

# Interoperability Business Requirements

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## **Abstract**

This document contains the business requirements for engaging in interoperability. Interoperability shall be developed for the sole purpose of coordinating the Electronic Toll Collection (ETC) systems of multiple organizations that utilize, operate and manage ETC on toll facilities. This document describes what is required of each Authority from a business perspective in order to enable and maintain sound business relationships.

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# 1. Introduction

## 1.1 Purpose

The purpose of this document is to describe and record all business requirements for interoperability relationships.

## 1.2 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**

<b>Term</b>	<b>Description</b>
Account	An account for the payment of tolls established by a Patron with an Authority and funded with cash, a credit card, or another source of funds acceptable to the Authority.
Authority	An Interoperable Authority.
Bad Debt	Debt incurred by any Authority as a result of a non-collectable Transaction.
Base Transaction Fee	A fee payable by a Visited Authority to a Home Authority for each Interoperable Transaction incurred at the Visited Authority's facility and posted by the Home Authority to its Patron's Account.
Credit Settlement Amount	The amount that one Authority agrees to pay another Authority.
Debit Settlement Amount	The amount that one Authority agrees to receive from another Authority.
Duplicate Transaction	A Transaction apparently generated by a single vehicle at a location that occurs within 2 minutes after a Transaction generated by the same vehicle at the same general location (e.g., same plaza and same or adjacent lane).
ETC	Electronic Toll Collection.
Home Authority	An Authority that issues Transponders to Patrons, owns and manages Accounts associated with those Transponders, and posts Transactions to those Accounts.

<b>Term</b>	<b>Description</b>
ICDs	The Interoperability Interface Control Documents (ICDs) that describe the data interface and the specifics of fields, files, naming conventions, etc., with which each Interoperable Authority must comply in transmitting Interoperable Transaction data.
Interoperable Authority	An agency, company, or other business entity that must comply with the Interoperability Business Requirements and ICDs and be party to an agreement that allows for the settlement of interoperable transactions. This term is used when referring to either the Home or the Visited Authority.
Interoperable Transaction	A Transaction created in a Visited Authority's toll lane either by a vehicle identifiable by a Transponder issued by a Home Authority or by a license plate on the Home Authority's TVL.
Interoperability Business Requirements	This document, which is incorporated by reference into, and is a part of, the Interoperability Interlocal Agreement.
Interoperability Interlocal Agreement	The Interoperability Interlocal Agreement to which these Interoperability Business Requirements are attached.
Invalid Transponder	A Transponder that has a status of lost, stolen, returned, invalid or undefined and/or that is associated with an Account that has been terminated, suspended or has an insufficient balance as determined by the Home Authority.
Non-Transponder-Based Transaction System	An electronic toll collection system that does not employ Transponders as the primary means for toll collection.
Non-Transponder-Based Transaction Fee	A fee payable by a Visited Authority to a Home Authority for each Interoperable Transaction created on a facility of the Visited Authority that employs a Non-Transponder Based Transaction System and that is posted by the Home Authority to its Patron's Account.
Patron	A party that establishes an ETC Account with an Authority.
Post (ed) (ing)	Matching a Transaction to an Account and debiting the corresponding toll amount from the Account.
Reconciliation	The process whereby a Home Authority and a Visited Authority resolve any discrepancies in arriving at final Settlement.

<b>Term</b>	<b>Description</b>
Settle (ment)	The transfer of funds between Interoperable Authorities for Interoperable Transactions, fees and other agreed to amounts.
Statewide Interoperability Network	A data communications structure that allows one Interoperable Authority to exchange data directly with multiple other Interoperable Authorities.
Statewide Interoperability Committee	The Interoperability Committee comprised of representatives of all Interoperable Authorities to formulate and serve as the custodian of all interoperability business rules, interoperability information control documents, and interoperability standards applicable to interoperable toll authorities in the State of Texas and to be responsible for evaluating any proposed amendment to such rules, documents and standards.
Tag Validation List (TVL)	A comprehensive list of Transponders issued by each Interoperable Authority, as specified in the ICDs.
Tag Validation List Update	A list of Tag Validation List changes since the last Tag Validation List Update or Tag Validation List, as specified in the ICDs.
TeamTx	The Transportation and Expressway Authority Membership of Texas (TeamTx), a Texas non-profit corporation whose organizational purposes include the promotion of the common business interests of those engaged in or associated with the development, ownership, operation, financing, and planning of limited access expressways, toll roads, tunnels and bridge facilities within Texas.
Transaction	An electronic record of the passage through an Authority's toll lane by a vehicle.
Transaction Fee	As applicable, a Base Transaction Fee and/or Non-Transponder-Based Transaction Fee.
Transaction Batch File	A data file containing one or more Interoperable Transaction records.
Transponder	A device placed on or within a motor vehicle that is capable of transmitting or receiving information used to assess or collect tolls that results in a recognizable vehicle identification for tolling purposes.
Transponder-Based Transaction System	An electronic toll collection system that employs Transponders as the primary means of toll collection.

<b>Term</b>	<b>Description</b>
Valid Transponder	A Transponder that has a status of good or low balance and/or that is associated with an Account that has not been terminated or suspended and that is considered to have a sufficient balance at the time of TVL/TVL Update creation to pay in full a Transaction posted to the Transponder's associated Account.
Violation Transaction	The passage of a vehicle through a toll lane without proper payment.
Visited Authority	Any Authority, or its designated representative, that is not the customer's Home Authority. The Visited Authority is the entity where the transactions occur and that creates and sends the transactions to the Home Authority. The Visited Authority is responsible for paying the Transaction Fee to the Home Authority.
V-toll	A Violation Transaction that is sent for Posting, or is Posted, to a Patron Account.

## 2 Specific Requirements

This document focuses on the business requirements. These requirements are the minimum with which an Interoperable Authority must comply.

The data interface and the specifics of fields, files, naming conventions, etc. are specified in the ICDs, which included in this document.

### 2.1 Tolling Business Requirements

#### 2.1.1 General Requirements

TBUS-1. Interoperable Authorities shall jointly establish a system that enables a Patron to use one Account to pay tolls at all Interoperable Authorities without the need to take any further action regarding that Account or the associated Transponders.

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TBUS-2. There is a one-to-one relationship between a Transponder and a vehicle. Transponders are vehicle specific.

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TBUS-3. Multiple trailer license plates may be associated with a Transponder for proper V-toll posting.

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TBUS-4. Electronic toll collection equipment used by Interoperable Authorities shall conform to standards approved by the Statewide Interoperability Committee in order for all Transponders to be read by all Interoperable Authorities.

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TBUS-5. Authorities exchanging data via the Statewide Interoperable Network shall comply with all interoperability requirements agreed upon by the Statewide Interoperability Committee, including, but not limited to, these Interoperability Business Requirements and the ICDs.

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TBUS-6. Each Interoperable Authority shall provide time synchronization to the common universal time source NIST and shall ensure that all components of its system are time-synchronized.

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TBUS-7. Account agreements shall be written or revised, as necessary, to comply with these Interoperability Business Requirements.

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TBUS-8. There shall only be one Home Authority for each Transponder in operation. The Authority that issues the Transponder shall be the Home Authority.

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TBUS-9. The Home Authority shall be the only Authority to designate the status of each of its issued Transponders on the TVL in accordance with the ICDs. If a Visited Authority establishes a Local Account, the Visited Authority may NOT include that Transponder on its TVL.

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## **2.1.2 Marketing and Branding**

TBUS-10. All Authorities shall use the common, agreed-upon TxTag® name and logo for marketing the interoperability of its system. The common logo shall be used to identify participating interoperable lanes to the Patron. The TxTag® logo will not be used to identify, market, or sign non-interoperable facilities.

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TBUS-11. An Interoperable Authority that chooses to employ the use of a name for its ETC system other than TxTag® may do so but is required to post the interoperable TxTag® name and logo to inform users of interoperability. The interoperable TxTag® name and logo posted on roadway signage for new installations shall adhere to the size requirements agreed upon by the Statewide Interoperability Committee.

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TBUS-12. The use of the TxTag® name and logo shall identify toll lanes where all Patrons of all Interoperable Authorities may pay tolls electronically. Systems that exclude certain Patron populations may employ a different but similar (i.e., TxTag+, or TxTagPlus) name that will also be trademarked and licensed to all Interoperable Authorities.

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TBUS-13. All Interoperable Authorities shall execute a perpetual, royalty free license agreement for use of the TxTag® name and logo and any other similar names and logos (i.e., TxTag®+ or TxTag®Plus).

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## **2.1.3 Account Requirements**

TBUS-14. Each Account agreement shall provide that use of a Transponder by a Patron at a Visited Authority shall constitute the Patron's acceptance of the interoperability terms in the Account agreement. The Account 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 Authority's facility and that license plate can be associated with the Patron's Account.

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TBUS-15. Patrons shall be able to use the Transponder issued to them by the Home Authority to make toll payments at all other Interoperable Authorities.

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TBUS-16. An Account may be associated with multiple transponders, but each transponder issued by an Authority shall be associated with a single Account.

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TBUS-17. Each Interoperable Authority is responsible for collecting Bad Debt for Violation Transactions on its facilities.

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TBUS-18. The Visited Authority and the Home Authority shall work cooperatively when Interoperable Transactions at a Visited Authority's facility are disputed and research must be undertaken to determine the validity of the Interoperable Transaction. The Authorities shall attempt to minimize inconvenience to the Patron in such circumstances.

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TBUS-19. If the Visited Authority is not willing to refund a disputed Interoperable Transaction, but the Home Authority waives the Interoperable Transaction, the Home Authority shall assume the expense associated with waiving the Interoperable Transaction.

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TBUS-20. The Home Authority shall notify the Visited Authority of Patron complaints regarding alleged overcharges or Duplicate Transactions on the Visited Authority's facilities.

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TBUS-21. The Visited Authority has the right to invalidate or reject a Transponder for use on the Visited Authority's facilities regardless of the status of the Transponder in the Tag Validation List. A Patron whose Transponder is so classified will not be authorized to use that Transponder to pay tolls on the Visited Authority's facilities.

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TBUS-22. The Visited Authority must advise the Home Authority promptly when a Transponder is invalidated or rejected for use on the Visited Authority's facilities.

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#### **2.1.4 Settlement and Reconciliation Requirements**

TBUS-23. The Home Authority shall pay the Visited Authorities for all Interoperable Transactions that successfully Post to the Home Authority's Patrons' Accounts.

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TBUS-24. The Visited Authority may transmit all Interoperable Transactions to the Home Authority for attempted posting,

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TBUS-25. The Home Authority shall Settle (i.e., remit toll payments to the Visited Authority for) Posted Interoperable Transactions a minimum of once every four weeks or more frequently as agreed upon between the two Authorities.

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TBUS-26. Settlement shall be made for the amount of the Posted Interoperable Transactions, net of Transaction Fees.

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TBUS-27. Each Authority shall reconcile its own Transactions via interoperability summary and detailed Transaction reports as prepared by the Home Authority. The reports shall detail Transactions contained within a selected date range by Posting and Transaction date.

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TBUS-28. Each Authority shall reconcile fund transfers with their respective Transactions, adjustments, and agreed Settlement.

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#### **2.1.4.1 Reconciliation Requirements**

TBUS-29. Each Home Authority is responsible for reconciling the available Statewide Interoperability Network reports against its own CSC reports for its Patrons on visited roads in order to initially determine the amount it believes it owes to each Visited Authority.

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*The procedures are:*

- (1) Using the Statewide Interoperability Network reports as the basis, the Home Authority shall report the value of all Interoperable Transactions sent from the Visited Authority that Posted to Patron accounts in its CSC during the time period being reconciled and settled.*
- (2) The Home Authority shall also report the value of any adjustments (negative or positive) its CSC Posted to Patron accounts during the time period being reconciled and settled for any Posted Interoperable Transaction from the Visited Authority.*
- (3) The Home Authority shall also report the value of the fee that the Visited Authority is expected to settle with the Home Authority*

TBUS-30. The Home Authority is responsible for declaring the amount it believes it owes to each Visited Authority. The declaration may be issued in the form of an email.

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*The declaration to each Visited Authority shall include the following information:*

- (1) the time period being reconciled and settled*
- (2) the amount owed to the Visited Authority detailed as follows:*
  - (a) Total amount of Interoperable Transactions Posted*
  - (b) Total amount of negative adjustments Posted (with reason for each type of adjustment)*
  - (c) Total amount of positive adjustments Posted (with reason for each type of adjustment)*
- (3) system generated summary documentation for any adjustments Posted*

TBUS-31. After receiving the Home Authority's declaration of amount owed, each Visited Authority is responsible for reviewing and confirming the amounts

reported. In order to come to an agreement on the amount the Home Authority owes the Visited Authority (“Settlement Amount”), the Home Authority shall provide the Visited Authority with any additional requested supporting documentation.

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TBUS-32. Reconciliation and Settlement will be performed for the full calendar month prior to the current month.

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#### **2.1.4.2 Issue Resolution**

TBUS-33. During the review of the Home Authority’s declaration, the Visited Authority may request that the Home Authority provide additional documentation supporting the Posted Transactions, rejected/unposted Transactions, and/or any adjustments made.

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*The documentation shall include:*

*Transaction’s Transponder number and/or license plate number*

*Transaction’s date and time*

*Transaction’s location*

*Transaction’s disposition/status explanation*

TBUS-34. After reaching agreement on the Settlement Amount, the Home Authority is responsible for issuing final declaration of the amount owed to the Visited Authority. The declaration may be issued in the form of an email.

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#### **2.1.4.3 Settlement**

TBUS-35. Each Visited Authority shall prepare and submit an invoice (see Attachment I) to each respective Home Authority based on the agreed Settlement Amounts.

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*The invoice shall contain the following information*

*(1) Visited Authority (Authority that prepared and submitted invoice)*

*(2) Home Authority (Authority being invoiced)*

*(3) Invoice Period*

*(4) Amounts owed for Interoperable Transactions:*

*(a) Total amount of Posted Transponder Transactions*

*(b) Total amount of Posted V-toll Transactions*

*(c) Total amount of Posted adjustments to Interoperable Transactions (by adjustment type) Amounts owed for Transaction Fees*

*(d) Total Invoice Amount Due*

TBUS-36. Invoices may be transmitted via email thereby constituting an electronic signature by the submitting Authority.

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TBUS-37. Monthly invoices shall be submitted by the 8th calendar day of the following month.

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TBUS-38. The invoiced amounts owed for Transaction Fees shall be based on the invoice period and the respective Interoperable Transactions including Transponder Transactions, V-toll Transactions and adjustments.

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TBUS-39. In order to facilitate the reconciliation, settlement and invoicing procedures, approved Transaction Fees (and approved modifications to Transaction Fees) shall not be invoiced for a partial invoice period.

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## **2.1.5 Data Interchange Requirements**

### **2.1.5.1 General**

TBUS-40. Each Interoperable Authority shall comply with the ICDs.

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TBUS-41. In the event that a receiving Authority does not respond with a processed status (e.g. Posted, rejected, etc.) to a transmitted Interoperable Transaction within 3 days, the sending Authority shall repeat the transmission of that Interoperable Transaction. The sending Authority shall continue to retransmit the non-status Interoperable Transaction every 3 days for a period of 60 days or until the Interoperable Transaction has been successfully acknowledged and assigned a status in accordance with TBUS -63.

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### **2.1.5.2 Tag Validation Lists**

TBUS-42. The Home Authority shall document the status of its interoperable Transponders in the Tag Validation List. The Tag Validation List shall denote the status of and associated license plate(s) for each interoperable Transponder. The status shall be as defined in the ICDs. Each interoperable Transponder shall have only one status in the Tag Validation List.

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TBUS-43. A Home Authority shall denote an interoperable Transponder as non-revenue in the Home Authority's Tag Validation List sent to a Visited Authority only if the Visited Authority agrees that that Transponder may be denoted as non-revenue.

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TBUS-44. Interoperable Authorities shall electronically exchange full Tag Validation Lists with other Interoperable Authorities on a regular schedule, at least once per day.

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TBUS-45. The Tag Validation List shall contain, at a minimum, the Home Authority identifier, Transponder identification number, license plate number and Transponder status for each Home Authority Transponder.

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TBUS-46. When changes occur to the Tag Validation List, Interoperable Authorities shall exchange Tag Validation List updates at least once per hour with other Interoperable Authorities, as specified in the ICDs.

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TBUS-47. Each Tag Validation List (full or partial) shall be acknowledged and put in use by the Visited Authority, as specified in the ICDs.

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TBUS-48. Tag Validation Lists (bulk and updates) shall be in use within 60 minutes from receipt from the Home Authority.

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TBUS-49. Each Authority shall maintain a history of Tag Validation Lists sent to and received from the other Interoperable Authorities for a minimum period of 60 days.

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### **2.1.5.3 Transactions**

TBUS-50. The Visited Authority shall send at least one Transaction Batch File to the Home Authority within each 24 hour period (unless no interoperable transactions were generated since the last sending).

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TBUS-51. Transaction records in the Transaction Batch File shall be as specified in the ICDs.

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TBUS-52. The Home Authority shall process the Visited Authority's Transaction Batch File within 24 hours of receipt.

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TBUS-53. The Home Authority shall Post Interoperable Transactions to Accounts indicating the Transaction date, time, location, vehicle classification and toll amount.

---

TBUS-54. Interoperable Transactions that are rejected by the Home Authority may be re-submitted by the Visited Authority once per day for 30 calendar days after the Interoperable Transaction was initially rejected by the Home Authority. It is the responsibility of the Visited Authority to resubmit rejected Interoperable Transactions.

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TBUS-55. A Home Authority may reject an Interoperable Transaction that (1) is created by a vehicle associated with an Invalid Transponder, (2) is a Duplicate Transaction, or (3) comprises a record that does not conform to the requirements of the ICDs. Rejected Interoperable Transactions processed by

the Home Authority shall be classified as “rejected” (or as a status as specified in the ICDs) and returned to the Visited Authority where the Interoperable Transaction occurred.

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TBUS-56. The Home Authority may elect to not process Interoperable Transactions submitted to the Home Authority by the Visited Authority 60 calendar days after the date and time of the Interoperable Transaction.

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TBUS-57. Visited Authorities shall filter out Duplicate Transactions prior to sending to the Home Authority. In the event the Home Authority does receive Duplicate Transaction(s), it shall not Post or remit payment to the Visited Authority for the Duplicate Transaction(s).

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TBUS-58. A Home Authority is not required to process any Transaction occurring on a facility that is not an Interoperable Authority.

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TBUS-59. If the status or type of an Interoperable Transaction created on a Visited Authority’s facility is modified prior to posting, the Visited Authority may submit the modified Transaction to the Home Authority for Posting as an Interoperable Transaction.

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## **2.1.6 Reporting Requirements**

TBUS-60. All Interoperable Authorities shall comply with established reporting requirements issued by the Statewide Interoperability Committee.

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TBUS-61. Any reconciliation adjustments made by the Home Authority as part of the Settlement of an Interoperable Transaction shall be itemized and reported to the Visited Authority in a format promulgated by the Statewide Interoperability Committee.

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## **2.1.7 Performance Requirements**

TBUS-62. Receipt of a Transaction Batch File shall be acknowledged by the Home Authority to the Visited Authority within 15 minutes after receipt.

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TBUS-63. The Home Authority shall report to the Visited Authority on the status of a processed Interoperable Transaction within 24 hours of receipt of the Transaction Batch File containing the Interoperable Transaction.

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TBUS-64. Violation Transactions created by vehicles associated with an Account must be sent to the Home Authority within 60 days of the date of the Violation Transaction. The Home Authority will attempt to Post the V toll for the

Violation Transaction to the Account. V-tolls that successfully Post will be remitted to the Visited Authority. Those that do not Post will be the responsibility of the Visited Authority. V-toll transactions sent after the 60th day will be handled on a case by case basis between the agencies involved.

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### **2.1.8 Violation Processing**

TBUS-65. Each Tag Validation List shall include the ability to include a second license plate with each transponder.

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TBUS-66. Each Visited Authority shall process Violation Transactions that occur on its facilities in accordance with TBUS-67.

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TBUS-67. Violation Transactions shall be validated against the Tag Validation List in order to cross-reference license plate information. Should a Violation Transaction be cross-referenced by license plate to a Transponder issued by a Home Authority, the Visited Authority at which the Violation Transaction occurred shall send the Violation Transaction to the Home Authority for processing as a V-toll.

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TBUS-68. The Home Authority shall provide to the Visited Authority upon request. Patron information to assist the Visited Authority in collection of tolls and fees payable with respect to Violation Transactions incurred by a Home Authority's Patron whose Account is associated with an Invalid Transponder. Account agreements shall include the Patron's authorization for the release of such information for such purpose.

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### **2.1.9 Security Requirements**

TBUS-69. Each Interoperable Authority shall comply with all security requirements document(s) agreed upon by the Statewide Interoperability Committee.

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#### **2.1.10 Fees**

TBUS-70. The Visited Authority shall pay the Home Authority a Base Transaction Fee for each Posted Interoperable Transaction (including V-tolls) created on a facility of the Visited Authority that uses a Transponder-Based Transaction System. The Base Transaction Fee is incurred for all Interoperable Transactions that Post to an Account regardless of Account type (credit card, cash or other). The amount of the Base Transaction Fee is indicated in Appendix A of the latest version of the Interoperability of Toll Collection

Systems Interlocal Agreement. The payment of Base Transaction Fees shall be accomplished through the Reconciliation process.

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TBUS-71. The Visited Authority shall pay the Home Authority a Non-transponder Based Transaction Fee for each Posted Interoperable Transaction (excluding V-tolls) created on a facility of the Visited Authority that uses a Non-transponder-Based Transaction System. The Non-transponder Based Transaction Fee is incurred for all Interoperable Transactions that Post to a Patron Account regardless of Account type (credit card, cash or other). The amount of the Non-transponder Based Transaction Fee is indicated in Appendix A of the latest version of the Interoperability of Toll Collection Systems Interlocal Agreement. The payment of Non-transponder Based Transaction Fees shall be accomplished through the Reconciliation process.

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TBUS-72. Transaction Fees shall be reviewed and determined bi-annually in accordance with procedures agreed upon by the members of the Statewide Interoperability Committee. The Transaction Fees so determined shall be adopted by and applicable to all Interoperable Authorities.

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TBUS-73. The requirements for payment of the Transaction Fees may be superseded by other agreements between two parties.

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TBUS-74. Agreements outside the parameters of this Business Requirements Document, between parties to the latest version of the Interoperability of Toll Collection Systems Interlocal Agreement, shall not negatively affect parties that are not involved in the external agreement.

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### **2.1.11 Customer Service/Dispute Resolution**

TBUS-75. The Home Authority is responsible for providing initial service and support to its own Patrons with respect to questions and/or disputes regarding Interoperable Transactions created on facilities of Visited Authorities. Visited Authorities may refer the Home Authority's Patrons to the Home Authority for resolution of such matters if the Visited Authority is unable to respond to or resolve the matter.

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TBUS-76. Communication protocols shall be established to support customer service.

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TBUS-77. The Visited Authority may request that the Home Authority make an adjustment to an Account with regard to an Interoperable Transaction created on the Visited Authority's facility. The request by the Visited Authority shall be made within 90 days of the original Interoperable Transaction. The Home Authority shall make the adjustment and shall reconcile that Transaction amount in the next financial Settlement to the Visited Authority.

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TBUS-78. In a situation when a Patron is not satisfied with a Visited Authority's resolution of an Interoperable Transaction dispute, the Patron's Home Authority may elect to credit the Interoperable Transaction to the Patron's Account and shall bear the cost of the credit associated with the disputed Transaction.

---

### **2.1.12 Testing Requirements**

TBUS-79. Each Authority shall undergo and pass the minimum set of agreed-upon test requirements promulgated by the Statewide Interoperability Committee to ensure that each Authority's equipment, systems, and other assets are capable of complying with these Interoperability Business Requirements and the ICDs.

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TBUS-80. Testing for Interoperability certification shall be at the expense of the Authority being certified as interoperable. Costs may include staff and consultant time.

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### **2.1.13 Amendment of Interoperability Business Requirements**

TBUS-81. These Interoperability Business Requirements may be amended from time to time in accordance with protocols established by the Statewide Interoperability Committee; commencing upon the effective date of each such amendment, each Interoperable Authority shall adhere to the Interoperability Business Requirements as so amended.

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### **2.1.14 Notification of Scheduled Maintenance and Modifications**

TBUS-82. Each Interoperable Authority shall strive to provide a minimum of two (2) weeks notification of tolling system changes that affect interoperability. This includes but is not limited to: tolling location additions and/or changes, toll policies or programs, toll equipment changes and toll rate changes.

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TBUS-83. Each Interoperable Authority in receipt of another Interoperable Authority's change notification shall implement or provide notification of intent to implement any required modification to their system's configuration within the two (2) week period provided.

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TBUS-84. Each Interoperable Authority shall strive to provide a minimum of two (2) weeks' notice of scheduled system maintenance to their respective system that

will impact another Interoperable Authority and/or the processing of transactions.

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## **~~ATTACHMENT A~~**

~~Interoperability Interface Control Document  
Customer Service Center  
Local Server to Interop Server File Transfer  
(P2P ICD-01)~~

## **~~ATTACHMENT B~~**

~~Interoperability Interface Control Document  
Customer Service Center  
Local Server to Interop Server  
Tag Status File  
(P2P ICD-02)~~

## **~~ATTACHMENT C~~**

~~Interoperability Interface Control Document  
Customer Service Center  
Financial Transactions File  
(P2P ICD-03)~~

## **ATTACHMENT D**

Interoperability Interface Control Document  
ICD-01: File Transfer

## **ATTACHMENT E**

Interoperability Interface Control Document  
ICD – 02: Tag Validation List

## **ATTACHMENT F**

Interoperability Interface Control Document  
ICD-03: Transaction File

## **ATTACHMENT G**

Interoperability Hub Project Glossary

## **ATTACHMENT H**

Interoperability Hub Data Security Guidelines

## **ATTACHMENT I**

Sample Invoice

## **ATTACHMENT J**

Interoperability Interface Control Document  
ICD-04: Web Services – Tag Lookup

## **ATTACHMENT K**

Interoperability Interface Control Document  
ICD-05: License Plate Validation List