and the Home Agency’s Business Rules.

Note: The timing is based on the Transaction date; if the timing is not met, the Transaction may be rejected by the Home Agency.

The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time <=**60.0** days will attempt to post and will pay if posted.

Reason for Modification:

IAG allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for E-ZPass.

CUSIOP allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for CUSIOP and SEIOP.

Approvals

EZIOP Approved By: Hub Administrative Team (HAT)

CUSIOP Approved By:

August 19, 2025, Steering Committee

CTRMA	E-470	FBCTRA	HCTRA	KTA	NTTA	OTA
G. Mack	A. Vescera	L. Castaneda	A. Mirmira	B. Meisch	J. Dailey	A. Boulden †

*Voting Member | † Voting Member via Proxy

Data Interchange Business Rules

NIOP-DIR-23

Original Business Rule

NIOP-DIR-23. The Home Hub shall Acknowledge receipt of the Transaction Submission(s) from the Away Hub within sixty (60) minutes of receipt.

Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of the STRAN (or SCORR) (from Away Hub) minus Away Hub STRAN (or SCORR) Submission Date/Time <= 60.0 minutes.

Modified Business Rule

NIOP-DIR-23. The Home Hub shall Acknowledge receipt of the Transaction Submission(s) from the Away Hub within **one hundred and twenty (120)** minutes of receipt.

Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of the STRAN (or SCORR) (from Away Hub) minus Away Hub STRAN (or SCORR) Submission Date/Time <= **120.0** minutes.

Reason for Modification:

Recommendation made by EZIOP Team to reduce the number of duplicate submissions due to a longer acknowledgement process.

Approvals

EZIOP Approved By: Hub Administrative Team (HAT)

CUSIOP Approved By:

CUSIOP Technical Committee agreed with this approach. No vote required by the Steering Committee since the functionality is not modified.

Reviewed during the September 23, 2025, Steering Committee meeting.

NIOP-DIR-39

Original Business Rule

NIOP-DIR-39. The Home Agency may elect to not process Interoperable Transactions submitted to the Home Agency by the Away Agency more than ninety (90) days after the date and time of the Interoperable Transaction.

Note: The timing is based on the Transaction date. If the Transaction is sent to the Home Agency after the allotted time, the Home Agency may choose not to process the Transaction. If the Home Agency does not process the Transaction, the Away Agency may choose to invoice the Transaction. The calculation using the fields in the NIOP ICD is: Current date/time minus Transaction Exit Date/Time > 60.0 days.

Modified Business Rule

NIOP-DIR-39. The Home Agency may elect to not process Interoperable Transactions submitted to the Home Agency by the Away Agency more than **sixty (60)** days after the date and time of the Interoperable Transaction.

Note: The timing is based on the Transaction date. If the Transaction is sent to the Home Agency after the allotted time, the Home Agency may choose not to process the Transaction. If the Home Agency does not process the Transaction, the Away Agency may choose to invoice the Transaction. The calculation using the fields in the NIOP ICD is: Current date/time minus Transaction Exit Date/Time > 60.0 days.

Reason for Modification:

IAG allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for E-ZPass.

CUSIOP allows transactions to be submitted up to sixty (60) days, not ninety (90) days, for CUSIOP and SEIOP.

Approvals

EZIOP Approved By: Hub Administrative Team (HAT)

CUSIOP Approved By:

August 19, 2025, Steering Committee

CTRMA	E-470	FBCTRA	HCTRA	KTA	NTTA	OTA
G. Mack	A. Vescera	L. Castaneda	A. Mirmira	B. Meisch	J. Dailey	A. Boulden †

*Voting Member | † Voting Member via Proxy

Transaction Fee Business Rules

Credit Transaction Fee Business Rules

Original Business Rule

N/A

Modified Business Rule

NIOP-FEE-04. Transaction fees charged on accepted/posted Credit Transactions shall be calculated and charged to the Away Agency. Examples are below.

Example 1 - Away Agency pays (refunds) the Home Agency \$5.00 Toll Amount and the 15 cents fee. Total amount credited/paid to Home Agency is \$5.15.

Example 2 – The Per Transaction Flat Fee is \$0.02 instead of \$0.00. Away Agency pays the Home Agency \$5.00 Toll Amount and \$0.02 plus \$0.15 (\$0.17) in fees.

Credit Transaction (CT01) Example	Posted Toll Amount	Per Transaction Flat Fee	3% Per Transaction Variable Fee	Total Posted (Credited) Amount at Home Agency
1	\$-5.00	\$-0.00	\$-0.15	\$-5.15
2	\$-5.00	\$-0.02	\$-0.15	\$-5.17

Reason For Modification

Fee business rules as they relate to Credit Transactions have not been previously documented.


Approvals (TBD)

EZIOP Approved By:

CUSIOP Approved By:

CTRMA	E-470	FBCTRA	HCTRA	KTA	NTTA	OTA

*Voting Member | † Voting Member via Proxy



**Business Rules for
National Interoperability
Version 2.0
FINAL**

LAST UPDATE: MAY 2023

ABSTRACT

This document contains the business rules established to support National Interoperability.

These business rules may be revised from time to time as agreed to by the parties to National Interoperability. Interoperability between agencies and Regions has been developed for the sole purpose of coordinating the exchange of toll Transactions of multiple organizations that utilize, operate, and manage toll facilities. This document describes what is required of a participating Agency in order to enable and maintain sound business relationships.

DOCUMENT HISTORY

Revision Date	Version	Revision Description
September/October 2018	X.XX	<p>Incorporated revisions requested by NIOP Working Group.</p> <ol style="list-style-type: none"> 1. Changed 10 days to 30 days for the Transaction guaranteed period for hub to hub. Transactions submitted to the hub, within 30 days of the Transaction date, that had a valid tag in the active TVL are guaranteed. 2. E-ZPass Transaction file frequency is 1 time per day. SSIOP requires reconciliation within 24 hours. Change to 48 hours. 3. Use of the word “Local” (Local Hub/Local Agency). Add to Definitions, if needed. 4. Edits to business rules, as agreed and requested. 5. Clarify language to narrow Agency modifications to specific cases of adding locations. Increase to 30 days. 6. Conform document to NIOP: <ol style="list-style-type: none"> a. Edited Southern States specific business rules to conform to NIOP. b. Replaced Southern States specific drawing with NIOP map. c. Removed abbreviations and terms that are no longer used. 7. Added timing notes (when the clock starts) and what happens if conditions are not met, to relevant requirements. 8. Cleaned up SSIOP-DIR-42 and SSIOP-DIR-48. 9. Added SSIOP-GEN-15: An Agency can be a member of more than one region but NIOP Interoperable through only one Hub. Agencies are required to declare through which Hub they will be NIOP interoperable.
November 2018	1.00	<p>Edited during and as the result of the Technical Workgroup Session in Irvine, CA, November 6-7, 2018.</p> <p>11/26/18: Made revisions from M. Kolb review:</p> <ol style="list-style-type: none"> 1. Section 1.1: Changed “Northeast US (E-ZPass Group) Region” to “Northeast (E-ZPass) Region” 2. “File”, where appropriate, is changed to “Submission”. 3. Reconciliation and Settlement reporting is in UTC. 4. Added Data Sequence Number in reference to Submission Identifier for Data Submission Number for Financial reporting. <p>Added definition of UTC.</p>
February 2019	1.01	<p>Edited based on NIOP Policy meeting, January 28, 2019, as follows:</p> <p>Removed NIOP-MNT-04 through NIOP-MNT-06. Added NIOIP-MNT-04 through NIOP-MNT-07.</p>

Revision Date	Version	Revision Description
May 2019	1.01	Removed "WORKING VERSION", updated date and made FINAL.
September 2022	1.02	<p>Incorporated revisions requested by the NIOP Working Group sessions</p> <ol style="list-style-type: none"> 1. Added Interoperability for License Plates Only: <ol style="list-style-type: none"> a. Definitions, Acronyms, and Abbreviations b. Business Rule updates to incorporate verbiage: General Requirements, Account Requirements, and Data Interchange Requirements 2. Changed reconciliation frequency from weekly to monthly. 3. Settlement section was updated to be consistent with the Custodial Services Business Process document. Replaced 'invoice' with 'settlement'. 4. Removed 60-day reference for Away Agencies to pursue payment for transactions unable to be posted. 5. Removed NIOP-FEE-4.
September 2022	1.03	<p>Edited based on NIOP meeting, September 17, 2022, at IBTTA, as follows:</p> <p>NIOP-GEN-11: Extended to ninety (90) days. NIOP-DIR-43: Changed from guaranteed to not guarantee. Accepted additions for Interoperability using License Plates Only.</p>
January 2023	1.04	Edited NIOP-DIR-18.
March-April 2023	2.00	<ol style="list-style-type: none"> 1. Incorporated revisions requested by the NIOP Working Group: Removed report detail and added reference to Business Rules for Interoperability – Appendix A – Reports. 2. Updated US map with regions of national interoperability as of March 2023. 3. Table 1 Definitions, Acronyms, and Abbreviation updates: <ol style="list-style-type: none"> a. Revisions for license plate references to the following terms: Account, Bulk Plate Validation List, Interoperable Transaction, Plate Validation List, and Video Transaction b. Simplified terms: Bulk Tag Validation List, Differential Plate Validation List, Differential Tag Validation List, Effective Date, Fleet, Guaranteed Toll, Non-Guaranteed Toll, Registration Date, Rejected Transaction, Valid License Plate, and Valid Transaction c. New terms: Invalid License Plate, SCORR, SRECON, and STRAN d. Removed terms: Revenue Week 4. Added 1.3 Common Terms. 5. Updated Business Rules to include license plate references in relation to TVL and PVL.

Revision Date	Version	Revision Description
		<ul style="list-style-type: none"> 6. Updated Business Rules to include Tag and Video Transactions. 7. Extended timeframe to 90 days to be consistent with previous business rule updates. 8. Revised to reflect Home Agency responsibility for communication and website updates. 9. NIOP-DIR-18: Revised the business rule for steps to posting Video Transactions. 10. NIOP-DIR-48: New business rule to support duplicate resubmission of transactions. 11. NIOP-DIR-49: New business rule to state validity of license plate in the TVL. 12. NIOP-MNT-3-5: Updated to follow format of other business rules in this section. 13. NIOP-LP-5: Moved note in business rule to ICD Processing Requirements.
May 2023	2.0	Removed "DRAFT FOR REVIEW" and made FINAL with approval from the National Interoperability group at IBTTA Tech Summit in Indianapolis, IN.

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Introduction

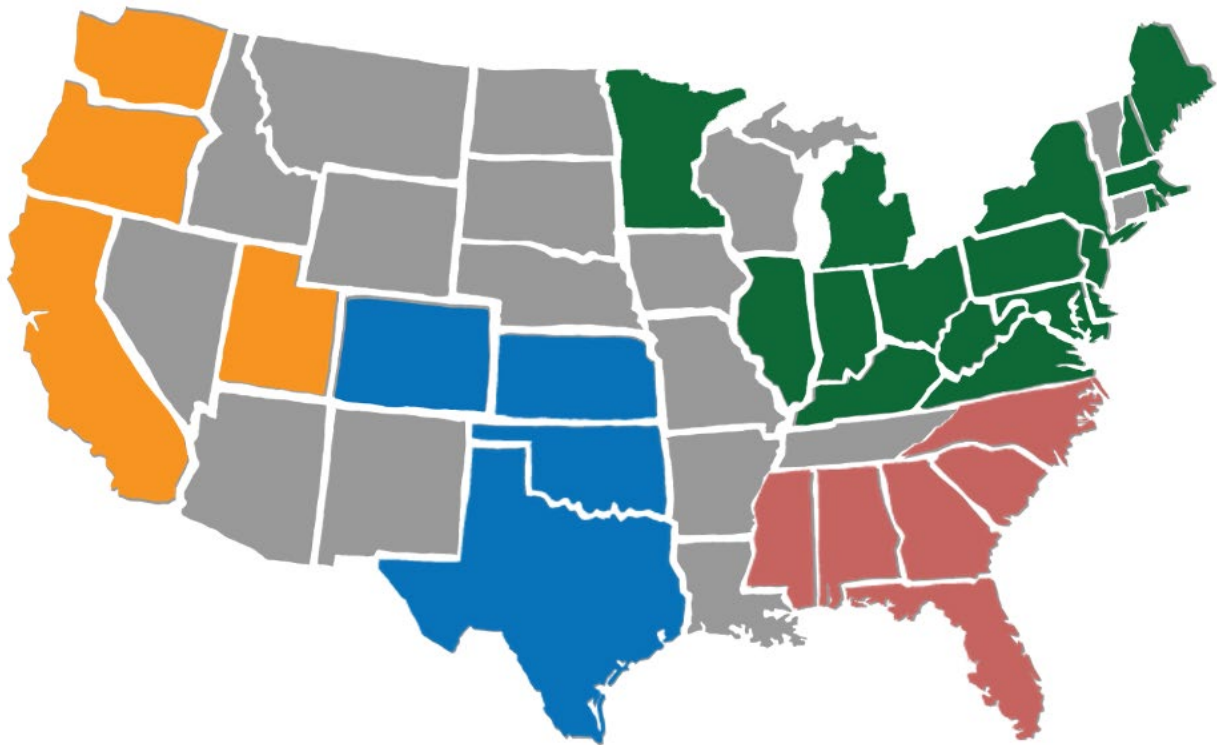
Purpose

The purpose of this document is to describe and record all business rules for National Interoperability (NIOP).

Each Agency or Agency's Local Hub has the responsibility to implement the business rules as stated herein.

The figure below illustrates the Regions of National Interoperability as of March 2023.

Figure 1: National Interoperability



Gold: Western US Region (WRIOP)
Green: Northeast (E-ZPass) Region (EZIOP)
Blue: Central US Region (CUSIOP)
Red: Southeast US Region (SEIOP)

Please refer to NIOP ICD Appendix B for specific Agency to Hub relationships.

Definitions, Acronyms, Abbreviations

The intent of this section is to list terms and acronyms used in this document, for easy reference.

Table 1: Definitions, Acronyms, and Abbreviations

Term	Description
Accepted Transaction	Transactions that are accepted by the Home Agency. A Transaction must be accepted by the Home Agency if the Transaction is a Guaranteed Toll. Non-Guaranteed Tolls are accepted based on the availability of funds on the customer's account.
Account	An account established by a Customer for which a tag has been issued or a License plate is registered for the payment of tolls.
Acknowledgement	Acknowledgements are based on receiving and validating data submissions, not processing the contents of the submission. Please refer to the NIOP ICD for additional requirements.
Agency	An Agency, company, or other entity that participates in Interoperability.
Agreement for Nationwide Interoperability	The Agreement for toll collection Interoperability that allows for exchange and settlement of tolling Transactions nationwide.
Away Agency	An Interoperable Agency that is not the Customer's Home Agency.
Away Hub	An Interoperable Hub that is the Away Agency's Local Hub.
Bulk Plate Validation List	A Plate Validation List containing all license plates, not associated with a Tag that are considered interoperable by a Home Agency and provided to Agencies via the Local Hub.
Bulk Tag Validation List	A Tag Validation list containing all tags with a positive/good and zero or negative balance produced by the Home Agency and provided to Agencies via the Local Hub.
CSV	The CSV ("Comma Separated Values") file format is often used to exchange data between applications.
Custodian	An entity appointed to act on the behalf of a NIOP Hub to send and receive funds for financial settlements between NIOP Hubs and Local Agencies.
Customer	A party that establishes an Account with a Home Agency.
Differential Plate Validation List	A Plate Validation List that contains license plates, not associated with a Tag that have been added or changed Registration Date or Effective Date since the last Bulk Plate Validation List.
Differential Tag Validation List	A Tag Validation list that contains the tags and/or license plates that have been added or changed status since the last Bulk Tag Validation List.
Disputed Transaction	A Transaction which is disputed by the Customer or the Home Agency.
Duplicate Transaction	Duplicate Transaction processing is based on the Home Agency business rules. For example, Multiple Transactions generated by the same Vehicle (tag or license plate) from the same general tolling location (e.g. same plaza and same or adjacent lane), within a short period of time would indicate an erroneous recording of a single Transaction.
Effective Dates	The date/time range that a license plate is considered valid for tolling.
Fleet	Vehicle owned by an entity and registered by others against their own

Term	Description
	personal account for tolling, for example, rental Vehicles.
Guaranteed Toll	The Transaction is guaranteed to be paid by the Home Agency.
Home Agency	An Interoperable Agency which owns the Customer Account and maintains the information related to the Vehicle(s), license plate(s) and Tag(s) to which interoperable toll Transactions are posted.
Home Hub	An Interoperable Hub that is the Home Agency's Local Hub.
Interface Control Document (ICD)	Interface Control Document (ICD) describes the data interface and the specific fields, files, naming conventions, etc., with which each Interoperable Hub must comply when transmitting Interoperable data.
Interoperable Transaction	Transaction created at an Away Agency by a Vehicle identifiable via the TVL/PVL.
Invalid License Plate (see Valid License Plate)	License plate that is not in any Bulk TVL, Bulk PVL or Differential PVL, is not effective in the current PVL or TVL, or is associated with a Tag with an Invalid Status in the Differential TVL.
Invalid Tag/Transponder (see Valid Tag/Transponder)	Tag/Transponder that is not on any Home Agency Bulk TVL or has a reported status of invalid or zero/negative balance (As determined by the Home Agency). There is no revenue guarantee for toll Transactions utilizing an Invalid Transponder.
Invalid Transaction	The passage of a Vehicle not associated with a Valid Tag/Transponder or Valid License Plate through an active electronic toll collection lane.
Local Agency	The term "Local Agency" is used in the context of a "Local Agency to their Hub". A Hub's Local Agency is an Agency that directly interfaces with that specific Hub for the purposes of interoperability.
Local Hub	The term, "Local Hub" is used in the context of an Agency's Local Hub, where the Agency interfaces with the Local Hub for interoperability with Other Hubs and Agencies.
National Interoperability Business Rules (NIBR)	A document that contains the business rules established to support National Interoperability (Business Rules for National Interoperability). This document describes what is required of a participating Agency in order to enable and maintain sound business relationships with other Agencies who support National Interoperability. Note: Previously defined as Interoperability Business Rules (IBR).
NIOP	The acronym for National Interoperability. The Business Rules defined in this document are for the purpose of National Interoperability.
Non-Guaranteed Toll	Any transaction that is not a Guaranteed Transaction may be accepted (payable) by the Home Agency subject to the availability of funds in the account.
Other Hub	The term, "Other Hub" is used in the context of another hub who services another Region. A Local Agency interfaces with a Local Hub who then interfaces with Other Hubs for interoperability with their Local Agencies.
Plate Validation List (PVL)	A list of license plates not associated with Tags.
Post (ed) (ing)	Matching a Transaction to an Account and crediting or debiting the corresponding amount to/from the Account.
Reconciliation / Reconcile	The process and/or reporting used by a NIOP Hub to determine or demonstrate that the Transactions sent match the dispositions received,

Term	Description
	and to arrive at final settlement.
Reconciliation Date	Date/Time created by the Away Hub based on the Away Agency's Acknowledgement of the Reconciliation Data submission. Note, this date/time will be used for reconciliation reporting. If the date/time falls within the current reconciliation period, all reconciliation records in the associated Reconciliation Data submission with a Posting Disposition value of "P" (Posted/Accepted) shall be paid from the Home Agency to the Away Agency.
Regions	The group of agencies organized into regional hubs to facilitate NIOP.
Registration Date	The date and time a license plate was added to a toll Account.
Rejected Transaction	Transactions that are rejected by the Home Agency.
SCORR	Adjustment/Correction Data as defined in the NIOP ICD.
Settle (ment)	The transfer of funds between Interoperable Agencies via the Hub for Interoperable Transactions, fees, and other agreed amounts.
SRECON	Reconciliation Data as defined in the NIOP ICD.
STRAN	Transaction Data as defined in the NIOP ICD.
Tag/Transponder	A radio frequency identification device (RFID) that is used to communicate with roadside equipment to identify the unique Tag for which an Agency can pursue the collection of tolls.
Tag Transaction	A Transaction transmitted to the Home Agency from the Away Agency for a Vehicle which is equipped with a Valid Tag.
Tag Validation List (TVL)	A list of interoperable Tags and associated license plates issued by each Home Agency, as specified in the ICD. There may be multiple license plates associated with a single tag.
Transaction	An electronic record of a Vehicle's use of an Agency's tolled location as defined by the ICD.
Transaction Fee	Fee(s) charged to Transactions (Transactions and/or Transaction adjustment) accepted by the Home Agency.
UTC	Coordinated Universal Time.
Valid License Plate	A license plate associated with an account that is valid and in good standing. Note: Not all NIOP facilities necessarily accept Vehicles with only a Valid License plate.
Valid Tag/Transponder (see Invalid Tag/Transponder)	Tag provided in a TVL where the Tag Status is Valid.
Valid Transaction	The passage of a Vehicle associated with a Valid Tag/Transponder or Valid License Plate through a toll facility.
Vehicle	A motorized Vehicle or trailer uniquely identified by license plate.
Video Transaction	An image-based Transaction that is created at an Away Agency and posted via the license plate identified in the TVL or PVL.

1.3 Common Terms:

1. The verb “shall” is used for **standards**, which are statements of required, mandatory, or specifically prohibited practice.
2. The verb “should” is used for **guidance**, which are statements of recommended, but not mandatory, practice in typical situations, with deviations allowed if judged to be appropriate.
3. The verb “may” is used for **practices** that are permissive but carry no requirement or recommendation.

Business Rules

This document defines business rules for National Interoperability (NIOP). These rules and all referenced documents are the business rules with which the parties to the Interoperability Agreements must comply. The data interface and the specifics of fields, files, naming conventions, etc. are specified in the ICD, which are referenced in this document.

Tolling Business Rules

General Requirements

- NIOP-GEN-1.** Interoperable Agencies shall jointly establish a system that enables a customer to use one Account to pay tolls at all Nationally Interoperable Agencies without the need to take any further action regarding that Account or the associated Tags or license plates.
- NIOP-GEN-2.** The Home Agency will make a reasonable attempt to maintain up to date customer information.
- NIOP-GEN-3.** Electronic toll collection equipment used by interoperable Agencies to read and/or write back to tags shall meet the requirements of SeGo, 6C or TDM Interop protocols (or other approved protocol) and be certified for use. For an Agency to be interoperable, it shall be required to read either one or more accepted Interop protocols and/or accept Valid License Plates.
- NIOP-GEN-4.** NIOP Hubs, exchanging data, shall comply with all documented interoperability requirements agreed upon, including, but not limited to, these NIOP Business Rules and the ICD.
- NIOP-GEN-5.** Each Agency shall provide time synchronization to a National Institute of Standards and Technology time source and shall ensure that all components of its system are time-synchronized.
- NIOP-GEN-6.** Home Agency’s Customer Use Agreements shall be written or revised, as necessary, to comply with and provide clarity regarding the NIOP Business Rules.
- NIOP-GEN-7.** There may be multiple Home Agencies for NIOP Tags in operation.

Note: There may be customers who have their Tag registered with multiple Home Agencies.

NIOP-GEN-8. Any Vehicle eligible for NIOP tolling must be associated to a Valid Tag or a Valid License Plate.

Note: Customer Use Agreements should include language to advise customers who depend on Nationwide tolling via license plate technology, that license plate technology may not be available at all NIOP toll facilities.

NIOP-GEN-9. If a Home Hub receives a Valid Transaction that is a Tag Transaction or guaranteed Video Transaction and acknowledges the Transaction within 30 Days of the Transaction date, the Transaction is guaranteed to be paid by the Home Agency.

Note: The timing is based on the Transaction date where the Valid Transaction utilizes the active TVL or PVL at the time of the Transaction; if the timing is not met, the Transaction is not guaranteed to be paid by the Home Agency. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time \leq 30.0 days will be guaranteed.

NIOP-GEN-10. The acknowledgement by the Home Agency is based on receiving the submission and validating the submission, not by processing the Transactions or data within the submission.

NIOP-GEN-11. If the Home Hub receives a Valid Transaction more than thirty (30) days but less than or equal to ninety (90) days from the Transaction date, the Transaction will be accepted by the Home Agency subject to the availability of funds in the account. This is defined as Non-Guaranteed Toll Transactions.

Note: The timing is based on the Transaction date; if the timing is not met and exceeds ninety (90) days from the Transaction date, the Transaction may not be processed by the Home Agency and rejected as "Transaction too old". The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time $>$ 30.0 days and \leq 90.0 days will attempt to post and will pay if posted.

NIOP-GEN-12. If an Agency receives an Invalid Transaction within ninety (90) days of the Transaction date, the Transaction may be accepted by the Home Agency subject to the availability of funds in the account, the status of the tag/license plate and the Home Agency's Business Rules.

Note: The timing is based on the Transaction date; if the timing is not met, the Transaction may be rejected by the Home Agency. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of STRAN Submission (from Away Hub) minus STRAN Transaction Exit Date/Time \leq 90.0 days will attempt to post and will pay if posted.

NIOP-GEN-13. The Home Agency should communicate to their account holders with invalid transponders/plates (per the definition of Valid Transponder/Valid License Plate) that the customer is not interoperable.

- NIOP-GEN-14.** Each Home Agency should maintain access from their website for all interoperable tolling entities by means of a link to the interoperable tolling entities' website.
- NIOP-GEN-15.** An Agency can be a member of more than one Region but nationally interoperable through only one Hub. Agencies are required to declare through which Hub they will be NIOP interoperable. Please refer to NIOP ICD Appendix B.

Marketing

- NIOP-MKT-1.** Agencies will strive to provide at least thirty (30) days advance notification of any NIOP marketing activities related to interoperability to their Local Hub, who will strive to disseminate the information to the Other Hubs. The Other Hubs will strive, in turn, to disseminate the information to their Local Agencies.
- Note: Advance notification is a process managed by the Agency engaging in the marketing activities.*

Account Requirements

- NIOP-ACC-1.** Each Home Agency's Customer Use Agreement shall provide that the use of a Vehicle and/or tag at an Away Agency shall constitute the Customer's acceptance of the interoperability terms.
- NIOP-ACC-2.** The Home Agency's Customer Use Agreement shall also provide that an Account may be charged when a Vehicle's license plate is captured as an image while traveling on an Interoperable Agency's facility and that license plate can be associated with the Customer's Home Agency Account.
- NIOP-ACC-3.** Customers shall be able to use a Valid Tag or license plate associated with a Valid Tag to make toll payments at all Interoperable Agency's facilities. Customers shall be able to use a Valid License Plate to make toll payments at Interoperable Agency's facilities that support video tolling.
- NIOP-ACC-4.** An Account may be associated with multiple Tags; one tag may be associated with multiple Vehicles on an Account. Home Agencies should include license plates in the PVL if the Vehicles are not intended to be equipped with a Valid Transponder.

Reconciliation and Settlement Requirements

Reconciliation

Hub Reconciliation Requirements

- NIOP-REC-1.** NIOP Interoperable Hubs shall reconcile Transactions in a manner and frequency as agreed upon between NIOP Hubs for Transactions relevant to the Hubs. Such frequency shall be at least monthly.
Note: This is a process managed by the Hub engaging in the reconciliation activities.
- NIOP-REC-2.** NIOP Interoperable Hubs shall settle in a manner and frequency as agreed upon between the NIOP Hubs. Such frequency shall be at least monthly.
Note: This is a process managed by the Hub engaging in the settlement activities.
- NIOP-REC-3.** Fund transfers between NIOP Hubs shall be validated and reconciled by both the submitting and receiving NIOP Hub's appointed Custodians.
- NIOP-REC-4.** Each NIOP Hub will prepare a reconciliation and settlement reports, in summary and detail, indicating the amount it believes it is due for all Interoperable Transactions, for the reconciliation period, from each Hub. Please refer to Business Rules for Interoperability – Appendix A – Reports.
- NIOP-REC-5.** REMOVED. Please refer to Business Rules for Interoperability – Appendix A – Reports.
- NIOP-REC-6.** The NIOP Hub reports shall be generated and distributed on-demand.

Hub and Local Agency Reconciliation Requirements

- NIOP-REC-7.** Each NIOP Hub shall reconcile Transactions, based on the Reconciliation Date, with their Agencies in a manner and frequency as agreed upon between the applicable NIOP Hub and its Agencies. Such frequency shall be at least monthly.
Note: This process is managed by the Agency or Hub engaging in reconciliation activities.
- NIOP-REC-8.** Each NIOP Hub shall settle with their Agencies in a manner and frequency as agreed upon between the applicable NIOP Hub and its Agencies. Such frequency shall be at least monthly.
Note: This is a process managed by the Agency engaging in the settlement activities.
- NIOP-REC-9.** Fund transfers between NIOP Hub Custodians and their Agencies shall be validated by both the submitting and receiving NIOP Hub Custodians and Agency, except as prohibited by an Agency's State statute.
- NIOP-REC-10.** Each Agency is responsible for reconciling against its own reporting system all Interoperable Transactions, based upon the reconciliation codes as specified in the ICD.
- NIOP-REC-11.** The Away Agency will provide the necessary detail to support resolving discrepancies during reconciliation.

NIOP-REC-12. The Home Agency will provide the necessary detail to support resolving discrepancies during reconciliation.

NIOP-REC-13. Each Agency is responsible for reconciling the other Agency's Transactions to its own reports prior to settlement with their Local Hub.

Reconciliation Issue Resolution

NIOP-REC-14. If discrepancies exist, the Agencies and/or Custodians will work together to review and verify their differences.

NIOP-REC-15. During the review of the reconciliation and settlement reports, the Away Agency may request that the Home Agency provide available documentation supporting the Interoperable Transactions reported as valid or rejected. The documentation should include:

(a) Selection by Away location, Transaction Period based on Transaction Date, Transaction Accepted Date, Transaction Submission Date, Reconciliation Date, Submission Identifier (Data Sequence Number) with grouping options.

(a) Transaction's Tag number and/or license plate information

(b) Transaction's date and time

(c) Transaction's location

(d) Transaction's disposition/status

(e) Toll Amount

Documentation will be provided if permissible by law.

NIOP-REC-16. If necessary, upon acceptance of a dispute, the Away Agency on which the Interoperable Transactions occurred will initiate the adjustment to be sent to the Home Agency, through the NIOP Hub, to update, correct or replace missing or incorrect Transaction data.

NIOP-REC-17. Transaction adjustments shall not exceed the original toll amount.

NIOP-REC-18. Adjustments will be reported, reconciled and settled in the same manner as other Interoperable Transactions.

Disputed Tolls

NIOP-REC-19. In order to enable proper researching of customer complaints, each Agency will maintain records related to toll Transactions for a minimum period of one hundred-eighty (180) days from the Transaction date.

Note: Record retention is based on Transaction date. If Transaction history is not maintained, Agencies will be unable to research customer complaints.

- NIOP-REC-20.** The Home Agency shall notify the Away Agency of Customer complaints regarding alleged erroneous charges or Duplicate Transactions on the Away Agency's facilities.
- NIOP-REC-21.** The Away Agency and the Home Agency shall work cooperatively when Interoperable Transactions at an Away Agency are disputed. Research may be undertaken to determine the validity of the dispute.
- NIOP-REC-22.** The Home Agency will prepare a Disputed Toll Settlement Report/Form which will detail the amounts and reasons for each disputed toll to the Away Agency. The responsibility of assessing reasonableness and preventing abuse lies with the Home Agency.
- NIOP-REC-23.** The acceptability of the dispute lies with the Away Agency. The Away Agency notifies the Home Agency of the decision to accept or reject the dispute.
- NIOP-REC-24.** The Away Agency must accept or reject the dispute within thirty (30) days of notification from the Home Agency.
Note: The timing starts the day of the dispute notification. In the case where the dispute is filed using the dispute application at a Hub, the filing date is the start of the dispute resolution period, extending 30 days from the filing date. After the filing date, the dispute resolution expires at the Hub. Adjustments may continue to be made as long as the adjustment fits within the adjustment business rules.
- NIOP-REC-25.** Disputes which result in an adjustment will become part of the Reconciliation and Settlement. Rejected disputes will not become part of the Reconciliation and Settlement.
- NIOP-REC-26.** In a situation when a Customer is not satisfied with an Away Agency's resolution of an Interoperable Transaction dispute, the Customer's Home Agency may elect to credit the Interoperable Transaction to the Customer's Account and shall bear the cost of the credit and toll amount associated with the disputed Transaction.
- NIOP-REC-27.** A single Transaction may only be disputed once by the Home Agency.

Transaction Fees

- NIOP-REC-28.** The Home NIOP Hub will prepare a report indicating the amount of Transaction fees (if applicable) due from the Away NIOP Hub based upon the accepted reconciled Transactions. The report should include:
- (a) The time period being reconciled and settled
 - (b) The amount due to the Agency detailed as follows:
 - i. Transaction submission identifier
 - ii. Reconciliation Date
 - iii. Count and fee amount for all Interoperable Transactions for which a valid Transaction code has been received and settlement is expected

Settlement

The custodial services business process document details the business process for services performed by the Custodian for each Interoperability Hub including settlement transfer of funds between Interoperable Agencies via Interoperability Hubs for Transactions, fees, and other agreed amounts.

- NIOP-REC-29.** Settlements, between NIOP Hubs, will be released by Hub Custodians after the agencies at each Hub have reconciled and agreed to the amounts required. The amounts required will include guaranteed, accepted/posted non-guaranteed Transactions, adjustments, and any applicable Transaction fees. Please refer to Business Rules for Interoperability – Appendix A – Reports.
- NIOP-REC-30.** NIOP settlements between the NIOP Hubs will be in gross amounts (Transaction amounts and fees), unless agreed otherwise by both parties.
- NIOP-REC-31.** The settlement will include a settlement statement recording all reconciled and agreed amounts for the reconciled period.
- NIOP-REC-32.** Settlement statements will be distributed electronically (i.e., electronic drop box, email) to each NIOP Hub’s Custodian and Local Agency, as necessary.
- NIOP-REC-33.** Payments for settlements shall be made electronically.

Data Interchange Requirements

General

- NIOP-DIR-1.** Each NIOP Hub shall comply with the ICD.

Tag Validation Lists

- NIOP-DIR-2.** The Home Agency shall document the status of its interoperable Tags and associated license plates in the Tag Validation List. The Tag Validation List shall denote the status of tags and associated license plate(s) for each interoperable Tag based on the requirements and status defined in the ICD.
- NIOP-DIR-3.** Tag Validation Lists shall not contain fictitious Tags.
- NIOP-DIR-4.** The NIOP Hubs shall electronically exchange Bulk Tag Validation Lists on a regular schedule, at least once per week. The Bulk Tag Validation List will have “now” valid and zero/negative balance tags. It is up to the Home Agency to determine whether the zero/negative balance tags are included in the Bulk TVL.
Note: If a Home Agency does not provide their TVL in sufficient time to be included in the

Home Hub's Bulk TVL, the Home Hub should derive the Bulk TVL for the Home Agency and include the derived TVL in the Home Hub's Bulk TVL. Refer to NIOP ICD Appendix D.

- NIOP-DIR-5.** When changes occur to the Tag Validation List, Home Agencies shall create a Differential Tag Validation List and distribute via the NIOP Hubs. The Differential TVL contains new valid and "now" invalid (invalid, zero/negative balance) tags as compared to the last Bulk TVL. The Differential TVLs are exchanged at least daily. It is up to the Home Agency as to whether the zero/negative balance tags are included in the Differential TVL.
Note: If a Home Agency does not provide their TVL in sufficient time to be included in the Home Hub's Differential TVL, the Home Hub should include the most recent Home Agency Differential TVL received after the most recently active Bulk TVL and include it in the Home Hub's Differential TVL.
- NIOP-DIR-6.** Each Tag Validation List (Bulk or Differential) shall be acknowledged (ACK) by the receiving Hub within sixty (60) minutes of receipt.
Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time (first ACK) of the TVL (from Home Hub) minus TVL Submission Date/Time <= 60.0 minutes.
- NIOP-DIR-7.** Each Hub shall maintain a historical record of each Tag Validation List sent to and received from the other Interoperable Agencies and Hubs for a minimum period of one hundred-eighty (180) days.
Note: The timing starts when the TVL is activated (2nd TVL ACK date and time). If the history is not maintained, it may be difficult to research customer complaints. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time (second ACK) of the TVL (from Home Hub) minus TVL Submission Date/Time <= 180.0 days.
- NIOP-DIR-8.** Each Hub shall provide a utility to be used by authorized users to pull a tag's history in the event of a dispute or other inquiry.
- NIOP-DIR-9.** The Away Hub and each Away Agency is responsible to ensure each TVL is made active as soon as possible after the first acknowledgement.
- NIOP-DIR-10.** The Local Agency's TVL and Transaction Acknowledgement (ACK) date and time is recorded by the NIOP Hub who made the TVL or Transaction Submission available.
- NIOP-DIR-11.** There shall be two Acknowledgements for a TVL from the Away Hub, one to confirm the TVL has been received, the second to establish and record the TVL activation date and time.
- NIOP-DIR-12.** The Away Hub shall establish the TVL activation date and time based on the 2nd Acknowledgement received for the TVL.

- NIOP-DIR-13.** The Home Hub shall use the second TVL ACK to establish the activation date/time of its TVL at another Hub and the tag status at the time of the Transaction.

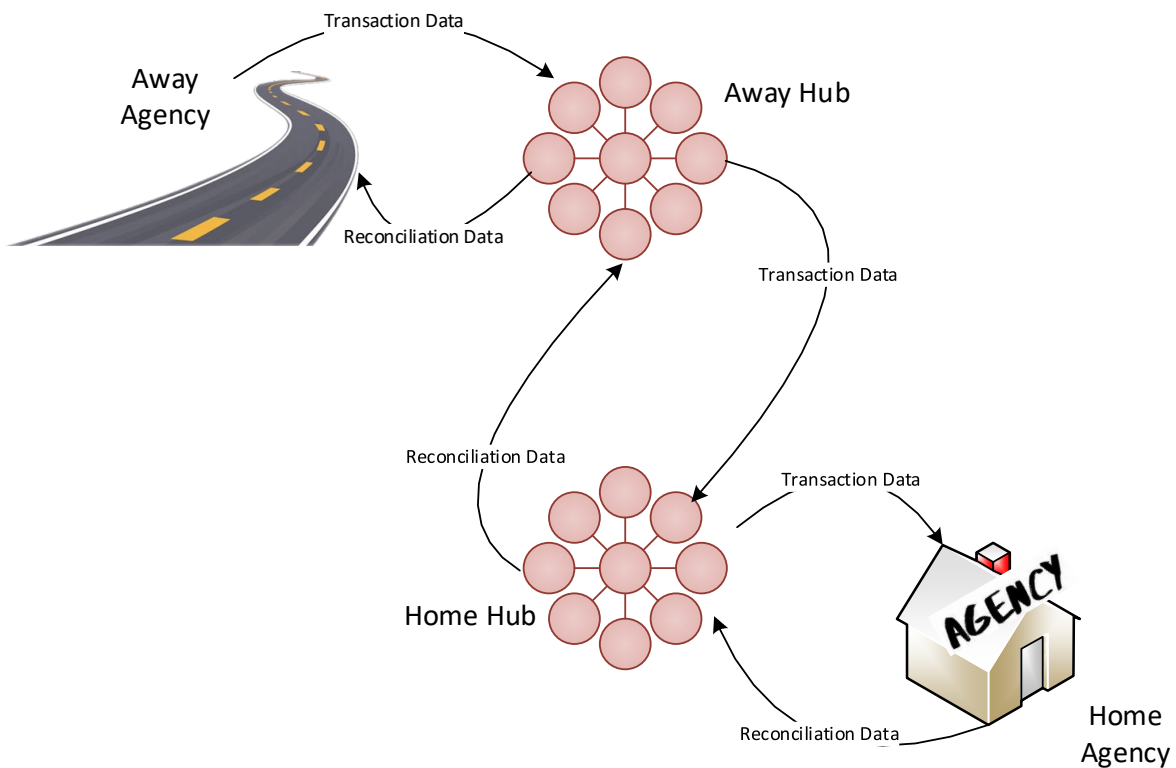
- NIOP-DIR-14.** It is the responsibility of the Away Agency to ensure bulk files and differential files are applied in order based on Submission Date/Time such that a stale bulk or differential submission would never overwrite a more recent bulk or differential submission.

- NIOP-DIR-15.** In the event the Home NIOP Hub receives a status for the same tag from two different Home Agencies, the NIOP Hub shall not filter the tags when creating and distributing the TVLs.

Transactions

The following diagram shows the typical Transaction data flow.

Figure 8: Typical Hub to Hub Transaction Data Flow Diagram



Note: The Transaction and reconciliation data is based on the requirements in the ICD.

- NIOP-DIR-16.** Upon receipt of Transaction records, the Home Agency will attempt to post Transactions to the accounts associated with the transaction record details. It is up to the Home Agency as to whether they will process Transactions with an invalid, or

zero/negative tag status. Settlement of a Guaranteed Transaction shall not be dependent on the Transaction's successful posting; i.e., the Home Agency's obligation to pay the Away Agency is not contingent upon the Home Agency's ability to post the Transactions to the customer's account.

NIOP-DIR-17. The class and toll rate as determined by the Away Agency will be honored by the Home Agency for settlement purposes whenever the Transactions is accepted by the Home Agency.

NIOP-DIR-18. A Video Transaction could potentially match by license plate data to more than one account based on local data, TVL data and/or PVL data. To help ensure that the correct account is selected in keeping with possible customer intentions, a combination of License Plate Effective dates and Registration Dates should be used to determine the most recent eligible record. The steps should be as follows:

- A. Find all non-fleet TVL/PVL license plate data (including data from Away Agency's local database) whose Effective date range includes the Video Transaction date/time.
- B. From the result set, find the latest Registration Date and utilize that data for posting/transmission.
- C. If no record is found in A and B, find all Fleet TVL/PVL license plate data (including data from Away Agency's local database) whose Effective date range includes the Video Transaction date/time.
- D. From the result set, find the latest Registration Date and utilize that data for posting/transmission.
- E. Local Transaction processing for pursuing payment.

NIOP-DIR-19. The Away Agency shall send at least one Transaction Submission to their Local Hub each day (unless no interoperable Transactions were generated since the last sending).

NIOP-DIR-20. The Away Agency may send Transaction Data to their Local hub in one submission per Home Agency or one submission with all Transactions.

NIOP-DIR-21. The Away Hub shall determine the Home Agency for those Transactions that are grouped together (where the Home Agency has not been determined by the Away Agency) before sending the Transactions to another Home Hub or Home Agency. Submissions that are received where a Home Agency is defined shall be submitted to the Home Hub associated with that Agency or to the Home Agency, intact, without determining the Home Agency.

NIOP-DIR-22. Upon receipt of the Transaction Submission by a NIOP Hub from a Local Agency, the NIOP Hub shall send the Transaction Submission(s) to the Other Hub and/or Local Agencies after sending the acknowledgment to the Local Agency.

NIOP-DIR-23. The Home Hub shall Acknowledge receipt of the Transaction Submission(s) from the Away Hub within sixty (60) minutes of receipt.
Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be

notified. The calculation using the fields in the NIOP ICD is: Home Hub Acknowledgement Date/Time of the STRAN (or SCORR) (from Away Hub) minus Away Hub STRAN (or SCORR) Submission Date/Time <= 60.0 minutes.

- NIOP-DIR-24.** The Home Hub shall process the Away Agency's Transaction Submission, from the Away Hub, and provide the associated Reconciliation Submission, within forty-eight (48) hours of the Transaction Submission.
Note: The timing is based on the date and time in the submission header from the Away Hub. If the Reconciliation Submission is not received by the Away Hub, the Away Hub should generate Transaction reconciliation records with an "S" Posting Disposition for the Transactions that were not responded to. The calculation using the fields in the NIOP ICD is: Home Hub SRECON Transmission Date/Time minus Away Hub STRAN (or SCORR) Submission Date/Time <= 48.0 hours.
- NIOP-DIR-25.** Transaction submission(s) Acknowledgements shall be recorded by the Home Hub after the Home Agency Acknowledges the Transaction submission.
- NIOP-DIR-26.** There shall be two Acknowledgements for a Reconciliation Submission from the Home Hub, one to confirm the Reconciliation Submission has been received, the second to record the Reconciliation Date.
- NIOP-DIR-27.** The Away Hub shall determine the Reconciliation Date for a Reconciliation Submission based on the Away Agency's Acknowledgement Date or Date determined by the Away Hub.
- NIOP-DIR-28.** The Home Agencies shall use the second Reconciliation Submission ACK to determine the Reconciliation Date for the original Transaction submission.
- NIOP-DIR-29.** When the Home Agency posts an Interoperable Transaction to a customer's account, the following Transaction information shall be maintained: Transaction date, time, location, Tag ID and/or license plate, Vehicle classification, if available, and toll amount.
- NIOP-DIR-30.** If, by fault of the Away Agency, Transaction processing and posting has not or could not be performed via NIOP processes, then the Away Agency may pursue payment of the Transaction based on the Away Agency's business rules. If the Away Agency decides to pursue payment via invoicing without submitting Transactions to the Hub, the Away Agency will make their best effort to notify their Local Hub who will, in turn, notify the Other Hubs to notify their Agencies.
- NIOP-DIR-31.** A Home Agency may reject a non-guaranteed Interoperable Transaction that is created by a Vehicle associated with an Invalid Tag at the time of the Transaction.
- NIOP-DIR-32.** A Home Agency shall reject an Interoperable Transaction that (1) is a Duplicate Transaction, or (2) comprises a record that does not conform to the requirements of the ICD.

- NIOP-DIR-33.** Rejected Interoperable Transactions processed by the Home Agency shall be classified as “rejected” (or as a status as specified in the ICD) and returned to the Away Agency via the Hub, where the Interoperable Transaction occurred. Rejected Interoperable Transactions are not subject to the guaranteed payment rules.
- NIOP-DIR-48.** The Away Agency shall utilize due diligence when investigating transactions rejected as duplicates and shall verify that the transaction is not a duplicate prior to resubmission to the Home Agency.
- NIOP-DIR-34.** Processing of customer Transactions at the Away Agency when the Tag is reported as invalid by the Home Agency will be pursuant to the rules and regulations of the Away Agency.
- NIOP-DIR-35.** The Agencies agree to facilitate the identification of violators by the sharing of appropriate information or submissions to the extent permitted by law and their end user license agreement.
- NIOP-DIR-36.** The Agencies will share customer account information only for the purpose of collecting tolls, the enforcement of toll policies or as otherwise applicable by law.
- NIOP-DIR-37.** The Away Agencies will process toll Transaction images in such a manner as to identify customers' accounts in good standing and thereby create a valid Transaction if the result is associated with a Valid Tag.
- NIOP-DIR-38.** If cash, or equivalent, is collected by the Away Agency for any Transaction when the tag is read and used as payment at the same time, the Away Agency will strive to not transfer any such Transactions to the NIOP Hub (and then to the Home Agency) for payment. For example: the Oklahoma Turnpike Authority (OTA) has cash paying customers who also pay via their PikePass. Resolution will be via the dispute process.
- NIOP-DIR-39.** The Home Agency may elect to not process Interoperable Transactions submitted to the Home Agency by the Away Agency more than ninety (90) days after the date and time of the Interoperable Transaction.
Note: The timing is based on the Transaction date. If the Transaction is sent to the Home Agency after the allotted time, the Home Agency may choose not to process the Transaction. If the Home Agency does not process the Transaction, the Away Agency may choose to invoice the Transaction. The calculation using the fields in the NIOP ICD is: Current date/time minus Transaction Exit Date/Time > 60.0 days.
- NIOP-DIR-40.** Away Agencies shall filter out duplicate Transactions prior to sending to the Home Agency.
- NIOP-DIR-41.** Home Agencies shall filter out duplicate Transactions from Away Agencies. In the event the Home Agency does receive duplicate Transaction(s), it shall not Post or remit payment to the Away Agency for the duplicate Transaction(s).

NIOP-DIR-42. If an Interoperable Transaction from an Away Agency’s facility is adjusted, the Away Agency may submit the adjusted Transaction to the Home Agency for posting within one hundred-eighty (180) days of the Transaction date. Transaction adjustments (corrections) are not guaranteed by the Home Agency.
Note: The timing is based on the Transaction date and adjustment (correction) date. If an adjustment is made after the allotted time, the Home Agency may choose to not process the adjustment. The calculation using the fields in the NIOP ICD is: Away Agency Correction Date/Time of the SCORR record minus Transaction Exit Date/Time of the original STRAN record <= 180.0 days.

NIOP-DIR-43. A Home Agency may identify a license plate as guaranteed in the TVL or PVL as defined in the NIOP ICD. Video Transactions associated with license plates that are guaranteed will be guaranteed in the same manner as Valid Tag Transactions.

NIOP-DIR-44. An NIOP Hub shall submit a customer Transaction only to one Home Agency for posting and payment.

NIOP-DIR-45. In the event there is more than one Home Agency for one Tag, the Away Hub shall determine where to send the Transaction.

NIOP-DIR-46. If a transaction is rejected due to insufficient funds, it may be resubmitted by the Away Agency. The Away Hub shall resubmit the Transaction to the same Home Agency as the original Transaction.

NIOP-DIR-47. In the event the Away Hub receives a status for the same tag from two different Home Agencies, the Away Hub should use the most recently updated ‘good’ tag status when processing Transactions.

For example, an Oklahoma Turnpike Authority (OTA) customer moves to Harris County Texas. They open an account at the Harris County Toll Road Authority (HCTRA) and have their OTA PikePass assigned to their HCTRA account. The customer does not close their OTA Account. Both Home Agencies (OTA and HCTRA) have the same tag with a good status.

OTA and HCTRA send the OTA Tag in their TVL to the Central US Hub. The Central US Hub detects the same tag from two different Home Agencies.

When a Transaction containing the OTA Tag occurs at an Away Agency, the Away Agency will send the Transaction to the Away Hub. The Away Hub will determine the Home Agency based on which tag has the most recent good status and send the Transaction to the Home Hub for routing to the Home Agency.

NIOP-DIR-49. A license plate in a TVL is considered valid starting at the License Plate Effective From Date and continues to be valid until the License Plate Effective To Date, if one is present. For License Plates in the TVL, the Tag Status must be Valid for a License Plate to be considered a Valid License Plate. License plates associated with an invalid tag will be considered invalid.

Reporting Requirements

- NIOP-REP-1.** All Interoperable Agencies shall comply with established reporting requirements as defined in these business rules.
- NIOP-REP-2.** The NIOP Hubs shall produce a Transaction Submission Performance report. This report shall contain at a minimum, the submission receive date, submission identifier, the date and time the contents of the submission are sent to each Home Agency, and the date and time the Transaction submissions are responded to by each Home Agency. Please refer to Business Rules for Interoperability – Appendix A – Reports.
- NIOP-REP-3.** In general, reports will be generated and distributed by each NIOP Hub and Agency, as applicable, for which there are Transactions to settle.
- NIOP-REP-4.** Every report shall be able to be exported in CSV (with and without titles) and pdf.
- NIOP-REP-5.** Data for summary reports shall be available for a period of two (2) years.
Note: The timing is based on the Transaction submission date. The calculation using the fields in the NIOP ICD is: Current date – Submission Date from the STRAN (or SCORR) submission <= 2.0 years.

Performance Requirements

Hub Performance Requirements

- NIOP-PER-1.** Receipt of a Transaction Submission shall be Acknowledged by the Home Hub to the Away Hub within sixty (60) minutes after receipt. Refer to NIOP-DIR-23.
Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation, using the fields in the NIOP ICD, is Home Hub Acknowledgement Date/Time of the STRAN (or SCORR) (from the Away Hub) minus Away Hub Submission Date/Time of the STRAN (or SCORR) <= 60.0 minutes.
- NIOP-PER-2.** Receipt of a TVL File shall be acknowledged by the Away Hub to the Home Hub within sixty (60) minutes after receipt.
Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time (first ACK) of the TVL (from the Home Hub) minus Submission Date/Time of the TVL (from the Home Hub) <= 60.0 minutes. Refer to NIOP-DIR-6.
- NIOP-PER-3.** The Away Hub shall process the Acknowledged TVL File and make available the Home TVL File to the Away Agencies within sixty (60) minutes after receipt.
Note: The timing is based on the date and time in the submission header. The calculation using the fields in the NIOP ICD is Date and Time the TVL is distributed (or made

available – depending on how this is done) to the Away Agencies minus Away Hub Acknowledgement Date/Time (first ACK) of the TVL (from the Home Hub) <= 60.0 minutes.

NIOP-PER-4. The Away Hub shall send the second TVL ACK, indicating the TVL activation date/time, to the Home Hub within four (4) hours. The Home Hub shall send the separate 2nd TVL ACK to its Home Agenc(ies) as needed.
Note: The timing starts at the date and time in the TVL’s submission header. If the time is not met, the TVL will not become active. Transactions where tags are added as Valid may not be recognized by the Away Agency and Customers may receive invoices or other notifications to pay other than their toll posted to their account. Tags that have transitioned to Invalid may continue to be guaranteed due to an earlier Valid Tag Status. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time (second ACK) of the TVL (from Home Hub) minus Submission Date/Time of the TVL <= 4.0 hours.

NIOP-PER-5. The Away Hub shall send the second Reconciliation Submission ACK, indicating the Reconciliation Date, to the Home Hub within four (4) hours. The Home Hub shall send the separate 2nd Reconciliation Submission ACK to its Local Home Agenc(ies), as needed.
Note: The timing is based on the date and time in the Reconciliation submission header. Transactions will not have a Reconciliation Date until the 2nd ACK is received. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time (second ACK) of the SRECON (from Home Hub) minus Home Hub’s SRECON Submission Date/Time <= 4.0 hours.

NIOP-PER-6. The Home Hub shall report, the status of a processed Interoperable Transaction within forty-eight (48) hours of receipt of the Transaction submission containing the Interoperable Transaction.
Note: The timing starts based on the date and time in the Transaction submission header. When the timing is not met the Home Hub should create Reconciliation records that contain “S” at the Posting Disposition for the Transactions that were not responded to. The calculation using the fields in the NIOP ICD is: Home Hub SRECON Transmission Date/Time minus Away Hub STRAN (or SCORR) Submission Date/Time <= 48.0 hours. Refer to NIOP-DIR-24.

Fees

NIOP-FEE-1. The Away Agency shall pay the Home Agency (via the Home Hub’s Custodian) a Base Transaction Fee and/or Variable Fee for each Interoperable Toll Transaction that is not rejected, as defined by the Interoperability Agreement between two NIOP Hubs.

NIOP-FEE-2. Transaction Fees shall be reviewed and determined in accordance with procedures agreed upon by the parties to the Interoperability Agreement between two NIOP Hubs. The determined Transaction Fees shall be adopted by, and applicable to, all

Interoperable Agencies unless a bilateral agreement exists between Agencies establishing a specific fee.

- NIOP-FEE-3.** Transaction Fees may be adjusted when a Transaction correction is processed, as defined by the applicable Interoperability Agreement between two NIOP Hubs. A Transaction correction is defined to be a class adjustment, toll credit (ignore original Transaction), location correction, toll adjustment or other reason where the toll is adjusted, as defined in the ICD.

Testing Requirements

Hub Testing Requirements

- NIOP-TST-1.** Each NIOP Hub shall undergo and pass the minimum set of agreed-upon test requirements for certification promulgated by the NIOP Test document.
- NIOP-TST-2.** Testing for Interoperability shall be at the expense of the Local Hub Agencies who are serviced by the NIOP Hub.

Home and Away Agency Testing Requirements

- NIOP-TST-3.** Each Agency shall undergo and pass the minimum set of agreed-upon test requirements for certification promulgated by the NIOP Test document.
- NIOP-TST-4.** Testing for Interoperability shall be at the expense of the Agency being certified as interoperable.

Notification of Maintenance and Modifications

- NIOP-MNT-1.** Interoperable Agencies shall strive to provide a minimum of thirty (30) days notification of tolling system changes, including lane configuration changes that affect interoperability. Agencies will notify their Local Hub, who will strive to disseminate the information to the Other Hubs. The Other Hubs will strive, in turn, to disseminate the information to their Local Agencies.
Note: This is a process managed by the Agency engaging in tolling system changes.
- NIOP-MNT-2.** Each Interoperable Agency, in receipt of another Interoperable Agency's configuration change or update notification, shall provide notification of intent to configure any required modification to their system's configuration within thirty (30) days. For example, Agencies will notify their Local Hub, who will strive to disseminate the information to the Other Hubs. The Other Hubs will strive, in turn, to disseminate the information to their Local Agencies. NIOP Agencies will make configuration changes, as needed, to accept and process Transactions from the additional roadway.
Note: This is managed operationally.

- NIOP-MNT-3.** Interoperable Agencies shall strive to provide a minimum of thirty (30) days' notice of scheduled system maintenance to their respective system that will impact another Interoperable Agency and/or the processing of Transactions.
Note: This is a process managed by the Agency engaging in the system maintenance activities.
- NIOP-MNT-4.** Interoperable Agencies will provide immediate notification of a delay in transaction processing that may impact interoperable transactions. Agencies will notify their Local Hub, who will strive to disseminate the information to the Other Hubs. The Other Hubs will strive, in turn, to disseminate the information to their Local Agencies.
- NIOP-MNT-5.** Interoperable Agencies that identifies needed change(s) to National Interoperability shall discuss change(s) within its Region. After review, the Region may draft a change request and present it to the other Regions. The Regions, jointly, will discuss and evaluate the proposed change.
- NIOP-MNT-6.** After discussion and evaluation of a needed change(s), the Region originating the change request will develop any specific technical recommendations for consideration by all the Regions. Upon approval by all the Regions, the change(s) will be made and documented in the NIOP Business Rules and ICD, as applicable. Changes will be phased into each Hub, as needed.
- NIOP-MNT-7.** Semi-annual technical meetings will be scheduled to review technical interoperability topics.

Interoperability Using License Plates Only

The business rules in this section are specified to address interoperability of Vehicles where a License Plate is not associated with a Valid Tag.

NIOP-LP-1. Accepting and processing Plate Validation Lists and utilizing the list for transaction processing is optional for agencies without video toll capabilities.

NIOP-LP-2. There may be multiple Home Agencies for license plates that are eligible for interoperability and a license plate may be in more than one Plate Validation List

License Plate Validation Lists

NIOP-LP-3. The Home Agency shall provide its interoperable license plates that are not associated with Tags separately from the license plates that are associated with Tags. License plates associated with Tags shall be in the TVL, license plates not associated with Tags shall be in the PVL.

NIOP-LP-4. The NIOP Hubs shall electronically exchange Bulk Plate Validation Lists (PVL) on a regular schedule, at least once per week. The Bulk PVL will have “current” valid license plates. License plates that are not valid are excluded from the Bulk PVL.

Note: If a Home Agency does not provide their Bulk PVL in sufficient time to be included in the Home Hub’s Bulk PVL, the Home Hub should derive the Bulk PVL for the Home Agency and include the derived PVL in the Home Hub’s Bulk PVL. Refer to NIOP ICD Appendix D.

NIOP-LP-5. A license plate in a PVL is considered valid starting at the License Plate Effective From Date and continues to be valid until the License Plate Effective To Date, if one is present.

NIOP-LP-6. When changes occur to the Plate Validation List, Home Agencies shall create a Differential Plate Validation List and distribute via the NIOP Hubs. The Differential PVL contains new or updated valid license plates as compared to the last Bulk PVL and license plates that are no longer valid. The Differential PVLs are exchanged at least daily.

Note: If a Home Agency does not provide their PVL in sufficient time to be included in the Home Hub’s Differential PVL, the Home Hub should include the most recent Home Agency Differential PVL received after the most recently active Bulk PVL and include it in the Home Hub’s Differential PVL.

NIOP-LP-7. Each Plate Validation List (Bulk or Differential) shall be acknowledged (ACK) by the receiving Hub within sixty (60) minutes of receipt.

Note: The timing is based on the date and time in the submission header. If an ACK is not received, the submission should be resent. If still no ACK, the technical staff should be notified. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement

Date/Time (first ACK) of the PVL (from Home Hub) minus PVL Submission Date/Time <= 60.0 minutes.

NIOP-LP-8. Each Hub shall maintain a historical record of each Plate Validation List sent to and received from the other Interoperable Agencies and Hubs for a minimum period of one hundred-eighty (180) days.

Note: The timing starts when the PVL is acknowledged. If the history is not maintained, it may be difficult to research customer complaints. The calculation using the fields in the NIOP ICD is: Away Hub Acknowledgement Date/Time of the PVL (from Home Hub) minus PVL Submission Date/Time <= 180.0 days

NIOP-LP-9. Each Hub shall provide a utility to be used by authorized users to pull a license plate's history in the event of a dispute or other inquiry.

NIOP-LP-10. The Local Agency's PVL (ACK) date and time is recorded by the NIOP Local Hub who made the PVL available.

NIOP-LP-11. In the event the Home NIOP Hub receives a status for the same license plate from two different Home Agencies, the NIOP Hub shall not filter the license plates when creating and distributing the PVLs.

Transactions

NIOP-LP-12. A transaction dated after the License Plate Effective To date will not be included in the Transaction Submission to the Local Hub.

NIOP-LP-13. When the Home Agency posts an Interoperable Transaction to a customer's account the license plate number, state and country shall be maintained for Video Transactions.

NIOP-LP-14. The Away Agencies will process toll Transactions and their associated images in such a manner as to identify Valid Tags and/or Valid License Plates in the TVL and/or PVL and create a Valid Transaction.

NIOP-LP-15. Video transactions associated with a Valid License Plate in the PVL will be guaranteed in the same manner as Valid Tag Transactions for the purpose of interoperability if the license plate is identified as "guaranteed" in the PVL.



Business Rules for National Interoperability – Appendix A - Reports
Version 1.00
FINAL

LAST UPDATE: MAY 2023

DOCUMENT HISTORY

Revision Date	Version	Revision Description
3/15-20/2023		Created. Reviewed internally w/DH and GH.
5/1/2023	1.00	Removed "DRAFT FOR REVIEW" and made FINAL with approval from the National Interoperability group at IBTTA Tech Summit in Indianapolis, IN.

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General Reporting Requirements

This appendix contains the NIOB reporting requirements as supported by the NIOB Business Rules.

When reports are shared between hubs, the date and time shall be in UTC format.

NIOB Transaction Reconciliation Summary Report

The Transaction Reconciliation Summary Report for each NIOB Hub, between Hubs, shall contain the following fields, at a minimum:

1. Away Agency
2. Home Agency
3. Receiving Hub/Agency Submission Identifier
4. Receiving Hub/Agency Submission Sequence Number
5. Reconciliation Date/Time (2nd ACK)
6. Total TXNS/Resubmitted TXNS #
7. Accepted TXNS #
8. Accepted Amount \$
9. Rejected TXNS #
10. Rejected Amount \$
11. Total Reconciliation TXNS Amount \$
12. Fixed Fee \$
13. % Fee \$
14. Total Adjustments/Resubmitted Adjustments TXNS #
15. Accepted Adjustments TXNS #
16. Accepted Adjustments Amount \$
17. Rejected Adjustments TXNS #
18. Rejected Adjustments Amount \$
19. Total Reconciliation Adjustments TXNS Amount \$
20. Adjustments Fixed Fee \$
21. Adjustments % Fee \$
22. Total Fees \$
23. Net Payable \$
24. Report Totals – not required on the Excel or CSV versions

For reconciliation purposes between hubs, the Reconciliation Date (2nd ACK Date) in UTC shall be used.

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Please refer to the NIOB ICD for specific field definitions.

Figure 1: NIOP Transaction Reconciliation Summary Report Sample – Part 1

NIOP Transaction Reconciliation Summary

Selection Criteria:

Time Zone: UTC
 Start Date/Time: 3/14/2023 00:00:00
 End Date/Time: 3/14/2023 23:59:59
 Date Type: Reconciliation Date/Time (2nd ACK)
 Away Hub: Central US Hub
 Away Agency: All Central US Hub Agencies
 Home Hub: Southeast US Hub
 Home Agency: All Southeast US Hub Agencies
 Submission Type: All
 Group Sort 1: Away Agency
 Group Sort 2: Home Agency
 Group Sort 3: Sending Hub/Agency Submission Identifier
 Generated By: Central US Hub

Sending Hub/Agency Submission Identifier	Sending Hub/Agency Submission Number	Acknowledgment Date/Time	Receiving Hub/Agency Submission Identifier	Receiving Hub/Agency Submission Number	Reconciliation Date (2nd ACK)	Return Code	Guaranteed Flag?	Total Submission TXNS # (A)	Total TXNS Resubmitted TXNS # (B)	Accepted TXNS # (C)	Accepted Amount \$ (D)	Rejected TXNS # (E)	Rejected Amount \$ (F)	System Error TXNS # (G)	System Error Amount \$ (H)	Total Reconciliation TXNS # (C+E+G)	Total Reconciliation Amount \$ (D+F+H)	Fixed Fee \$ (I)	% Fee (J)	
																				Total Submission TXNS # (A)
Kansas Turnpike Authority																				
Florida Turnpike Enterprise																				
9902_0006_0000_2023031018005 STRAN		13719	03/14/2023 10:53:48	9002_0041_0000_20230314130000 STRAN	733077	03/14/2023 01:30:21	00	Y	203	203	200	1,270.00	3	15.00	0	0.00	203	1,285.00	0.00	38.28
9902_0006_0000_2023031017150 SCORR		12696	03/14/2023 17:16:04	9002_0006_0000_2023031017050 SCORR	733010	03/14/2023 17:30:25	00	Y	1	1	0	0.00	0	0.00	1	0.00	1	0.00	0.00	0.00
Florida Turnpike Enterprise Total:																				
								204	204	200	\$1,270.00	3	\$15.00	1	\$15.00	204	\$1,317.50	\$0.00	38.28	
Kansas Turnpike Authority Total:																				
								204	204	200	\$1,270.00	3	\$15.00	1	\$15.00	204	\$1,317.50	\$0.00	38.28	
North Texas Tollway Authority																				
Florida Turnpike Enterprise																				
9902_0041_0000_20230314140221 STRAN	3864965	03/14/2023 14:03:08	9002_0041_0000_20230314142001 STRAN	7336417	03/14/2023 21:30:10	00	Y	602	602	600	2,185.12	2	2.17	0	0.00	602	2,187.29	0.00	64.87	
9902_0041_0000_20230314130027 STRAN	3864963	03/14/2023 13:10:11	9002_0041_0000_20230314130015 STRAN	7336057	03/14/2023 21:08:29	00	Y	996	996	989	4,820.89	7	36.06	0	0.00	996	4,856.95	0.00	144.99	
9902_0041_0000_20230314101750 STRAN	3864961	03/14/2023 11:13:11	9002_0041_0000_20230314112013 STRAN	7335908	03/14/2023 19:25:50	00	Y	613	613	612	2,687.20	1	26.20	0	0.00	613	2,713.40	0.00	80.87	
9902_0041_0000_20230314011610 STRAN	3864960	03/14/2023 16:10:10	9002_0041_0000_20230314000000 STRAN	7335950	03/14/2023 16:35:58	00	Y	737	737	734	3,183.46	3	16.04	0	0.00	737	3,200.50	0.00	95.68	
9902_0041_0000_20230314091433 STRAN	3864959	03/14/2023 09:23:13	9002_0041_0000_20230314000010 STRAN	7335617	03/14/2023 19:15:08	00	Y	575	575	570	3,318.34	5	45.31	0	0.00	575	3,363.65	0.00	99.83	
9902_0041_0000_20230314071807 STRAN	3864958	03/14/2023 08:23:08	9002_0041_0000_20230314000000 STRAN	7335204	03/14/2023 14:19:46	00	Y	487	487	486	2,345.04	1	11.80	0	0.00	487	2,356.84	0.00	76.80	
9902_0041_0000_20230314072058 STRAN	3864957	03/14/2023 07:33:10	9002_0041_0000_20230314070010 STRAN	7335250	03/14/2023 14:30:25	00	Y	1,225	1,225	1,221	10,490.32	4	49.20	0	0.00	1,225	10,539.52	0.00	314.80	
9902_0041_0000_20230314062031 STRAN	3864956	03/14/2023 06:20:30	9002_0041_0000_20230314000000 STRAN	7335070	03/14/2023 19:30:55	00	Y	987	987	981	5,002.84	6	29.60	0	0.00	987	5,032.44	0.00	207.28	
9902_0041_0000_20230314053442 STRAN	3864955	03/14/2023 05:45:57	9002_0041_0000_20230314000000 STRAN	7334609	03/14/2023 18:42:45	00	Y	409	409	408	2,122.06	1	7.40	0	0.00	409	2,129.46	0.00	63.62	
9902_0041_0000_20230314044433 STRAN	3864949	03/14/2023 04:50:11	9002_0041_0000_20230314001000 STRAN	7334020	03/14/2023 18:07:42	00	Y	562	562	561	2,274.36	1	4.80	0	0.00	562	2,279.16	0.00	69.26	
9902_0041_0000_20230314030816 STRAN	3864947	03/14/2023 04:03:18	9002_0041_0000_20230314000000 STRAN	7334020	03/14/2023 18:42:30	00	Y	303	303	303	1,361.11	0	0.00	0	0.00	303	1,361.11	0.00	40.80	
9902_0041_0000_20230314030237 STRAN	3864945	03/14/2023 03:03:14	9002_0041_0000_20230314000000 STRAN	7334017	03/14/2023 14:14:52	00	Y	194	194	192	1,222.39	2	30.80	0	0.00	194	1,272.99	0.00	36.69	
9902_0041_0000_20230314020004 STRAN	3864944	03/14/2023 02:13:12	9002_0041_0000_20230314000000 STRAN	7334168	03/14/2023 12:29:27	00	Y	264	264	264	1,361.08	0	0.00	0	0.00	264	1,361.08	0.00	40.80	
9902_0041_0000_20230314011622 STRAN	3864942	03/14/2023 01:26:12	9002_0041_0000_20230314010001 STRAN	7334074	03/14/2023 13:02:35	00	Y	280	280	279	1,211.82	1	2.36	0	0.00	280	1,214.18	0.00	36.38	
9902_0041_0000_20230314002459 STRAN	3864941	03/14/2023 00:34:22	9002_0041_0000_20230314000000 STRAN	7333024	03/14/2023 12:53:26	00	Y	268	268	268	955.69	0	0.00	0	0.00	268	955.69	0.00	29.87	
9902_0041_0000_20230313221618 STRAN	3864938	03/13/2023 22:16:18	9002_0041_0000_20230313200000 STRAN	7333046	03/14/2023 06:14:52	00	Y	284	284	284	982.74	2	16.48	0	0.00	284	1,000.14	0.00	28.42	
9902_0041_0000_20230313220902 STRAN	3864938	03/13/2023 22:33:11	9002_0041_0000_20230313200000 STRAN	7333167	03/14/2023 07:14:59	00	Y	284	284	259	880.13	5	6.53	0	0.00	284	886.66	0.00	26.37	
9902_0041_0000_20230313215241 STRAN	3864936	03/13/2023 21:52:41	9002_0041_0000_20230313200000 STRAN	7333068	03/14/2023 06:05:53	00	Y	307	307	303	992.87	4	6.91	0	0.00	307	999.78	0.00	29.36	
9902_0041_0000_20230313192407 STRAN	3864933	03/13/2023 19:43:56	9002_0041_0000_20230313200018 STRAN	7332481	03/14/2023 02:54:00	00	Y	300	300	300	489.34	0	0.00	0	0.00	300	489.34	0.00	20.52	
9902_0041_0000_20230313183402 STRAN	3864932	03/13/2023 18:40:28	9002_0041_0000_20230313180018 STRAN	7332176	03/14/2023 03:30:24	00	Y	269	269	268	940.88	1	1.84	0	0.00	269	942.72	0.00	28.61	
9902_0041_0000_20230313174036 STRAN	3864931	03/13/2023 17:40:36	9002_0041_0000_20230313181013 STRAN	7331921	03/14/2023 02:21:59	00	Y	353	353	350	922.88	3	2.33	0	0.00	353	925.21	0.00	27.63	
9902_0041_0000_20230313164033 STRAN	3864930	03/13/2023 16:40:32	9002_0041_0000_20230313171144 STRAN	7331742	03/14/2023 01:48:05	00	Y	591	591	591	1,664.21	0	0.00	0	0.00	591	1,664.21	0.00	50.05	
9902_0041_0000_20230313155001 STRAN	3864927	03/13/2023 15:50:01	9002_0041_0000_20230313170000 STRAN	7331608	03/14/2023 01:16:21	00	Y	575	575	568	1,506.24	7	10.93	0	0.00	575	1,517.17	0.00	46.63	

Figure 2: NIOP Transaction Reconciliation Summary Report Sample – Part 2

Adjustments/Resubmitted Adjustments

Total Adjustments/Resubmitted Adjustments TXNS # (M)	Accepted Adjustments TXNS # (N)	Accepted Adjustments Amount \$ (O)	Rejected Adjustments TXNS # (P)	Rejected Adjustments Amount \$ (Q)	System Error Adjustments TXNS # (R)	System Error Adjustments Amount \$ (S)	Total Reconciliation Adjustments TXNS # (N+P+R=T)	Total Reconciliation Adjustments Amount \$ (O+Q+S=U)	Adjustments Fixed Fee \$ (V)	Adjustments % Fee \$ (W)	Total Fee \$ (K+L+V+W=X)	Net Payable \$ (D-O-X=Y)
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	38.28	1,231.72
0	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	0.00	0.00
3	0	0	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$38.28	\$1,231.72
3	0	0	0	\$0.00	0	\$0.00	0	\$0.00	\$0.00	\$0.00	\$38.28	\$1,231.72
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	64.87	2,100.25
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	144.99	4,675.90
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	80.97	2,616.25
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	95.69	3,087.77
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	99.83	3,218.51
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	76.57	2,469.02
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	314.80	10,175.52
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	207.33	6,695.61
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	63.62	2,058.44
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	68.26	2,206.12
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	40.80	1,320.31
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	36.69	1,185.70
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	40.86	1,320.22
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	36.34	1,175.48
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	28.97	937.71
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	29.42	953.32
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	26.37	853.76
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	26.76	866.21
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	20.56	668.92
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	19.41	626.66
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	27.83	895.05
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	50.05	1,614.26
1	0	0	0	0.00	0	0.00	0	0.00	0.00	0.00	46.93	1,519.31

The required fields are highlighted in green in the embedded csv sample.



NIOP Transaction report - Reconciliation Repo 2023-03-15T135006.

NIOP Transaction Reconciliation Detail Report

The NIOP Transaction Reconciliation Detail report should provide a report of the transactions and their reconciliation that sums up to the NIOP Reconciliation Summary report.

This report is provided on demand to each Hub or Agency in CSV format. The detailed reconciliation and settlement report shall provide the user with the ability to select the Home Agency (or all), Away Agency and Facility (or all), and report period. The user may filter the report period to be by Transaction date, Reconciliation Date, or Transaction submission date.

The Transaction Reconciliation Summary Report for each NIOP Hub, between Hubs, shall contain the following fields, at a minimum:

1. Away Agency
2. Home Agency
3. Receiving Hub/Agency Submission Identifier
4. Reconciliation Date/Time (2nd ACK)
5. Transaction Reference ID
6. Record Type
7. Facility ID
8. Exit Plaza
9. Exit Lane
10. Exit Date/Time
11. NIOP Tag Agency ID
12. Tag Serial Number
13. License Plate Country
14. License Plate State
15. License Plate Number
16. License Plate Type
17. Guaranteed Flag?
18. Vehicle Class
19. Resubmit Count
20. Resubmit Reason
21. Adjustment Count
22. Adjustment Reason
23. Post Status
24. Toll Amount \$
25. Accepted Amount \$
26. Rejected Amount \$
27. Fixed Fee \$
28. % Fee \$
29. Total Fees \$
30. Net Payable \$
31. Tag Status
32. Posted Date/Time
33. Report Totals – not required on the Excel or CSV version

For reconciliation purposes between hubs, the Reconciliation Date (2nd ACK Date) in UTC shall be used.

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Please refer to the NIOP ICD for specific field definitions.

Figure 3: NIOP Transaction Reconciliation Detail Report Sample – Part 1

NIOP Transaction Reconciliation Detail																		
Agency	Home Agency	Sending Hub/Agency Submission Identifier	Receiving Hub/Agency Submission Identifier	Reconciliation Date/Time (2nd ACK)	Transaction Reference ID	Record Type	Facility ID	Exit Place	Exit Lane	Exit Date/Time	Tag Agency ID	Tag Serial Number	License Plate Country	License Plate State	License Plate Number	License Plate Type	Guaranteed Flag?	Vehicle Class
Kansas Turnpike Authority	Florida Turnpike Enterprise	9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468913	TC01	KTA	PL2183	07	03/06/2023 06:37:08	0055	00140860					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468914	TC01	KTA	PL2177	08	03/06/2023 07:15:03	0064	02818987					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468944	TC01	KTA	PL2177	10	03/06/2023 07:23:47	0064	12711517					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468916	TC01	KTA	PL2186	09	03/06/2023 08:26:30	0064	14128400					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468929	TC01	KTA	PL2177	09	03/06/2023 11:14:03	0064	14128400					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468930	TC01	KTA	PL2177	09	03/06/2023 11:24:28	0064	14128400					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468932	TC01	KTA	PL2183	08	03/06/2023 11:35:38	0064	00016218					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468936	TC01	KTA	PL2177	10	03/06/2023 12:05:36	0064	12018075					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468941	TC01	KTA	PL2177	08	03/06/2023 12:11:09	0064	02818982					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468945	TC01	KTA	PL2183	14	03/06/2023 12:28:16	0064	02818989					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468956	TC01	KTA	PL2177	08	03/06/2023 12:44:19	0055	01418111					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468957	TC01	KTA	PL2177	08	03/06/2023 12:48:58	0055	05827827					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468961	TC01	KTA	PL2177	10	03/06/2023 12:53:21	0055	05570215					Y	5
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468961	TC01	KTA	PL2177	10	03/06/2023 13:08:01	0055	15046493					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468963	TC01	KTA	PL2177	08	03/06/2023 13:08:12	0064	10020480					Y	2
		9802_0056_0035_2023031510606.STRAN	9802_0056_0035_2023031510606.STRAN	03-14-2023 01:30:21	12468969	TC01	KTA	PL2177	10	03/06/2023 13:41:10	0055	07838879					Y	5

Figure 4: NIOP Transaction Reconciliation Detail Report Sample – Part 2

Resubmit Count	Resubmit Reason	Adjustment Count	Adjustment Reason	Post Status	Toll Amount \$ (A)	Accepted Amount \$ (B)	Rejected Amount \$ (C)	System Error Amount \$ (D)	Fixed Fee \$ (E)	% Fee \$ (F)	Total Fees \$ (E+F+G)	Net Payable \$ (B-G+H)
				P	2.60	2.60				0.08	0.08	2.52
				P	1.35	1.35				0.04	0.04	1.31
				P	6.90	6.90			0.21	0.21	6.69	6.69
				P	6.90	6.90			0.21	0.21	6.69	6.69
				P	2.60	2.60			0.08	0.08	2.72	2.72
				P	6.90	6.90			0.21	0.21	6.69	6.69
				P	6.90	6.90			0.21	0.21	6.69	6.69
				P	2.60	2.60			0.08	0.08	2.52	2.52
				P	26.60	26.60			0.80	0.80	25.80	25.80
				P	2.60	2.60			0.08	0.08	2.52	2.52
				P	3.65	3.65			0.11	0.11	3.54	3.54
				P	3.45	3.45			0.10	0.10	3.35	3.35
				P	3.20	3.20			0.10	0.10	3.10	3.10
				P	2.60	2.60			0.08	0.08	2.52	2.52
				P	7.15	7.15			0.21	0.21	6.94	6.94
				P	6.90	6.90			0.21	0.21	6.69	6.69

The required fields are highlighted in green in the embedded csv sample.



NIOP Transaction report - Reconciliation Detail 2023-03-15T140845.1

NIOP Disputed Toll Transaction Detail Report

The NIOP Disputed Toll Transaction Detail report should be provided to support the detail of disputed transactions and their adjustments. The information on this report is summed into the NIOP Transaction Reconciliation Summary and Detail and Toll and Fee Settlement reports when the transactions are adjusted.

The Disputed Toll Transaction Detail Report for each NIOP Hub, between Hubs, shall contain the following fields, at a minimum:

1. Transaction Reference ID
2. Record Type
3. Tag Agency ID
4. Tag Serial Number
5. License Plate Country
6. License Plate State
7. License Plate Number
8. Home Agency
9. Away Agency
10. Facility ID
11. Exit Plaza
12. Vehicle Class
13. Exit Date/Time
14. Dispute Date/Time
15. Dispute Reason
16. Dispute Status
17. Reject Reason
18. Dispute Resolution Date/Time
19. Adjustment Date/Time
20. Original Amount \$
21. Adjustment \$
22. New Amount \$
23. No Adjustment Applied \$

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Please refer to the NIOP ICD for specific field definitions.

Figure 5: NIOP Disputed Toll Transaction Detail Report Sample

Central US Disputed Transaction

User: DTRAPP
Run Time: 03/17/2023 10:32:32

Dispute Status

A - Accepted	C - Cancelled
E - Expired	P - Pending
R - Rejected	

Transaction Reference ID	Record Type	Tag Agency ID	Tag Serial Number	License Plate Country	License Plate State	License Plate Number	Home Agency	Away Agency	Facility ID	Exit Plaza	Vehicle Class	Exit Date/Time	Dispute Date/Time	Dispute Reason	Dispute Status	Reject Reason	Dispute Resolution Date/Time	Adjustment Date/Time	Adjustment Reason	Original Amount \$ A	Adjustment \$ B	New Amount \$ (A+B+C)	No Adjustment Applied \$ D
229465996	VB01	1110	0870002	US	TX	GRBFUL	NTTA	HCTRA	HDV	HDV5	2	02/18/2023 18:04:09	03/01/2023 17:19:31	License Plate mismatch	A		03/03/2023 08:28:11			1.50	0.00	0.00	1.50
230005646	VB01	1110	0870002	US	TX	GRBFUL	NTTA	HCTRA	TMS	HPFAL	2	02/04/2023 15:45:25	03/01/2023 17:19:31	License Plate mismatch	A		03/03/2023 08:28:11			1.50	0.00	0.00	1.50
236562810	VB01	1110	0870002	US	TX	GRBFUL	NTTA	HCTRA	SHT	SH249	2	02/18/2023 17:24:50	03/01/2023 17:19:31	License Plate mismatch	A		03/03/2023 08:28:11			1.20	0.00	0.00	1.20
254727834	TB01	1111	0511902	US	TX	2429H88	NTTA	CTRAA	183S	THOMPSON MLNB	2	03/07/2023 08:34:54	03/13/2023 11:42:02	License Plate mismatch	A		03/13/2023 13:50:18			1.22	0.00	0.00	1.22
254733454	TB01	1111	0511902	US	TX	2429H88	NTTA	CTRAA	183S	515TMLNB	2	03/07/2023 08:34:53	03/13/2023 11:42:02	License Plate mismatch	A		03/13/2023 13:50:18			1.41	0.00	0.00	1.41
254833082	TB01	1111	0511902	US	TX	2429H88	NTTA	CTRAA	183S	MALMARB	2	03/07/2023 17:56:27	03/13/2023 11:42:02	License Plate mismatch	A		03/13/2023 13:50:18			1.41	0.00	0.00	1.41
254833082	TB01	1111	0511902	US	TX	2429H88	NTTA	CTRAA	183S	THOMPSON MLNB	2	03/07/2023 17:56:27	03/13/2023 11:42:02	License Plate mismatch	A		03/13/2023 13:50:18			1.22	0.00	0.00	1.22
388750842	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	CMRNP	4	02/09/2023 13:48:48	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			1.98	0.00	0.00	1.98
389203012	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	CMRNP	4	02/09/2023 13:48:48	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			1.98	0.00	0.00	1.98
230116000284101184	VB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	ARPTP	2	03/01/2023 12:20:11	03/09/2023 10:54:00	License Plate mismatch	A		03/13/2023 13:28:02			2.05	0.00	0.00	2.05
23011600027600071	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	ARPTP	4	03/13/2023 11:50:02	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			6.15	0.00	0.00	6.15
2302300306710497	VB01	1111	0488044	US	TX	JHS8485	NTTA	TTA	130	CMRNP	2	01/13/2023 19:18:58	03/03/2023 09:16:33	License Plate mismatch	A		03/06/2023 10:01:11			2.05	0.00	0.00	2.05
2302300027290665	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	MGRPR	4	02/06/2023 13:38:45	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			6.15	0.00	0.00	6.15
23024000077030792	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	CMRNP	4	02/09/2023 13:48:48	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			6.15	0.00	0.00	6.15
23062600068680820	VB01	1110	1537283	US	FL	GDW437	NTTA	TTA	130	GDWP	3	01/17/2023 08:38:50	03/10/2023 11:17:36	License Plate mismatch	R	Other	03/13/2023 13:23:16			1.04	0.00	0.00	1.04
23063000078183373	TB01	1110	1537283	US	TX	1537283	NTTA	TTA	130	SKYSP	15	02/09/2023 14:15:08	03/14/2023 09:57:46	Incorrect charge applied/mismatched transaction	A		03/15/2023 09:15:54			10.19	0.00	0.00	10.19

Note: Disputes that have not been resolved will be reported without adjustment information. This is a sample report. Additional fields may be added, as needed, by each Hub.

The required fields are highlighted in green in the embedded csv sample.



Transaction Inquiries 03.01.23 - (Transaction Inquiries 03.01.23 - (

Settlement Statements

Toll Settlement

The Toll Settlement for each NIOP Hub, between Hubs, shall contain the following fields, at a minimum:

1. Away Agencies
2. Home Agencies
3. Generated by Hub
4. Period
5. Groupings by Home Agency and Away Agency that represent the Toll owed to the Away Agency
6. Accepted Transactions # - this may include the accepted resubmitted transaction quantity if another separate row is not listed
7. Accepted Transactions \$ - this may include the accepted resubmitted transaction \$ amount if another separate row is not listed
8. Accepted Adjustments # - this may include the accepted resubmitted adjustment quantity if another separate row is not listed
9. Accepted Adjustments \$ - this may include the accepted resubmitted adjustment \$ amount if another separate row is not listed
10. Totals for the Home Agency and Away Agency
11. Repeated section until every Home Agency and Away Agency is reported
12. Report Totals

For reconciliation purposes between hubs, the Reconciliation Date (2nd ACK Date) in UTC shall be used.

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Please refer to the NIOP ICD for specific field definitions.

Figure 6: NIOP Settlement Statement Sample – Tolls Example

NIOP Toll Settlement

Home Agencies:
Florida Turnpike Enterprise

Away Agencies:
Kansas Turnpike Authority
North Texas Tollway Authority
Oklahoma Turnpike Authority

Generated By: Central US Hub

Activity for the Period: 03/14/2023 to 03/14/2023

Florida Turnpike Enterprise Customers on Kansas Turnpike Authority Roads:

	Transaction Quantity	Toll Transaction Amount
Accepted Transactions:	200	1,270.00
Accepted Resubmitted Transactions:	0	0.00
Accepted Adjusted Transactions:	0	0.00
Accepted Resubmitted Adjusted Transactions:	0	0.00
Toll Amount Due:		\$1,270.00

Florida Turnpike Enterprise Customers on North Texas Tollway Authority Roads:

	Transaction Quantity	Toll Transaction Amount
Accepted Transactions:	13,711	61,161.50
Accepted Resubmitted Transactions:	0	0.00
Accepted Adjusted Transactions:	0	0.00
Accepted Resubmitted Adjusted Transactions:	0	0.00
Toll Amount Due:		\$61,161.50

Florida Turnpike Enterprise Customers on Oklahoma Turnpike Authority Roads:

	Transaction Quantity	Toll Transaction Amount
Accepted Transactions:	736	2,019.65
Accepted Resubmitted Transactions:	0	0.00
Accepted Adjusted Transactions:	0	0.00
Accepted Resubmitted Adjusted Transactions:	0	0.00
Toll Amount Due:		\$2,019.65

Total Toll Due: \$64,451.15

Total Transactions: 14,647

The required fields are highlighted in green in the embedded csv sample.



Settlement -
Tolls.pdf



Settlement -
Tolls.csv

Fee Settlement

The Fee Settlement for each NIOP Hub, between Hubs, shall contain the following fields, at a minimum:

1. Away Agencies
2. Home Agencies
3. Generated by Hub
4. Period
5. Groupings by Home Agency and Away Agency that represent the Fee owed to the Home Agency
6. Accepted Transactions Quantity
7. Accepted Transaction Toll Amount
8. Fixed Fee Amount
9. % Fee Amount
10. Total Fees Due the Home Agency
11. Repeated section until every Home Agency and Away Agency is reported
12. Report Total Fees Due

For reconciliation purposes between hubs, the Reconciliation Date (2nd ACK Date) in UTC shall be used.

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Please refer to the NIOP ICD for specific field definitions.

Figure 7: NIOP Settlement Statement Sample – Fees Example

NIOP Fee Settlement

Home Agencies:
Florida Turnpike Enterprise

Away Agencies:
Kansas Turnpike Authority
North Texas Tollway Authority
Oklahoma Turnpike Authority

Generated By: Central US Hub

Activity for the Period: 03/14/2023 to 03/14/2023

Florida Turnpike Enterprise Customers on North Texas Tollway Authority Roads:

	Transaction Quantity	Toll Transaction Amount	Total Fees Due
Fixed Fees:	13,711	61,161.50	0.00
Fee %:	13,711	61,161.50	1,835.96
Total Fees:			\$1,835.96

Florida Turnpike Enterprise Customers on Oklahoma Turnpike Authority Roads:

	Transaction Quantity	Toll Transaction Amount	Total Fees Due
Fixed Fees:	736	2,019.65	0.00
Fee %:	736	2,019.65	61.50
Total Fees:			\$61.50

Florida Turnpike Enterprise Customers on Kansas Turnpike Authority Roads:

	Transaction Quantity	Toll Transaction Amount	Total Fees Due
Fixed Fees:	200	1,270.00	0.00
Fee %:	200	1,270.00	38.28
Total Fees:			\$38.28

Total Fees Due: **\$1,935.74**

Total Transactions: **14,647**
 Total Fixed Fee Transactions: 14,647
 Total Fee Percent Transactions: 14,647

The required fields are highlighted in green in the embedded csv sample.



Settlement - Fees.pdf



Settlement - Fees.csv

Submission Performance Report

The Submission Performance report for each NIOP Hub, between Hubs, shall contain the following fields, at a minimum:

1. Hub Submission Receive Date/Time
2. From – Whom (which Hub) the Submission was from
3. Submission Identifier – the name of the Submission received
4. Record Count # - The number of records in the submission
5. Hub ACK Date/Time – the date and time the receiving Hub ACKed the submission
6. ACK Return Code – the ACK return code

If multiple ACKs are expected, a second row will report the 2nd ACK.

Although the list above contains the minimum set of columns, the samples below contain additional fields.

Every submission shall be reported (transactions, corrections, Tag Validation lists, License Plate Validation lists and reconciliations).

Figure 8: NIOP Submission Performance Report Sample – Part 1

Central US Submission Performance

Selection Criteria:

Time Zone: Local
 Start Date/Time: 3/14/2023 00:00:00
 End Date/Time: 3/14/2023 23:59:59
 Submission Agency/Hub: All Southeast US Hub Agencies
 Report Section: All
 Received Submissions Date Type: Hub Submission Receive Date/Time
 Sent Submissions Date Type: Hub Submission Sent Date/Time
 Submission Type: All

User: BJEWELL
 Run Time: 03/15/2023 14:37:09

Generated By: Central US Hub

Received Submissions:

Hub Submission Receive Date/Time	From	Submission Identifier	Record Count #	Hub ACK Date/Time	Hub Submission Forwarded Date/Time	Forwarded To	Forwarded To Hub/Agency ACK Date/Time	ACK Return Code	Return Code Description
03/14/2023 00:00:38	Southeast US Hub (9001)	9001_0035_0041_20230314050027.SRECON	327	03/14/2023 01:45:53				13	Reconciliation Acknowledgement. Reconciliation Date defined.
		9002_0000_0041_20230314062125.SRECON	16,780	03/14/2023 00:00:48				00	Submission successfully received and verified.
03/14/2023 00:00:46	Southeast US Hub (9001)	9001_0035_0041_20230314050041.SRECON	264	03/14/2023 00:01:00	03/14/2023 01:21:36	North Texas Tollway Authority (0041)	03/14/2023 01:45:53	11	Reconciliation calculations incorrect. Submission processed.
		9002_0000_0041_20230314064112.SRECON	20,891	03/14/2023 02:14:59	03/14/2023 01:41:23	North Texas Tollway Authority (0041)	03/14/2023 02:14:59	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 00:00:58	Southeast US Hub (9001)	9001_0035_0041_20230314050050.SRECON	284	03/14/2023 00:44:52				13	Reconciliation Acknowledgement. Reconciliation Date defined.
		9002_0000_0041_20230314051059.SRECON	20,844	03/14/2023 00:01:15	03/14/2023 00:11:11	North Texas Tollway Authority (0041)	03/14/2023 00:44:52	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 02:00:35	Southeast US Hub (9001)	9001_0035_0041_20230314070030.SRECON	280	03/14/2023 02:00:43				00	Submission successfully received and verified.
		9002_0000_0041_202303141122114.SRECON	17,836	03/14/2023 08:02:35	03/14/2023 07:21:29	North Texas Tollway Authority (0041)	03/14/2023 08:02:35	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 06:00:39	Southeast US Hub (9001)	9001_0035_0041_20230314110030.SRECON	264	03/14/2023 06:00:46				00	Submission successfully received and verified.
		9002_0000_0041_20230314112120.SRECON	14,034	03/14/2023 07:29:27	03/14/2023 06:21:30	North Texas Tollway Authority (0041)	03/14/2023 07:29:27	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 06:00:44	Southeast US Hub (9001)	9001_0035_0041_20230314110037.SRECON	268	03/14/2023 07:03:26				13	Reconciliation Acknowledgement. Reconciliation Date defined.
		9002_0000_0041_20230314112109.SRECON	22,223	03/14/2023 06:00:51	03/14/2023 06:21:23	North Texas Tollway Authority (0041)	03/14/2023 07:03:26	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 08:01:32	Southeast US Hub (9001)	9001_0035_0041_20230314130120.SRECON	575	03/14/2023 14:15:06				00	Submission successfully received and verified.
		9002_0000_0041_20230314184201.SRECON	4,457	03/14/2023 08:01:47	03/14/2023 13:42:10	North Texas Tollway Authority (0041)	03/14/2023 14:15:06	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 08:01:55	Southeast US Hub (9001)	9001_0035_0041_20230314130135.SRECON	987	03/14/2023 14:50:05				13	Reconciliation Acknowledgement. Reconciliation Date defined.
		9002_0000_0041_20230314184152.SRECON	4,668	03/14/2023 08:02:09	03/14/2023 13:42:01	North Texas Tollway Authority (0041)	03/14/2023 14:50:05	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 08:02:07	Southeast US Hub (9001)	9001_0035_0041_20230314130200.SRECON	487	03/14/2023 09:19:40				13	Reconciliation Acknowledgement. Reconciliation Date defined.
		9002_0000_0041_20230314135202.SRECON	2,857	03/14/2023 08:02:18	03/14/2023 08:52:12	North Texas Tollway Authority (0041)	03/14/2023 09:19:40	11	Reconciliation calculations incorrect. Submission processed.
03/14/2023 08:02:19	Southeast US Hub (9001)	9001_0035_0041_20230314130213.SRECON	263	03/14/2023 08:02:25				00	Submission successfully received and verified.
		9002_0000_0041_20230314184106.SRECON	18,002	03/14/2023 14:42:30				13	Reconciliation Acknowledgement. Reconciliation Date defined.

Figure 9: NIOP Submission Performance Report Sample – Part 2

Hub Submission Sent Date/Time	To	Submission Identifier	Record Count #	Sent To Hub/Agency ACK Date/Time	ACK Return Code	Return Code Description
03/14/2023 00:10:22	Southeast US Hub (9001)	9002_0041_0035_20230314051009.STRAN	562	03/14/2023 00:15:18	00	Submission successfully received and verified.
03/14/2023 01:00:37	Southeast US Hub (9001)	9002_0041_0035_20230314060026.STRAN	409	03/14/2023 01:05:14	00	Submission successfully received and verified.
03/14/2023 01:50:51	Southeast US Hub (9001)	9002_0041_0035_20230314065040.STRAN	987	03/14/2023 01:55:26	00	Submission successfully received and verified.
03/14/2023 02:50:13	Southeast US Hub (9001)	9002_0041_0035_20230314075001.STRAN	1,225	03/14/2023 02:55:14	00	Submission successfully received and verified.
03/14/2023 03:40:11	Southeast US Hub (9001)	9002_0041_0035_20230314084000.STRAN	487	03/14/2023 03:45:34	00	Submission successfully received and verified.
03/14/2023 04:40:26	Southeast US Hub (9001)	9002_0041_0035_20230314094010.STRAN	575	03/14/2023 04:45:16	00	Submission successfully received and verified.
03/14/2023 05:20:12	Southeast US Hub (9001)	9002_0041_0035_20230314102000.STRAN	737	03/14/2023 05:25:14	00	Submission successfully received and verified.
03/14/2023 06:20:24	Southeast US Hub (9001)	9002_0041_0035_20230314112013.STRAN	613	03/14/2023 06:25:13	00	Submission successfully received and verified.
03/14/2023 07:30:13	Southeast US Hub (9001)	9002_0041_0035_20230314123001.STRAN	779	03/14/2023 07:40:14	00	Submission successfully received and verified.
03/14/2023 07:50:03	Southeast US Hub (9001)	9002_0055_0035_20230314125000.STRAN	752	03/14/2023 07:55:09	00	Submission successfully received and verified.
03/14/2023 08:20:25	Southeast US Hub (9001)	9002_0041_0035_20230314132013.STRAN	996	03/14/2023 08:25:17	00	Submission successfully received and verified.
03/14/2023 09:20:13	Southeast US Hub (9001)	9002_0041_0035_20230314142001.STRAN	602	03/14/2023 09:25:15	00	Submission successfully received and verified.
03/14/2023 10:10:25	Southeast US Hub (9001)	9002_0041_0035_20230314151014.STRAN	414	03/14/2023 10:15:15	00	Submission successfully received and verified.
03/14/2023 10:40:23	Southeast US Hub (9001)	9002_0056_0035_20230314154021.STRAN	222	03/14/2023 10:45:13	00	Submission successfully received and verified.
03/14/2023 11:20:18	Southeast US Hub (9001)	9002_0041_0035_20230314162006.STRAN	471	03/13/2023 23:25:13	00	Submission successfully received and verified.
03/14/2023 11:41:14	Southeast US Hub (9001)	9002_0055_0037_20230314164106.SRECON	8	03/13/2023 23:45:13	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 11:41:22	Southeast US Hub (9001)	9002_0055_0035_20230314164114.SRECON	35	03/13/2023 23:45:20	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 11:41:28	Southeast US Hub (9001)	9002_0055_0035_20230314164121.SRECON	53	03/13/2023 23:45:25	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 11:41:35	Southeast US Hub (9001)	9002_0055_0037_20230314164128.SRECON	7	03/13/2023 23:45:31	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 11:41:44	Southeast US Hub (9001)	9002_0055_0037_20230314164134.SRECON	8	03/13/2023 23:45:35	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 11:41:49	Southeast US Hub (9001)	9002_0055_0037_20230314164141.SRECON	8	03/13/2023 23:45:49	00	Submission successfully received and verified.
				03/14/2023 12:00:04	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 12:00:36	Southeast US Hub (9001)	9002_0041_0035_20230314170024.STRAN	303	03/14/2023 12:05:22	00	Submission successfully received and verified.
03/14/2023 12:02:08	Southeast US Hub (9001)	9002_0055_0035_20230314170158.SRECON	37	03/14/2023 12:05:29	00	Submission successfully received and verified.
				03/15/2023 03:33:59	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 12:02:18	Southeast US Hub (9001)	9002_0055_0038_20230314170208.SRECON	5	03/14/2023 12:05:40	00	Submission successfully received and verified.
				03/15/2023 03:33:59	13	Reconciliation Acknowledgement. Reconciliation Date defined.
03/14/2023 12:02:29	Southeast US Hub (9001)	9002_0055_0038_20230314170218.SRECON	3	03/14/2023 12:05:45	00	Submission successfully received and verified.



Submission.pdf

Exhibit B

Transaction Fee Model for Interoperability Agreement Between for CUSIOP Entities and the EZIOP Entities

1. **Purpose**

This Exhibit establishes the Transaction fee model to be applied between participating entities under the Interoperability Agreement (“Agreement”). The purpose of this fee structure is to ensure equitable cost recovery for the processing, settlement, and reconciliation of interoperable toll Transactions.

2. **Accepted Transaction Fee Structure**

- a. For each accepted interoperable toll Transaction, the Away Agency shall remit to the Home Agency a fee equal to the sum of:
 - i. Three percent (3%) of the Transaction amount, and
 - ii. Two cents (\$0.02) per Transaction.
- b. The Transaction fee shall always be calculated to the nearest penny.
- c. The Transaction fee shall never be less than \$0.03 per Transaction.

3. **Adjustments to Toll Transactions**

Adjustments to individual toll charges shall not result in automatic adjustments to the fees described in Section 2. Instead, fees shall be based on the aggregate amount of toll charges owed between two participating entities during a specified settlement period. Notwithstanding the foregoing, participating entities to a Transaction may agree to a manual adjustment of the applicable fees.

Exhibit C

Form of Joinder Agreement

[see form attached]

JOINDER AGREEMENT

Reference is hereby made to the Interoperability Agreement between the CUSIOP Entities and the EZIOP Entities, dated as of _____, 2026, as amended from time to time (the "Interoperability Agreement"), made by and among the Parties indicated therein. Pursuant to and in accordance with Section 13 of the Interoperability Agreement, the undersigned hereby acknowledges that it has received and reviewed a complete copy of the Interoperability Agreement, including all Exhibits thereto, and agrees that upon execution of this Joinder Agreement, the undersigned shall become a party to the Interoperability Agreement and shall be fully bound by, and subject to, all of the covenants, terms, and conditions of the Interoperability Agreement as though an original Party thereto and shall be deemed a Party for all purposes thereof and entitled to all the rights incidental thereto.

IN WITNESS WHEREOF, the undersigned, by its duly authorized representative, has executed this Joinder Agreement to be effective as of the date set forth below.

Effective Date: _____, 20__.

[Name of New Party]

By: _____

Print Name: _____

Title: _____

Exhibit D

Copies of Approvals

[see attached]