DFW CONNECTOR PROJECT

INTERIM TOLLING SERVICES AGREEMENT

June 30, 2014

between

Texas Department of Transportation

And

North Texas Tollway Authority

DFW CONNECTOR
INTERIM TOLLING SERVICES AGREEMENT

THIS INTERIM TOLLING SERVICES AGREEMENT ("Agreement"), by and between the TEXAS DEPARTMENT OF TRANSPORTATION ("TxDOT") and the NORTH TEXAS TOLLWAY AUTHORITY ("NTTA"), is executed to be effective the 30th day of June 2014 ("Effective Date").

RECITALS:

A. TxDOT and NorthGate Constructors, JV ("NorthGate") entered into a Comprehensive Development Agreement pursuant to which NorthGate agreed to develop, design, construct, and, at TxDOT's sole option, maintain improvements along SH 114 in Tarrant County from SH 114L Business to east of International Parkway and SH 121 from FM 2499 to SH 360, including tolled managed lanes along SH 114 from SH 26 to east of International Parkway (such improvements being commonly referred to as the "DFW Connector Project" or the "Project").

B. Pursuant to Section 228.002(a) of the Texas Transportation Code, TxDOT is authorized to enter into an agreement with a public entity to permit the entity, independently or jointly with TxDOT, to operate a toll project.

C. Pursuant to Section 366.038 of the Texas Transportation Code (the "Statute"), NTTA shall provide, for reasonable compensation, tolling services for toll projects within NTTA's boundaries, including the Project, and this Agreement constitutes a "written agreement" for such tolling services as required under subsection (d) of the Statute.

D. TxDOT opened the toll lanes on the Project to traffic on April 1, 2014 and, in conjunction with the Regional Transportation Council, desires to begin toll collection from those lanes.

E. TxDOT and NTTA (each a "Party," together "Parties") are currently negotiating a Regional Tolling Services Agreement pursuant to which NTTA will provide certain toll collection, enforcement and interoperability functions and services, as well as customer service, for the Project and certain other TxDOT projects in NTTA's service region; however, the Parties have not finalized the Regional Tolling Services Agreement at this time.

F. The Parties are entering into this Agreement to provide for tolling services regarding the Project until they consummate the Regional Tolling Services Agreement.

G. Pursuant to a resolution dated June 18, 2014, the NTTA Board of Directors approved this Agreement and authorized the executive director of NTTA to execute and deliver this Agreement on behalf of NTTA.

H. Pursuant to Minute Order 113977 dated June 26, 2014, the Texas Transportation Commission approved this Agreement and authorized the executive director of TxDOT to execute and deliver this Agreement on behalf of TxDOT.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants and agreements set forth in this Agreement, TxDOT and NTTA agree as follows:

1. Definitions. Unless otherwise defined herein, terms with initial capital letters and abbreviations used in this Agreement have the definitions set forth in Exhibit A.

2. Engagement and Term.

(a) TxDOT hereby engages NTTA to provide the tolling services described in this Agreement for the Project from and after the Service Commencement Date and until the expiration or earlier termination of the Term (as defined herein), and NTTA hereby accepts such engagement. Pursuant to Section 228.002(b) of the Texas Transportation Code, the functions to be performed by NTTA under this Agreement will be governed by Chapter 366 of the Texas Transportation Code, subject to NTTA's designation of TxDOT to perform, for a specified time, certain responsibilities, as set forth in Sections 3(a), (c) and (d).

(b) The term ("Term") of this Agreement shall commence on the Effective Date and end on the earlier of (i) 11:59:59 pm on June 30, 2015 and (ii) the date this Agreement is terminated pursuant to Section 13.

3. TxDOT Rights and Responsibilities.

(a) Pursuant to Sections 228.002(a), 366.033(g) and 366.038 of the Texas Transportation Code, and except for the services to be performed by NTTA pursuant to this Agreement, NTTA designates and retains TxDOT to perform and be solely responsible for the tolling services as specified in this Agreement that otherwise would be provided by NTTA pursuant to Section 366.038(a) regarding Transactions (including Transponder Transactions and Video Transactions) occurring on the managed lanes of the Project, but only during the Interim Period. TxDOT will provide the tolling services described in this Agreement for the Project from and after (but not before) the Service Commencement Date (except for any service that due to the nature of the service must be performed by TxDOT prior to such Service Commencement Date) and until the expiration of the Interim Period. TxDOT shall perform such responsibilities in accordance with TxDOT's standard practices, procedures, protocols and business rules with which it performs such services and functions for its other facilities. TxDOT will be subject only to the laws and business rules governing TxDOT. TxDOT will have sole responsibility and authority for implementing any HOV declaration system using an online or other registration process that is applicable to the Project. TxDOT shall be responsible for all costs and claims in connection with its provision of such services.

(b) The Parties will cooperate and coordinate regarding publicity for commencement of such tolling.

(c) TxDOT will transmit to NTTA all NTTA Interoperable Transactions occurring during the Interim Period, and NTTA will process, submit for collection and remit to TxDOT amounts collected for such NTTA Interoperable Transactions, all in accordance with the Interoperability Agreement. During the Interim Period, TxDOT (x) will process all other Transactions, including Interoperable Transactions involving Transponder Issuers other than NTTA in accordance with the Interoperability Agreement and (y) will capture and accumulate the data evidencing each Video Transaction.

(d) TxDOT agrees to forebear from issuing any invoice for Video Transactions occurring during the Interim Period (except to TxTag holders for Transactions that convert to Video Transactions).

(e) If the Parties have not finalized, executed and delivered the Regional Tolling Services Agreement by the expiration of the Interim Period, then upon expiration of the Interim Period (i) TxDOT will transmit to NTTA Video Transaction data for the Video Transactions occurring during the Interim Period, in a format conforming with the ICD or otherwise agreed to by the Parties; (ii) in addition, TxDOT will turn over to NTTA responsibility for all Transaction processing for Transactions occurring after expiration of the Interim Period; and (iii) NTTA will commence providing all tolling services for the Project as described in Section 4(d) and will continue to provide such tolling services for the remainder of the Term.

(f) By entering into this Agreement for TxDOT's provision of certain tolling services during the Interim Period, NTTA does not waive or otherwise avoid any of its statutory responsibilities and obligations to provide tolling services for the Project as required under the Statute, but instead, consistent with its legal authority under the Statute and other applicable laws, allocates responsibility for the provision of tolling services for the Project as set forth in this Agreement and designates TxDOT to provide the indicated services upon the terms contained herein. TxDOT will be responsible for performing such services in accordance with laws applicable to TxDOT and TxDOT's business rules and practices, and TxDOT will be responsible for all costs and claims in connection with its provision of such services. TxDOT and NTTA mutually acknowledge that no provisions in this Agreement respecting TxDOT's and NTTA's performance of tolling services for the Project are intended or shall be construed to be an admission of, or otherwise affect interpretation of, rights and obligations regarding tolling services for the Project under Section 366.038 of the Texas Transportation Code, including in the event this Agreement expires under Section 2(b)(i) or terminates for any reason other than as set forth in Section 13.

(g) TxDOT will install, replace and maintain throughout the Term electronic toll collection ("ETC") equipment necessary to capture video images of and/or

transponder transaction data concerning vehicles passing through tolling stations on the Project. TxDOT at its expense will design, install, operate and maintain the ETC system ("ETCS") and interconnections with TxDOT's back office.

(h) Subject to Section 4(d), TxDOT will have sole right, responsibility and authority for setting, modifying, reducing and waiving, in accordance with TxDOT procedures and the laws and rules governing TxDOT, the amount of all base tolls, Video Transaction Toll Premiums, and fees (except interoperability fees) imposed on Users for both fixed and dynamic pricing schedules, and for implementing any HOV declaration system using an online or other registration process that is applicable to the Project.

(i) After the end of the Interim Period, TxDOT will be responsible for capturing data evidencing each Transponder Transaction and Video Transaction and transmitting the same to NTTA in accordance with the Interface Control Document (including transponder data, video images of license plates for all Transactions (which shall be readable video images for Video Transactions), video data and alpha-numeric or personalized information as indicated in the Tag Validation List) or any other communications protocols mutually agreed upon by the Parties. Without limiting the foregoing, TxDOT shall be responsible for (i) determining the applicable base toll and Video Transaction Toll Premium (if any) for each Transaction, and (ii) identifying all Transactions that qualify for a high occupancy vehicle discount and transmitting to NTTA the applicable discount for each NTTA Interoperable Transaction.

(j) Notwithstanding any contrary provision of this Agreement, TxDOT shall have the right to engage in marketing of transponders on the following terms and conditions.

(i) TxDOT shall have the right to engage in state-wide marketing of TxDOT-issued transponders without limitation or condition. For this purpose, "state-wide marketing" means marketing that does not specifically target the NTTA service area or a TxDOT project or projects therein. State-wide marketing on TxDOT's website may, but TxDOT is not required to, include links to websites of other Transponder Issuers.

(ii) TxDOT shall have the right to engage in marketing activities targeted at the NTTA service area, one or more TxDOT projects therein, and Users of the Project or of other TxDOT projects therein, provided that such marketing, to the extent it links or otherwise directs Users to obtain a transponder, will link or direct them exclusively to an NTTA-issued transponder; provided, however, that the foregoing shall not govern the activities of third parties in respect of TxDOT concession projects. Nothing in this Agreement is intended to restrict NTTA's ability to negotiate separate agreements with such third parties. TxDOT may highlight and publicize in such marketing that other transponders, including TxDOT-issued transponders, are fully interoperable on TxDOT projects in the NTTA service area. Further, TxDOT is under no obligation to convert or

encourage conversion of Users with TxDOT-issued transponders to NTTA-issued transponders. (iii) NTTA hereby grants to TxDOT, throughout the Term (but not thereafter unless otherwise agreed in writing), a fully paid up, royalty-free, worldwide, non-exclusive, irrevocable license to use, display, advertise and reproduce the NTTA trademark for NTTA's transponders (the orange disk with a "T" within the disk) (the "NTTA Mark"), for the sole purpose of marketing NTTA-issued transponders in all locations, forms and media, including roadway signs, print and electronic media, and web displays. TxDOT agrees to take no action that is inconsistent with NTTA's ownership of the NTTA Mark and that all use of the NTTA Mark shall inure to the benefit of NTTA. TxDOT agrees to use the NTTA Mark in a manner that is consistent with trademark laws and regulations of the United States, including application of the registration symbol ® to all signs and advertising materials bearing the mark within a reasonable period following written notification from NTTA of federal registration of the NTTA Mark. TxDOT will not use the NTTA Mark in a manner that it knows will degrade the value thereof.

(iv) No NTTA authorization or approval shall be required for any marketing campaigns, materials, content, displays or advertising by TxDOT, including that which includes material licensed to TxDOT as set forth above.

(v) The Parties will coordinate and cooperate regarding TxDOT marketing activities targeted at the NTTA service area, one or more TxDOT projects therein, or Users of the Project or of other TxDOT projects therein. TxDOT will keep NTTA currently informed of marketing activities so that NTTA can be prepared to handle inquiries and responses that may be generated by the marketing activities.

(vi) The Parties acknowledge that the shared objective of their respective marketing activities is to increase transponder penetration and thereby reduce the percentage of Transactions that are Video Transactions.

(k) TxDOT shall not object to NTTA's use of the "TxTag" trademark or "TEXpress" trademark for the purpose of marketing in support of the Project or other tolled TxDOT projects in the NTTA service area. NTTA acknowledges and understands that TxDOT is not the owner of either such trademark and that it may be necessary for NTTA to obtain a license to use them from their respective owners. NTTA will not use either such trademark in a manner that it knows will degrade the value thereof.

4. <u>NTTA Rights and Responsibilities.</u>

(a) NTTA shall maintain electronic funds transfer and clearing functions and capabilities to enable the settlement and payment to TxDOT of collected payments of tolls for NTTA Interoperable Transactions, and shall process for payment and remit to TxDOT collected payments for all NTTA Interoperable

Transactions received from TxDOT, in accordance with the Interoperability Agreement and as contemplated by Section 3(b).

(b) Upon expiration of the Interim Period TxDOT will transmit to NTTA Video Transaction data for the Video Transactions occurring during the Interim Period, in a format conforming with the ICD or otherwise agreed to by the Parties. NTTA will process and invoice such Video Transactions that qualify for invoicing under NTTA's practices, procedures and business rules within 40 days following receipt, and will provide all other tolling services regarding such Video Transactions in accordance with NTTA's invoicing practices, procedures and business rules.

(c) If the Interim Period has not expired by 11:59:59 pm of August 31, 2014, as such date may be extended solely due to TxDOT-Caused Delay in NTTA's commencement of full back office services for the Project, then NTTA shall compensate TxDOT for the degradation in the collectability of Video Transactions occurring during the Interim Period due to NTTA's delay (beyond the 40-day period referenced in Exhibit D) in invoicing such Video Transactions that are qualified for invoicing under NTTA's business rules. The Parties agree that the loss of toll revenue, including loss of Video Transaction Toll Premiums, from degradation in collectability due to such delay is difficult to measure, and therefore agree to liquidate the amount of compensation to TxDOT for such loss of toll revenue. Accordingly, the Parties shall determine the amount of such compensation by applying the terms set forth in Exhibit D, which the Parties agree is a reasonable method to liquidate such damages.

(d) From and after the end of the Interim Period until the end of the Term, NTTA will be responsible for providing all tolling services for the Project, which shall include back office, customer service, customer account maintenance, toll collection and enforcement, and transponder supply for the Project in accordance with NTTA's standard practices, procedures, protocols and business rules with which it performs such services and functions for its own facilities. Subject to Section 3(i), NTTA shall solely choose the transponders to offer to Users of the Project, which transponders shall be in accordance with applicable Texas statewide interoperability requirements. The scope of NTTA's services contemplated by this Section 4(d) is comparable to that set forth in Section 4 of the NTE TSA, to the extent technically feasible, except Sections 4(d), (i), (j), (l), (n), (o), (q) and (r).

(e) NTTA will have sole right, responsibility and authority for setting, modifying, reducing and waiving the amount of Incidental Charges imposed on Users who are NTTA account holders. Without limiting the requirements in the definition of Incidental Charges to charge reasonable fees, charges, penalties, interest or other amounts, NTTA shall determine and assess Incidental Charges consistent with NTTA's practices concerning customers of its own facilities. TxDOT agrees that NTTA will impose such Incidental Charges on Users who are NTTA account holders (subject to NTTA's right to waive or adjust payment thereof or portions

thereof from time to time in NTTA's sole discretion) and may collect and retain such Incidental Charges.

(f) If the Parties have not finalized, executed and delivered the Regional Tolling Services Agreement by the end of the Interim Period, then NTTA shall have the right, consistent with its practices in respect of its own facilities and on a non-discriminatory basis, to waive or reduce Incidental Charges and Video Transaction Toll Premiums for the sole purposes of (i) settling valid customer disputes and (ii) encouraging customers to obtain NTTA transponders and open related prepaid transponder-based customer accounts in exchange for the waiver or reduction. In the event of any such waiver or reduction, NTTA shall waive or reduce outstanding Incidental Charges on the applicable invoice(s) prior to or consistently (i.e. proportionately) with its waiver or reduction of the outstanding Video Transaction Toll Premiums; provided that NTTA shall not be obligated to (but may) include in a waiver or reduction those Incidental Charges that are listed in clauses (a), (b) and (c) of the definition of Incidental Charges.

(g) NTTA will not be responsible for enforcement of high occupancy vehicle rules and requirements. NTTA will not be responsible for habitual violator determinations or actions with respect to the Project during the Term, except to the extent provided otherwise in any separate agreement between TxDOT and NTTA related to "habitual violators" (as defined in Section 372.106 of the Texas Transportation Code).

(h) On or before the 15th day of each calendar month, beginning on October 15, 2014, NTTA will furnish to TxDOT the following reports for the applicable reporting period: (i) a tolling services agreement summary report showing the number of Transactions received and the Base Transaction Fees (including those under Section 8(b)(iv)), separately stated by Transponder Base Transaction Fees and Video Base Transaction Fees, and Variable Transaction Fees charged (with an indication of rejected and resubmitted transactions); (ii) an Interoperable Transaction hub reconciliation report showing Interoperable Transactions by location and date of posting and the Interoperable Transaction fees (for Interoperable Transaction involving Transponder Issuers other than NTTA); (iii) a TagStore report showing Transponder Transactions and Video Transactions that are posted to an NTTA customer account; (iv) a payment breakout report showing payments made by Users for Video Transactions; (v) a VPS (Violation Processing System) report or query results showing the number of Video Transactions that were invoiced during the applicable reporting period; and (vi) backup reports regarding the calculation of payments to be remitted to TxDOT for the applicable reporting period.

(i) On or before the 15th day of each calendar month, beginning the 15th day of the month after the month in which the Interim Period expires, NTTA will deposit into an account designated in writing by TxDOT an amount equal to all toll payments (including, for Video Transactions the Video Transaction Toll Premiums) received during the previous calendar month, less the aggregate

amount of all fees and Incidental Charges to which NTTA is entitled, plus or minus the amount of adjustments (i.e., adjustments in the nature of those described in Section 6(i) of the NTE TSA), and less the interoperability fees for Interoperable Transactions (for Interoperable Transactions involving Transponder Issuers other than NTTA) processed and paid by NTTA (which fees shall be the responsibility of TxDOT).

5. Meetings. The technical personnel of the Parties will meet on a regular basis and cooperate so that tolling services during the Term are delivered to the public in a cost-effective and efficient manner.

6. Negotiation of Regional Tolling Services Agreement.

(a) The Parties agree that (i) the Regional Tolling Services Agreement they are negotiating will be regional in nature and encompass TxDOT managed lanes projects that are located in NTTA's service area, are not financed with toll revenue debt, and are not the subject of a concession comprehensive development agreement, (ii) the Regional Tolling Services Agreement may modify the terms of this Agreement, and (iii) the Regional Tolling Services Agreement may or may not incorporate terms in other tolling service agreements between the Parties. The Parties will continue negotiations diligently and in good faith with a shared commitment and intention to (A) adopt an expedited negotiating schedule that prioritizes negotiating and agreeing on compensation and other material terms and (B) finalize, authorize and sign the Regional Tolling Services Agreement by August 31, 2014.

(b) If the Parties are unable to concur on the compensation or other material terms for the Regional Tolling Services Agreement by July 25, 2014 or any later date the Parties mutually approve, they will promptly engage a mutually approved experienced mediator to assist them with such negotiations. The Parties shall share equally the fees and expenses of the mediator. Such mediation shall be non-binding.

(c) None of the provisions of this Agreement regarding compensation to NTTA for Transactions occurring after the Interim Period will have any precedential effect or bearing on negotiation of the terms and conditions for compensation under the Regional Tolling Services Agreement. None of such provisions of this Agreement will be evidence of any acquiescence to, or acceptance of, any particular terms and conditions for compensation under the Regional Tolling Services Agreement. Neither Party shall disclose such provisions of this Agreement to any mediator for the Regional Tolling Services Agreement negotiations.

7. Project Revenues.

(a) Except for the fees and charges described in Section 8, TxDOT owns and is entitled to retain and keep all revenues from the Project, including tolls, Video

Transaction Toll Premiums, and any other fees, charges, interest and monies owed by Users or from any source whatsoever in connection with the Project.

(b) From and after the end of the Interim Period, NTTA will be a collecting agent acting on behalf of TxDOT with respect to amounts owing or remitted by the applicable Users and owed to and not yet paid to TxDOT. Prior to the end of the Interim Period, NTTA and TxDOT shall enter into, and NTTA shall cause Wells Fargo Bank, N.A. (or its successor under the certain Master Custodial Account Agreement dated as of April 1, 2011 between NTTA and Wells Fargo Bank, N.A.) to enter into, a Joinder Agreement for the Project in the form of Exhibit A attached to such Master Custodial Account Agreement. NTTA will at all times abide by the terms and provisions of such Master Custodial Account Agreement and Joinder Agreement (as the same relate to or affect each of the Projects), to assure the protection and proper disposition of all amounts owing or remitted by the applicable Users.

8. Compensation for Services.

(a) In consideration for its services hereunder during the Interim Period, NTTA shall be entitled to interoperable fees for NTTA Interoperable Transactions processed by NTTA under this Agreement. TxDOT shall be responsible for all interoperable fees owed to NTTA for NTTA Interoperable Transactions, the amount of which shall be calculated and paid in accordance with the Interoperability Agreement.

(b) If the Parties have not finalized, executed and delivered the Regional Tolling Services Agreement by the expiration of the Interim Period, such that NTTA shall continue to perform services under this Agreement after expiration of the Interim Period, then NTTA's compensation for the services it performs hereunder after expiration of the Interim Period and for the remainder of the Term shall be as follows, provided that all such fees shall be retroactively adjusted to the same compensation terms and conditions as ultimately agreed to in the Regional Tolling Services Agreement.

(i) Subject to clause (iii) below, NTTA shall be entitled to a Base Transaction Fee equal to (A) $0.04 for each Transponder Transaction (a "Transponder Base Transaction Fee"), (B) $0.28 for each Video Transaction occurring prior to January 1, 2015 and (C) $0.14 for each Video Transaction occurring on or after January 1, 2015 (each such fee under clauses (B) and (C) being a "Video Base Transaction Fee");

(ii) Subject to clause (iii) below, NTTA shall be entitled to a Variable Transaction Fee for each Transaction (other than Interoperable Transactions) equal to 2% of the applicable toll amount collected (inclusive of Video Transaction Toll Premiums but exclusive of Incidental Charges).

(iii) If a Transaction that was initially classified as a Transponder Transaction is reclassified as a Video Transaction, NTTA shall make an adjustment to the Base Transaction Fee to charge the Video Base Transaction Fee instead (but not both). If a Transaction that is initially classified as a Video Transaction is collected by NTTA or reclassified as a Transponder Transaction by NTTA before NTTA's issuance of a billing statement therefor, then NTTA shall make an adjustment to charge instead the Transponder Base Transaction Fee (but not both) (and for avoidance of doubt, if a Transaction that was originally classified as a Video Transaction is collected by NTTA or reclassified as a Transponder Transaction by NTTA after NTTA's the issuance of a billing statement therefor, NTTA still shall be entitled to charge the Video Base Transaction Fee (but not both) notwithstanding such collection or reclassification).

(iv) If, with respect to its transmittal of accumulated Video Transactions pursuant to Section 3(d) or its transmittal of Transaction data hereunder after the expiration of the Interim Period, TxDOT should transmit to NTTA transaction data that does not comply with the first sentence of Section 3(h), NTTA may reject such transaction but will be entitled to receive a fee equal to the Transponder Base Transaction Fee in connection with its receipt and review thereof. Such fee will be due and payable, however, only if NTTA delivers to TxDOT at its back office a notice or list (which may be in a disposition file delivered to TxDOT pursuant to NTTA's business rules) of the non-complying transaction. For the avoidance of doubt, if TxDOT transmits any such transaction to NTTA and NTTA rejects such transaction outright because it does not contain the data required hereunder, then NTTA shall not be entitled to a fee in respect of such transaction. If TxDOT re-submits to NTTA appropriate transaction data in accordance with the ICD for the same Transaction and identifies (by transaction number) such data as being for a re-submitted Transaction after NTTA's rejection and return to TxDOT of the non-complying transaction, then NTTA will process such re-submitted transaction data and pursue collection of the subject Transaction without being entitled to receive a duplicate Transponder Base Transaction Fee therefor. If, however, the resubmitted transaction is a Video Transaction, then NTTA shall be entitled to charge the Video Base Transaction Fee instead of (but not in addition to) the Transponder Base Transaction Fee.

(c) In addition to the interoperable and other fees provided for above, during the Term NTTA shall be entitled to impose on, collect and retain from Users who are NTTA transponder account holders Incidental Charges consistent with NTTA's practices concerning customers of its own facilities.

(d) A Delinquent Payment Deduction will be made in respect of any toll owing from NTTA to TxDOT that is not paid when due under the terms of this Agreement or, with respect to NTTA Interoperable Transaction, when due under the terms of the Interoperability Agreement. The Delinquent Payment Deduction will be payable as a monthly reduction of the fees payable to NTTA pursuant to this Section 8. The Delinquent Payment Deduction will be determined in accordance with the formula set forth on Exhibit B.

(e) The compensation payable to NTTA pursuant to this Section 8 is inclusive of all costs, whether direct or indirect, incurred by NTTA in connection with the services it is providing under this Agreement.

9. Confidential Information.

(a) The Parties will maintain the Customer Confidential Information as confidential information and in compliance with applicable laws concerning privacy practices and otherwise consistent with the policies and practices that each of them follows with respect to the confidential information of customers of its own facilities.

(b) The Parties shall comply with all applicable laws, provisions and interoperability and compatibility standards, requirements and protocols limiting, restricting or pertaining to collection, use, confidentiality, privacy, handling, retention, reporting, disclosure or dissemination of Customer Confidential Information. The Parties' obligations relating to Customer Confidential Information will survive the expiration or termination of this Agreement.

10. Interoperability Compliance. The Parties will comply with the Interoperability Agreement and related interoperability protocols and standards throughout the Term.

11. Records and Audit Rights.

(a) The Parties will maintain, consistent with their respective practices regarding customers of their own facilities, accurate and complete books and records, including electronic data, of or relating to (i) all Transactions, (ii) all data, information and calculations relevant to the interoperable and other fees that NTTA charges to TxDOT or Incidental Charges that NTTA charges to Users in connection with the services provided by NTTA under this Agreement, and (iii) the Parties' performance of this Agreement.

(b) Each Party will make the foregoing books and records relating to the Project available for audit and inspection by the other Party and/or the other Party's designees, at the location where such books and records are customarily maintained, at all times during normal business hours, without charge. Each Party will provide to the other Party and its designee copies of such records upon request and at the other Party's expense. A Party may conduct any such inspection upon five days' prior written notice. Without limiting the foregoing, a Party will afford the other Party and its designees access during normal business hours to such Party's customer service center and other offices and operations buildings for the purpose of carrying out any such audit and inspection.

(c) Each Party will retain the books and records described in this Section 11 for a minimum of five years after the date the record or document is generated. Notwithstanding the foregoing, all records which relate to claims and disputes between the Parties, or any known third party claims or actions against NTTA or

TxDOT, will be retained and made available until any later date that such claims or disputes and actions are finally resolved.

(d) The provisions of this Section 11 will survive the expiration or termination of this Agreement.

12. Dispute Resolution Procedures. Any disputes between the Parties concerning this Agreement that cannot be resolved at the staff level will be referred to NTTA's Executive Director or his/her designee and TxDOT's Executive Director or his/her designee to resolve. If a dispute is not resolved, the Parties agree to use the procedures in the next following sentences. The Party making a claim may advance it in accordance with the statutes and administrative rules applicable on the Effective Date, including all statutory provisions that effect a waiver, in whole or part, of sovereign immunity to suit for the purpose of adjudicating a claim for a breach under this Agreement, including Tex. Loc. Gov't. Code Chapter 271, Subchapter I. The Parties agree to use any alternative dispute resolution procedure that is a part of the applicable claim procedure. The Parties will satisfy the requirement for alternative dispute resolution by participating in non-binding mediation, unless otherwise agreed to by the Parties.

13. Termination.

(a) Termination by Reason of Executing Regional Tolling Services Agreement. This Agreement shall automatically terminate and be replaced by the Regional Tolling Services Agreement upon the effective date of transfer of the collection and enforcement services and customer service from TxDOT to NTTA for the Project under the Regional Tolling Services Agreement; provided, however, that this Agreement shall survive for purposes of determining the Parties' respective rights and obligations for matters occurring or arising during the Term hereof (for clarity, this proviso does not alter the retroactive adjustment of fees as provided in Section 8(b)).

(b) Termination Related to Statute. Either Party shall have the right to terminate this Agreement without cause upon the first to occur of any of the following:

(i) The Statute ceases to have legal effect or is amended such that (A) in the case of a termination right in favor of TxDOT, the Statute no longer obligates TxDOT to utilize NTTA to provide customer service, toll collection or enforcement services for the Project and no other Law then in effect obligates TxDOT to utilize NTTA to provide customer service, toll collection or enforcement services for the Project; and (B) in the case of a termination right in favor of NTTA, the Statute no longer obligates NTTA to provide customer service, toll collection or enforcement services for the Project, and no other law then in effect obligates NTTA to provide customer service, toll collection or enforcement services for the Project;

(ii) A final, non-appealable decision is entered by a court holding that (A) in the case of a termination right in favor of TxDOT, (1) the Statute does not impose obligations on the owner of a project within the boundaries described in the Statute to utilize an authority to provide customer service, toll collection or enforcement services, or (2) this Agreement may be terminated and a provider other than NTTA may be engaged to provide customer service, toll collection and enforcement services for the Project; and (B) in the case of a termination right in favor of NTTA, (1) the Statute does not impose obligations on NTTA to provide customer service, toll collection or enforcement services for the Project, or (2) this Agreement may be terminated and a provider other than NTTA may be engaged to provide customer service, toll collection and enforcement services for the Project; or

(iii) NTTA's Board of Directors shall have adopted a rule, policy or directive adopting, approving, or establishing a practice incorporating its determination that (A) in the case of a termination right in favor of TxDOT, (1) the Statute does not impose obligations on the owner of a project within the boundaries described in the Statute to utilize NTTA to provide customer service, toll collection or enforcement services for the Project, or (2) this Agreement may be terminated and a provider other than NTTA may provide customer service, toll collection and enforcement services for the Project and (B) in the case of a termination right in favor of NTTA, (1) the Statute does not impose obligations on NTTA to provide customer service, toll collection or enforcement services for the Project, or (2) this Agreement may be terminated and a provider other than NTTA may be engaged to provide customer service, toll collection and enforcement services for the Project.

(c) No Effect on Interoperability. Termination of this Agreement, regardless of the reason, shall have no effect whatsoever on continuation and enforcement of the Interoperability Agreement.

14. Transition upon Expiration or Termination.

(a) TxDOT and NTTA will, at their cost, cooperate with each other in order to plan, conduct and complete, on or prior to August 31, 2014, or other mutually approved date, all work necessary for interconnection and interoperability of the ETCS with NTTA's back office and CSC Host, including demonstration and performance testing of NTTA's back office toll collection system according to mutually approved testing and commissioning plans and schedule, so that NTTA will be in a position and ready to provide all required tolling services under the Regional Tolling Services Agreement, or under this Agreement if there is no Regional Tolling Services Agreement in effect by August 31, 2014, or other mutually approved date.

(b) The Parties will prepare, in consultation with each other, a critical path schedule for carrying out such work. Unless otherwise agreed in writing by NTTA and TxDOT, such critical path schedule will provide for the Parties to commence

conducting such demonstration and performance testing by August 1, 2014 or other mutually approved date, with a view to the Parties' identification and correction of any problems no later than August 31, 2014 or other mutually approved date. Such schedule will be subject to mutual approval, which approvals will not be unreasonably withheld or delayed. The Parties will adhere to such schedule in all material respects, subject to delays attributable to issues identified during demonstration and performance testing.

(c) NTTA will use all reasonable efforts to enable such transfer in a manner that does not materially interfere with or disrupt TxDOT's operations regarding its other projects. TxDOT will reciprocate in the same manner to avoid materially interfering with or disrupting NTTA's operations regarding its other projects.

(d) For clarity, nothing contained in Sections 14(a) and (b) countermands those provisions in this Agreement by which the August 31, 2014 date may be extended solely due to TxDOT-Caused Delay.

15. Successors and Assigns. Neither TxDOT nor NTTA may assign, lease, sublet, or transfer its interest in this Agreement without the prior written consent of the other Party to this Agreement unless otherwise provided by law, provided that the foregoing shall not restrain either Party's ability to contract with third parties to provide the tolling services such Party has agreed to provide hereunder. Subject to the preceding sentence, this Agreement will bind, and will be for the sole and exclusive benefit of, the respective Parties and their legal successors, including without limitation any successor public agency to either Party.

16. No Third Party Beneficiaries. Nothing in this Agreement or in any approval subsequently provided by either Party hereto shall be construed as conferring any benefits, rights, remedies, or claims to any Person not a party to this Agreement, including, without limitation, the public in general.

17. Severability. If any provision of this Agreement, or the application thereof to any Person or circumstance, is rendered or declared illegal for any reason and is invalid or unenforceable, the remainder of this Agreement and the application of such provision to other Persons or circumstances will not be affected thereby but shall be enforced to the greatest extent permitted by applicable law.

18. Written Amendments. Any changes in the character, agreement, terms and/or responsibilities of the Parties hereto must be enacted through a written amendment. No amendment to this Agreement will be of any effect unless in writing and executed by the Parties.

19. Notices. All notices to either Party by the other required under this Agreement must be delivered personally, sent by facsimile transmission, or sent by certified or registered U.S. Mail, postage prepaid, addressed to such Party at the following respective addresses:

If to NTTA:

Delivered personally:

North Texas Tollway Authority
5900 W. Plano Parkway, Suite 100
Plano, Texas 75093
Attention: Executive Director

Delivered by mail:

North Texas Tollway Authority
P.O. Box 260729
Plano, Texas 75026
Attention: Executive Director

If to TxDOT:

Edward Pensock, Jr., P.E.
Texas Department of Transportation
Strategic Projects Division
125 East 11th Street
Austin, Texas 78701

With copies to:

Texas Department of Transportation
Office of General Counsel
125 East 11th Street
Austin, Texas 78701
Attention: General Counsel

All personally delivered notices will be deemed given on the date so delivered. Notice by facsimile will be deemed given on the date indicated by written confirmation of transmission to, in the case of NTTA, (214) 528-4826 or, in the case of TxDOT, (512) 936-0970 (for the Strategic Projects Division), and (512) 475-3070 (for the Office of General Counsel). All notices mailed by certified or registered mail will be deemed given three days after being deposited in the mail. Either party hereto may change the above address or facsimile number by sending written notice of such change to the other in the manner provided for above.

20. No Personal Liability. All covenants and obligations of the Parties under this Agreement will be deemed to be valid covenants and obligations of said entities, and no officer, director, or employee of TxDOT or NTTA will have any personal obligations or liability hereunder.

21. Relationship of the Parties. Nothing in this Agreement shall be deemed or construed by the Parties, or by any third party, as creating the relationship of principal and agent between the Parties, or any joint enterprise.

22. Exhibits. Exhibits referred to in this Agreement and attached hereto are incorporated herein in full by this reference as if each of such exhibits were set forth in the body of this Agreement and duly executed by the Parties.

23. Authorization. Each Party to this Agreement represents to the other that it is fully authorized to enter into this Agreement and to perform its obligations hereunder and that no waiver, consent, approval, or authorization from any third party is required to be obtained or made in connection with the execution, delivery, or performance of this Agreement in accordance with its terms, other than those that have been obtained.

24. Interpretation. No provision of this Agreement shall be construed against or interpreted to the disadvantage of any Party by any court or other governmental or judicial authority by reason of such Party having or being deemed to have drafted, prepared, structured, or dictated such provision. The use of the word "will" in this Agreement connotes a contractual right, covenant or obligation, as applicable. Wherever the word "including" is used, it is deemed to mean "including, without limitation,".

25. Governing Law. The laws of the State of Texas shall govern this Agreement.

26. Counterparts. This Agreement may be executed in one or more counterparts, all of which together will be deemed an original.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the Parties have executed this Agreement on the dates shown below, effective on the Effective Date.

NORTH TEXAS TOLLWAY AUTHORITY

By: _____
Gerald Carrigan,
Executive Director

Date: June 26, 2014

TEXAS DEPARTMENT OF TRANSPORTATION

By: _____
LtGen J.F. Weber, USMC (Ret)
Executive Director

Date: 6/30/2014

EXHIBIT A
DEFINITIONS

As used in this Agreement, the following terms have the respective meanings indicated:

"Base Transaction Fee" has the meaning set forth in Section 8(b)(i).

"Business Day" means a day on which NTTA is officially open for business. Any reference in this Agreement to a day or days that is not specifically stated as a "Business Day" or "Business Days" means a calendar day or calendar days.

"Customer Confidential Information" means the toll account and travel records of Users, including all personal information such as names, addresses, Social Security numbers, other customer identification numbers, e-mail addresses, telephone numbers, financial profiles, credit card information, driver's license numbers, medical data, and other customer specific information that identifies an individual who is a customer of the Project or a Transponder Issuer and that is exempt from disclosure to the public or other unauthorized Persons under applicable law.

"Delinquent Payment Deduction" means the amount determined pursuant to Section 8(d).

"Effective Date" has the meaning set forth in the introductory paragraph of this Agreement.

"Electronic Toll Collection System" or "ETCS" means the electronic toll collection system, including its components, systems and subsystems), the hardware and physical infrastructure, and the software provided by TxDOT.

"Incidental Charges" means:

(a) Reasonable amounts for the purchase or rental of NTTA transponders or other electronic toll devices;

(b) Reasonable, refundable security deposits for the distribution of NTTA transponders or other electronic toll devices;

(c) Reasonable administrative fees of NTTA for account establishment and maintenance and account statements;

(d) Reasonable fees, penalties and interest for toll violations, including costs of collection; and

(e) Other reasonable fees and charges for customary incidental services to Users for whom NTTA manages electronic tolling accounts (on the same basis as uniformly charged with respect to NTTA's own facilities).

For clarity, Video Transaction Toll Premiums are not an Incidental Charge.

"Interface Control Document" or "ICD" means the document attached as Exhibit C to this Agreement, as such document may be revised or updated by from time to time with the mutual approval of the Parties, which approval will not be unreasonably withheld or delayed.

"Interim Period" means the period from and after the Service Commencement Date until the later of (i) 11:59:59 pm on August 31, 2014 or (ii) 11:59:59 pm of the day immediately preceding the date on which NTTA commences provision of full back office and customer services for the Project under Section 4(b), having substantially completed all work, including demonstration and performance testing, required under Section 14.

"Interoperability Agreement" means and includes, collectively, the Memorandum of Understanding (Interoperability) by and among TxDOT, NTTA, and Harris County dated November 23, 2004, the certain Interlocal Agreement for Interoperability of Toll Collection Systems by and among TxDOT, NTTA, Central Texas Regional Mobility Authority and Harris County dated December 13, 2007, the version of the Interoperability Business Requirements most recently approved and adopted prior to the Effective Date, all other written protocols and standards regarding interoperability approved and adopted prior to the Effective Date pursuant to the foregoing Interlocal Agreement, and all amendments and supplements to the foregoing approved and adopted during the Term.

"Interoperable Transaction" means (a) during the Interim Period, Transponder Transactions involving Transponder Issuers other than TxDOT, including NTTA Interoperable Transactions, and (b) after the Interim Period, Transponder Transactions involving Transponder Issuers other than NTTA and TxDOT.

"LIBOR" means the offered rate per annum (rounded up to the nearest one one-thousandth of one percent (0.001%)) for deposits in U.S. dollars for a one-month period which appears on the Telerate Page 3750 at approximately 11:00 a.m., London time, on the date of determination, or if such date is not a date on which dealings in U.S. dollars are transacted in the London interbank market, then on the next preceding day on which such dealings were transacted in such market.

"NTE TSA" means that certain Tolling Services Agreement between the Parties dated September 19, 2013 relating to Segments 3A and 3B of the North Tarrant Express Project.

"NTTA Interoperable Transaction" means a Transponder Transaction occurring on the Project during the Interim Period involving a vehicle equipped with a transponder issued by NTTA.

"Party" means TxDOT or NTTA, as the context may require, and "Parties" means TxDOT and NTTA, collectively.

"Person" includes an individual, corporation, partnership, limited liability company, trust, unincorporated organization, and any other entity and any government and governmental agency or subdivision, as the context requires.

"Regional Tolling Services Agreement" means a final, executed tolling services agreement between the Parties, pursuant to which NTTA will provide toll collection,

enforcement and interoperability functions and services, as well as customer service, for the Project and certain other TxDOT projects in NTTA's service region, and be paid reasonable compensation for such services.

"Service Commencement Date" means June 30, 2014 or such later date on which TxDOT commences the imposition of tolls on the vehicles using the managed lanes of the Project.

"Term" has the meaning set forth in Section 2(b).

"Transactions" means collectively, Transponder Transactions and Video Transactions. "Transaction" means a Transponder Transaction or a Video Transaction.

"Transponder Base Transaction Fee" has the meaning set forth in Section 8(b)(i).

"Transponder Issuer" means any Person, including each of NTTA and TxDOT, who or which (a) issues transponders for mounting in vehicles and transacting Transponder Transactions on any tolled roadway in the State of Texas and (b) participates with NTTA or TxDOT in interoperability protocols, agreements and arrangements.

"Transponder Transaction" means each electronic record of a toll, which may include video images and video data that together constitute one toll payable from a customer, that are properly transmitted to TxDOT's back office respecting a vehicle that (a) passes through a toll lane on the Project, (b) is equipped with a transponder issued by a Transponder Issuer, and (c) has a sufficient account balance at the time of posting or re-posting to pay in full the applicable toll rate.

TxDOT-Caused Delay" means the period of delay to NTTA activities on the critical path shown in the schedule approved by the Parties pursuant to Section 14(b) that is directly attributable to a failure of TxDOT to undertake or complete for any reason necessary action identified in, and in accordance with, such schedule.

"User(s)" means the registered owner of a vehicle traveling on the Project or any portion thereof.

"Variable Transaction Fee" has the meaning set forth in Section 8(b)(ii).

"Video Base Transaction Fee" has the meaning set forth in Section 8(b)(i).

"Video Transaction" means each electronic record of a toll and set of contemporaneous video images of license plates and other video data respecting (a) a vehicle that passes through a toll lane on the Project and is not equipped with a working transponder issued by a Transponder Issuer; (b) a vehicle that passes through a toll lane on the Project and is equipped with a transponder that is (i) issued by a Transponder Issuer and (ii) associated with an account not closed at the time of transmission but having an insufficient account balance at the times of debit and re-debits to pay in full the applicable Transponder Transaction toll rate; or (c) a vehicle that passes through a toll lane on the Project and is equipped with a transponder that is issued by a Transponder Issuer other than TxDOT but the Transponder Issuer for any reason fails to transmit

to TxDOT the full toll for the Transaction by the deadline by which it is obligated to do so under its interoperability protocols and agreements with TxDOT.

"Video Transaction Toll Premium" means that part of the toll, if any, over and above the base toll amount, charged by TxDOT to Users in respect of Video Transactions or other transactions consistent with TxDOT's practices in respect of its other facilities and transactions (which amount is exclusive of Incidental Charges).

EXHIBIT B

DELINQUENT PAYMENT DEDUCTION FORMULA

Delinquent Payment Deduction Formula

The Delinquent Payment Deduction will be determined in accordance with the following formula:

Delinquent Payment Deduction *n,m* (Year *n* = 1 to ___ and Month *m* = 1 to 12)	=	∑Daily Delinquent Payment Deduction *n,m* x Duration / 365 x Interest Rate *n,m*
Where:		
Daily Delinquent Payment Deduction *n,m*	=	Total payments due TxDOT on each day during Month *m* of Year *n* that are not timely paid by NTTA when due under Section 4(i)
Duration	=	The number of calendar days from the date a payment under Section 4(i) is due until the date such payment is made to TxDOT
Interest Rate *n,m*	=	Interest at a rate equal to the LIBOR in effect on the first day of Month *m* in Year *n* plus 400 basis points

EXHIBIT C

INTERFACE CONTROL DOCUMENT

[Attach]

Service Provider
to
Subscriber
Interface Control Document

Version: 1.14a
Revision Date: July 2014

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Appendices

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Appendix C	Unusual Occurrence Codes
Appendix D	Lane Modes
Appendix E	Vehicle Class
Appendix F	Transponder and License Plate Status

1. Document Revision History

Table 1 Document Revision History

Version	Date	Summary of Revisions
0.1	12-15-2011	Initial draft
0.2	12-29-2011	ICD workbook detail added
0.3	12-29-2011	Comments and edits from conference call
0.4	01-03-2012	Final review edits prior to TX Authority distribution.
0.5 - 0.6	01-27-2012	Final edits prior to Subscriber distribution.
0.7	01-27-2012	Added final transaction and disposition examples to match the fields prior to Subscriber distribution.
0.8	04-26-2012 – 05-23-2012	Modifications in response to NTE and LBJ comments submitted to NTTA 4/19/2012. And SH130 comments submitted to TOD on 5/7/2012.
0.9	06-25-2012	Modifications based on additional comments from SH 130. Modifications based on recommendations from NTTA: **5.3.3.2 Data Record Format – Transactions File** Transaction Type – Record Type – Add "D-Debit Adjustment" **5.5.3.2 Data Record Format – Disposition File** Format the following fields to 4 decimal places: 1. Base Transaction Fee 2. Variable Transaction Fee 3. Interop Fee 4. Misc 1 Fee 5. Misc 2 Fee 6. Net Payment Amount **Appendix B: Disposition Reasons** Add "12 – Adjustment Credit cannot be processed" Add "13 – Adjustment Debit cannot be processed."
0.10	7-6-12	Added field sizes and adjustment code descriptions. Added version to file headings.
0.11	7-16-2012	Updated after receiving comments from ETCC (NTTA's integrator).
1.0	7-20-2012	Made final revisions to Version 1.0.
1.1	8-6-2012	Increased size of discount type fields.
1.2	8-29-2012	Added to the image file name to include milliseconds (per the transaction date/time. [<Milliseconds> = ffffff (6 Char)]

Version	Date	Summary of Revisions
1.3	April 2013	Increase the size of the image file name in the Transaction file.
1.4	May 2013	The Transaction File Control Number needs to be a character instead of numeric so that the preceding zeros do not get truncated. Updated section 5.3.3.1.
1.5	May 2013	Discounted Transponder Toll Amount is not a required field.
1.6	June 2013	Corrected field sizes. Added to the comment and changed required fields for entry fields in the transaction record. Made corrections after TOD's review.
1.7	June 2013	Updated Appendix A so that the values are 3 digits. Changed the size from 8 to 9 for those fields indicating a size of (-999.9999)
1.8	June 2013	Increased the size of the Transponder Validation List File Name and License Plate Validation List File Name fields to 21.
1.9	July 2013	Increase the size of the Image File Name from 34 to 36.
1.10	July 2013	Increased plaza and lane field sizes in the image file name to be consistent. Increased the size of the image file name.
1.11	July 2013	Increased the license plate field size from 10 to 15 to conform to the IOPHub ICD.
1.12	September 2013	Increased the Disposition License Plate field size from 10 to 15 to conform to the IOPHub ICD.
1.13	October 2013	Added processing status codes to the ACK file: "N" File Name invalid "X" Duplicate File Name "T" Date Time Format invalid "H" Missing Header Information (If one of the value or header is missing) "R" File Control Number invalid "O" Other Added LBJ's vehicle classifications to the vehicle classification matrix (Appendix E).
1.13a	November 2013	Made updates based on recommendations from TransCore. Since none of the data elements have been changed in this edit, the version is not increased. Version 1.13 should still be used in the data records. Revised shape-based vehicle classes based on direction from LBJ.
1.13b	December 2013	Removed LBJ's vehicle classifications. Service Provider vehicle classifications will be maintained in the business rules for each Service Provider.
1.14	February 2014	Added OCR Engine '04' for a Local OCR. Added Disposition Codes and Disposition Reason Codes to expand the ICD for DFW Connector and NTE 3A/3B.
1.14a	June 2014	Updated Appendix A. ~~Changed the maximum number of digits for "Lane" from 3 to 5.~~

2. Document Acronyms, Terms and Definitions

Table 2 Document Acronyms, Terms and Definitions

Acronym	Acronym definition
ACK	Acknowledgement
DSP	Disposition
ETC	Electronic Toll Collection
IAG	Inter-Agency Group
ICD	Interface Control Document
ILA	Interlocal Agreement
Interoperability HUB (IOPHub)	The technical and procedural implementation of the Interoperability Interlocal Agreement (IOP ILA).
LVL	License Plate Validation List
NACK	Not Acknowledged
NTTA	North Texas Tollway Authority
OCR	Optical Character Recognition
RMA	Regional Mobility Authority
ROI	Region of Interest
SFTP	Secure File Transfer Protocol
Service Provider	An entity that operates a back office system for toll account management and transaction processing
Service Provider's CSC Host	The central computer system of the Service Provider that supports customer service center account management and transaction processing functions.
Subscriber	Any entity who or which (a) manages and operates a tolled facility and (b) participates with a Service Provider to process transactions.
TVL	Transponder Validation List
TXDOT	Texas Department of Transportation
TXN	Transaction
Transponder Issuer	Any entity, who or which (a) issues transponders for mounting in vehicles and transacting Transponder Transactions on any tolled facility and (b) participates with parties to the Team-TX ILA in interoperability protocols, agreements and arrangements.
V-Toll	A transaction associated with a customer's transponder account due to the transponder, which is in good standing, not being read in a toll lane.

3. Introduction – Subsystem Interface Controls

This document is the Interface Control Document (ICD) that defines the data exchange interface between a Subscriber and a Service Provider.

******** DISCLAIMER ********

This document is intended to be a framework for the interface between a Subscriber and a Service Provider. This document supports many different types of systems with different unique needs, requirements and contractual obligations. This Interface Control Document does not override any contractual relationship between the Subscriber and Service Provider. The final implementation business rules shall be as agreed upon between the individual Subscriber and Service Provider.

3.1 Purpose

This ICD documents the interface requirements for Subscribers developing an interface to the Service Provider's CSC Host.

The ICD describes the requirements for transactions, commands and data elements used to implement the interfaces of the data transfers between Subscriber and the Service Provider.

3.2 Referenced Documents

The following documents were considered while developing this ICD:

- TxDOT Customer Service Center/Toll Management System ICD v2.1(9/4/2007)
- SH130 Appendix A – TSP and Concession Operational Environment (Version V3 Dated March 10 2011)
- SH130 Appendix B _ Adjustments (Version 1 Dates April 28 2011)
- Interoperability Interface Control Document: Customer Service Center; Local Server – to – Interop Server File Transfer (P2P ICD-01)
- Interoperability Interface Control Document: Customer Service Center; Local Server - to - Interop Server Tag Status File (P2P ICD-02)
- Interoperability Interface Control Document: Customer Service Center; Financial Transactions File (P2P ICD-03)
- Interoperability Interface Control Document: ICD-01: File Transfer
- Interoperability Interface Control Document: ICD–02: Tag Validation List
- Interoperability Interface Control Document: ICD-03: Transaction File
- Interoperability Interface Control Document: ICD-04: Web Services
- Interoperability Interface Control Document: ICD-05: License Plate Validation List
- IAG Inter-CSC Files V01.51
- TxDOT Long-Term TXN and DST ICD

- Subscriber/Service Provider Business Rules

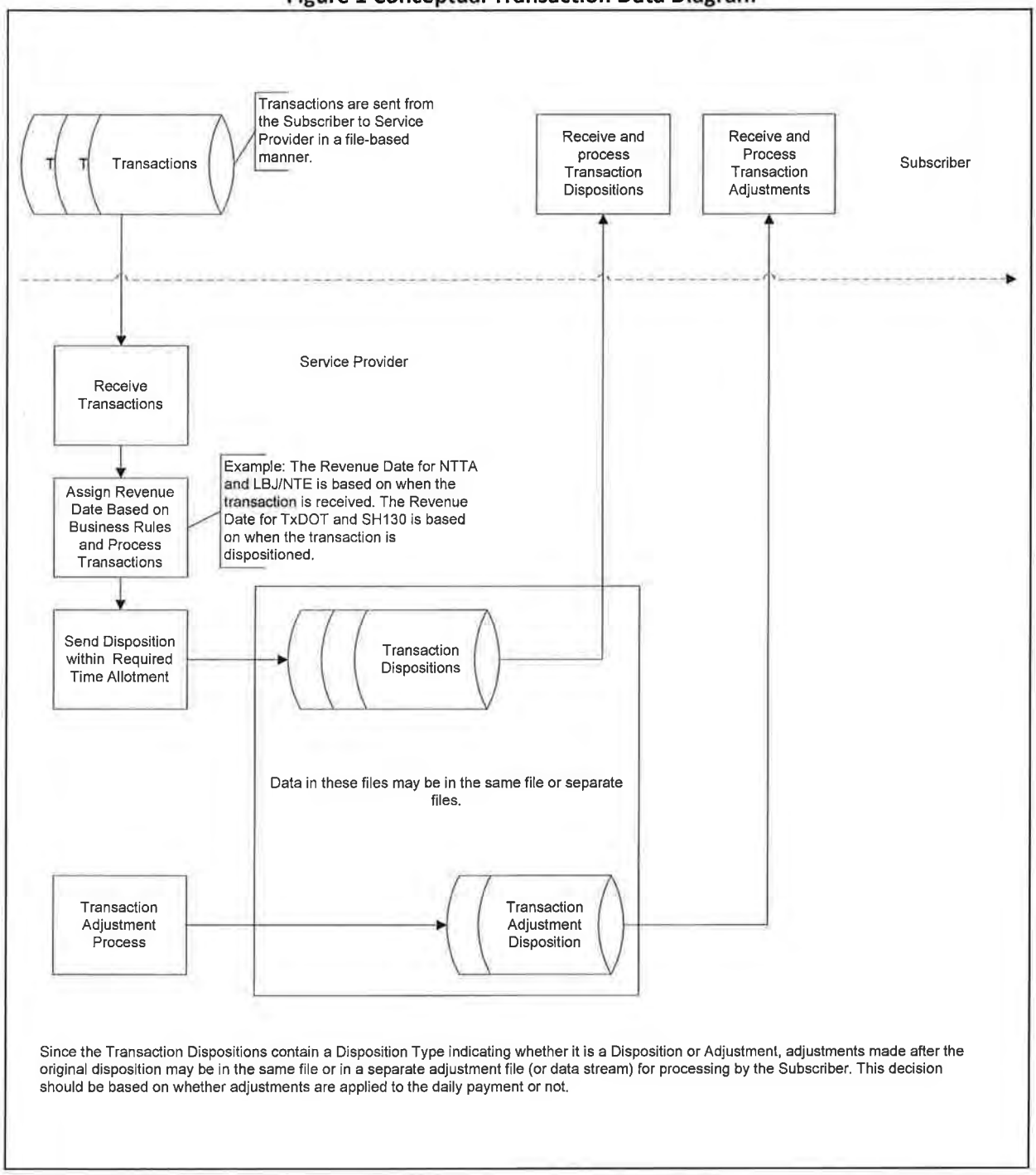
4. Subscriber – To/From – Service Provider Interface

The Subscriber – to/from – Service Provider Interface consists of the following file transfers:

- Transponder Validation List (TVL) files, full and incremental (pushed by the Service Provider to the Subscriber)
- License Plate Validation List (LVL) files, full and incremental (pushed by the Service Provider to the Subscriber)
- Transaction files (pushed by the Subscriber to the Service Provider)
- Image files (pulled from the Subscriber by the Service Provider)
- Disposition files (pushed by the Service Provider to the Subscriber)
- Acknowledgement files (both ACK and NACK)

Note: All files exchanged between the Service Provider and a Subscriber shall be accomplished using Secure File Transfer Protocol (SFTP). All SFTP servers must be password protected, and usernames and passwords will be shared at a mutually agreed time between the Subscriber and the Service Provider.

Figure 1 Conceptual Transaction Data Diagram



4.1.1 Service Provider / Subscriber File Transfer Locations

The Service Provider and Subscriber shall use the following locations on their respective SFTP Servers to push, pull and archive files required by the Service Provider / Subscriber Interface.

Note: The Subscriber should constantly monitor its SFTP site for file transfers from the Service Provider. Likewise, the Service Provider should constantly monitor its SFTP site for file transfers from the Subscriber.

4.1.1.1 Transponder Validation List File Transfers – SFTP Server File Location

The Service Provider creates Transponder Validation List (TVL) files and transmits them to the Subscriber for processing.

The structure of the file system on the Subscriber SFTP Server for delivery of the TVL files shall be as follows:

SFTP://(SubscriberSFTP Server)/(SFTP TVL dir)/(Service Provider)/input
SFTP://(Subscriber SFTP Server)/(SFTP TVL dir)/(Service Provider)/input/sending
SFTP://(Subscriber SFTP Server)/(SFTP TVL dir)/(Service Provider)/input/arch

The Service Provider shall push all TVL files (via SFTP) into the proper /input/sending directory on the Subscriber SFTP Server. After the file transmission is complete, the Service Provider then moves the file from the /input/sending subdirectory up into the main /input directory. This is done to prevent the Subscriber from picking up a file that has not completed transmission. The Subscriber shall pick up the TVL file from the /input directory and then shall move the file to the /input/arch directory for archive purposes after the file is processed.

4.1.1.2 License Plate Validation Lists– SFTP Server File Location

The Service Provider creates License Plate Validation List (LVL) files and transmits them to the Subscriber for processing.

The structure of the file system on the Subscriber SFTP Server for delivery of the LVL files shall be as follows:

SFTP://(SubscriberSFTP Server)/(SFTP LVL dir)/(Service Provider)/input
SFTP://(SubscriberSFTP Server)/(SFTP LVL dir)/(Service Provider)/input/sending
SFTP://(SubscriberSFTP Server)/(SFTP LVL dir)/(Service Provider)/input/arch

The Service Provider shall push all LVL files (via SFTP) into the proper /input/sending directory on the Subscriber SFTP Server. After the file transmission is complete, the Service Provider then moves the file from the /input/sending subdirectory up into the main /input directory. This is done to prevent the Subscriber from picking up a file that has not completed transmission. The Subscriber shall pick up the LVL file from the /input directory, and then shall move the file to the /input/arch directory for archive purposes after the file is processed.

Note: All times used in the file name format and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

4.1.1.3 Transaction File Transfers – SFTP Server File Location

The Subscriber creates Transaction files and transmits them to the Service Provider for processing.

The structure of the file system on the Service Provider's SFTP Server for pickup of Transaction files shall be as follows:

SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP TXN dir)/(Subscriber)/input
SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP TXN dir)/(Subscriber)/input/sending
SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP TXN dir)/(Subscriber)/input/arch

Note: The (Subscriber) designator for the directory for the Transaction file shall be the Subscriber that sent the Transaction file to the Service Provider. The (Subscriber) designator is found in Appendix A.

The Subscriber shall push all Transaction files (via SFTP) into the proper /input/sending directory on the Service Provider's SFTP Server. After the file transmission is complete, the Subscriber then moves the file from the /input/sending subdirectory up into the main /input directory. This is done to prevent the Service Provider from picking up a file that has not completed transmission. The Service Provider shall pick up the Transaction file from the /input directory and then shall move the file to the /input/arch directory for archive purposes after the file is processed.

4.1.1.4 Image File Transfers – SFTP Server File Location

The Subscriber creates the Image file and places it for pick-up by the Service Provider for processing. The structure of the file system on the Subscriber's SFTP Server for storage of images will be as follows:

SFTP://(Subscriber SFTP Server)/(SFTP IMAGE dir)/(Service Provider)/input/YYYYMMDDHHMN

Note: Subdirectories are set up by year (YYYY), month (MM), day (DD), hour (HH) and minute (MN).

Note: The (Service Provider) designator for the directory for Image files is the Service Provider to whom the associated transactions were sent.

The Subscriber shall place all Image files into the main /input/YYYYMMDDHHMN directory for pickup by the Service Provider. The Service Provider will pull the Image file(s) from the /input/YYYYMMDDHHMN director. The Subscriber will be responsible for storing and managing image files based on the agreement with the Service Provider.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

4.1.1.5 Disposition File Transfers – SFTP Server File Location

The Service Provider shall periodically create a Disposition file and transmit it to the Subscriber for processing.

The structure of the file system on the Subscriber's SFTP Server for pickup of Disposition files shall be as follows:

SFTP://(Subscriber SFTP Server)/(SFTP DSP dir)/(Service Provider)/input
SFTP://(Subscriber SFTP Server)/(SFTP DSP dir)/(Service Provider)/input/sending
SFTP://(Subscriber SFTP Server)/(SFTP DSP dir)/(Service Provider)/input/arch

Note: The Service Provider designator for the directory for Disposition Files shall be the Service Provider that creates the Disposition file. The (Service Provider) designator is found in Appendix A.

The Service Provider shall push all Disposition files (via SFTP) into the /input/sending directory on the Subscriber SFTP Server. After the file transmission is complete, the Service Provider shall then move the file from the /input/sending subdirectory to the main /input directory for pick up by the Subscriber. This is done to prevent the Subscriber from picking up a file that has not completed transmission. The Subscriber shall pick up the Disposition file from the /input directory and then shall move the file to the /input/arch directory for archive purposes after file processing is complete.

4.1.1.6 Acknowledgement File Transfers – SFTP Server File Location

The structure of the file system on the Service Provider's and the Subscriber's SFTP Server for pickup of Acknowledgement files shall be as follows:

Service Provider's SFTP Server:
SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP ACK dir)/(Subscriber)/input
SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP ACK dir)/(Subscriber)/input/sending
SFTP://(Service Provider SFTP Server)/(Project dir)/(SFTP ACK dir)/(Subscriber)/input/arch

Subscriber's SFTP Server:
SFTP://(Subscriber SFTP Server)/(SFTP ACK dir)/(Service Provider)/input
SFTP://(Subscriber SFTP Server)/(SFTP ACK dir)/(Service Provider)/input/sending
SFTP://(Subscriber SFTP Server)/(SFTP ACK dir)/(Service Provider)/input/arch

Note: The (Service Provider) and (Subscriber) designator for the directory for Acknowledgement Files shall be the Service Provider that creates the Acknowledgement File. The (Service Provider) designators are found in Appendix A.

The sending entity shall transfer Acknowledgment files (via SFTP) into the /input/sending directory. After the file transmission is complete, the sending entity then moves the file from the /input/sending subdirectory to the main /input directory. This is done to prevent the receiving entity from picking up a file that has not completed transmission. The receiving agency shall pick up the Acknowledgement file from the /input directory and then shall move the file to the /input/arch directory for archive purposes after the file processing is complete.

4.1.2 Service Provider / Subscriber Web Services and XML Interface Detail

This section is reserved for the description of web services based interface using XML requirements between the Subscriber and Service Provider.

5. Service Provider / Subscriber Interface File Types

This section of the ICD defines the requirements for each file type required for the Subscriber to interface to the Service Provider. In this section, you shall find information about the following file types:

- Transponder Validation List (TVL) Files – Section 5.1
- License Plate Validation List (LVL) Files – Section 5.2
- Transaction Files – Section 5.3
- Image Files – Section 5.4
- Disposition Files – Section 5.5
- Transaction and Disposition Examples – Section 5.6
- Acknowledgement Files – Section 5.7

Commas are not valid characters in any field referenced in this ICD.

If a field is not required in this ICD, it may be required based on Business Rules defined between the Subscriber and Service Provider. Please refer to defined Business Rules, as needed and necessary.

5.1 Transponder Validation List Transfer

Transponder Validation List Files are built by the Service Provider. The Transponder Validation List is a list of Service Provider transponders that are issued or previously issued and also lists transponders from interoperable agencies. New Service Provider transponders, just entered into inventory and with no history of having been issued, are not included in this file. The Transponder Validation List can be transferred in two (2) forms: full transfers (which contains information for all transponders – a full refresh of status), and incremental transfers (updates for issued transponders which have occurred since the previous file was sent). The full transfer (once daily) shall send a complete list of all Service Provider transponders issued or previously issued. The incremental transfers (once an hour) shall send any changes to the Transponder Validation List since the last full transfer or update was sent. If there are no changes or updates since the last TVL File was sent, the Service Provider shall not send an empty (incremental) TVL File to the Subscriber.

The TVL Files are transferred daily, usually overnight, and loaded into each lane that accepts ETC transactions. Updates are provided on a more frequent basis when the status of a particular transponder or account changes during the day. Careful planning of these update transfers is important so that the Service Provider, Subscriber and Lane computers are not consumed with updates.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

5.1.1 File Transfer Timetable

Full Transponder Validation List Files shall be created and pushed from the Service Provider to the Subscriber SFTP Server once a day by 4AM. Subsequently, Transponder Validation List Incremental (Update) Files shall be created and pushed from the Service Provider to the Subscriber SFTP server once an hour after the Service Provider completes and sends the full TVL File, provided updates occur. The

Service Provider shall stop sending incremental TVL Files by 3:00AM every day. Specific times shall be defined and agreed to by each Subscriber/Service Provider.

5.1.2 File Name Format

The file name shall have the date and creation time as the filename and the "tag" suffix extension.

"YYYYMMDDhhmnssaaa.tag"

where:
yyyy = year
mm = month
dd = day
hh = hour
mn = minute
ss = second
aaa = Service Provider (Reference: Appendix A)

Example: 20040815143045001.tag

5.1.3 File Format

5.1.3.1 File Header Format – TVL File

When a Transponder Validation List (TVL) File is packaged for transmission, the sender must construct the File Header so that it contains all of the required fields listed below. Once the File Header is constructed, the file contents are appended, and the entire file is transmitted to the appropriate directory location on the Subscriber SFTP Server for processing.

The File Header is a fixed length ASCII record with comma-delimited fields, terminated by a carriage return-line feed. Some of the fields within the File Header are right-justified and must be zero padded. Although all fields in the File Header are fixed in length, they are still separated by commas. This is to allow processing by either of two means: (1) specifying absolute file offset position and field length; or (2) parsing the record, breaking on the comma-delimiter. This format was developed to afford developers maximum flexibility in processing this record type.

The CRC 32 standard algorithm is used to compute the checksum value. The checksum is a 32-bit value and is displayed as an ASCII hex number. The file size is a base-10 ASCII number.

Note: The java checksum referenced in this ICD is the java.util.zip.CRC32 algorithm.

CHECKSUM Name	Polynomial
CRC-32	x32 + x26 + x23 + x22 + x16 + x12 + x11 + x10 + x8 + x7 + x5 + x4 + x2 + x + 1

Table 3 TVL File Header Format

Transponder Validation List Record Header Format					
Field Name	**Type**	**Length**	**Deli miter**	**Req'd**	**Description/Comment**
Record Code	Character	4	,	Y	This field will always be "**SH01**"
Version	Character	6	,	Y	This field is the ICD Version. Formatted, "XXX.XX" for example "0001.0" (padded with zeros).
File Date/Time	Numeric	15	,	Y	Date and time of this file creation (GMT) 'YYYYMMDD-HH24MISS'
File Control ID	Numeric	20	,	Y	A unique, sequential number created by the Service Provider that is used to identify the file.
Originating Authority	Character	3	,	Y	Refer to Appendix A.
Update Type	Character	10	,	Y	Status update type: ▪ " FULL" = Complete list of all owned transponders. ▪ " INCR" = Incremental list of transponders, a periodic update. Padded with spaces.
Record Count	Numeric	10	,	Y	The number of records in the Data Record (exclusive of the Header).
File Size	Numeric	12	,	Y	The size of the file in bytes.
Checksum	Character	8	,	Y	A 32-bit checksum computed for the contents of the file, beginning at the character immediately following the file header and its carriage return-line feed and continuing to the end of the file. This value is displayed as an 8-digit ASCII hex number.

5.1.3.2 Data Record Format – TVL File

Table 4 TVL File Data Record Format

Field Name	Type	Length	Delimit er	Req'd	Description/Comment
Record Type	Character	3	,	Y	This field will always be "**TVL**"
TVL Home Service Provider	Character	3	,	N	See Appendix A
Transponder ID	Character	20	,	Y	Complete Transponder ID, i.e. 'DNT.12345678'

Field Name	Type	Length	Delimiter	Req'd	Description/Comment
Transponder Status	Character	1	,	Y	Current Transponder status recorded at Home Authorities. Refer to Appendix F.
Transponder Vehicle Classification	Numeric	3	,	Y	Refer to Appendix E
Revenue Type	Numeric	1	,	Y	1 = Full-fare 2 = Non-revenue 3 = Exempt
Home Transponder designation	Numeric	3	,	N	0 = No Transponder Designation 1 = HOV Enabled
License Plate Type	Character	3	,	N	These distinguish the type of license plate, for example, Vanity Plate Types, Dealer, trailer, etc. Please refer to the National Crime Information Center License Plate Type Codes (http://www.gjaonline.com/sitebuildercontent/sitebuilderfiles/ncic_2000_code_manual.pdf).
License Plate State	Character	2	,	N	Two characters indicate the state code.
License Plate Country	Character	2	,	N	Two characters indicate the country code (US, MX, CN).
License Plate Value	Character	15	,	N	License Plate characters associated with the transponder
Start Date	Character	15	,	Y	Transponder Effective Start Date (GMT) 'YYYYMMDD-HH24MISS'
End Date	Character	15	,	N	Transponder Effective End Date (GMT) 'YYYYMMDD-HH24MISS'
License Plate Check	Character	1	,	N	Y/N field to indicate that a license plate verification is requested.
Attribute_1	Character	15	,	N	
Attribute_2	Character	15	,	N	
Attribute_3	Character	50	,	N	
Attribute_4	Character	50	,	N	
Attribute_5	Character	50	,	N	

5.2 License Plate Validation Lists

License Plate Validation List Files are built by the Service Provider. The License Plate Validation List is a list of Service Provider license plates that are registered on accounts where a payment method is provided by the customer or non-revenue, but transponders have not been assigned to the vehicles on this list. The License Plate Validation List can be transferred in two (2) forms: full transfers (which

contains information for all license plates – a full refresh of status), and incremental transfers (updates for license plates which have occurred since the previous file was sent). The full transfer (once daily) shall send a complete list of all Service Provider license plates. The incremental transfers (once an hour) shall send any changes to the License Plate Validation List since the last full transfer or update was sent. If there are no changes or updates since the last LVL File was sent, the Service Provider shall not send an empty (incremental) LVL File to the Subscriber.

The LVL Files are transferred daily, usually overnight. Updates are provided on a more frequent basis when the status of a particular license plate or account changes during the day. Careful planning of these update transfers is important so that the Service Provider and Subscriber are not consumed with updates.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

5.2.1 File Transfer Timetable

Full License Plate Validation List Files shall be created and pushed from the Service Provider to the Subscriber SFTP Server once a day by 4AM. Subsequently, LVL Incremental (Update) Files shall be created and pushed from the Service Provider to the Subscriber SFTP server once an hour after the Service Provider completes and sends the full LVL File, provided updates occur. The Service Provider shall stop sending incremental LVL Files by 3:00AM every day. Specific times shall be defined and agreed to by each Subscriber/Service Provider.

5.2.2 File Name Format

The file name shall have the date and creation time as the filename and the "lvl" suffix extension.

"YYYYMMDDhhmnssaaa.lvl"

where:
yyyy = year
mm = month
dd = day
hh = hour
mn = minute
ss = second
aaa = Service Provider (Reference: Appendix A)

Example: 20040815143045001.lvl

5.2.3 File Format

5.2.3.1 File Header Format – LVL File

When a License Plate Validation List (LVL) File is packaged for transmission, the sender must construct the File Header so that it contains all of the required fields listed below. Once the File Header is

constructed, the file contents are appended, and the entire file is transmitted to the appropriate directory location on the Subscriber SFTP Server for processing.

The File Header is a fixed length ASCII record with comma-delimited fields, terminated by a carriage return-line feed. Some of the fields within the File Header are right-justified and must be zero padded. Although all fields in the File Header are fixed in length, they are still separated by commas. This is to allow processing by either of two means: (1) specifying absolute file offset position and field length; or (2) parsing the record, breaking on the comma-delimiter. This format was developed to afford developers maximum flexibility in processing this record type.

The CRC 32 standard algorithm is used to compute the checksum value. The checksum is a 32-bit value and is displayed as an ASCII hex number. The file size is a base-10 ASCII number.

Note: The java checksum referenced in this ICD is the java.util.zip.CRC32 algorithm.

CHECKSUM Name	Polynomial
CRC-32	x32 + x26 + x23 + x22 + x16 + x12 + x11 + x10 + x8 + x7 + x5 + x4 + x2 + x + 1

Table 5 LVL File Header Format

License Plate Validation List Record Header Format					
Field Name	**Type**	**Length**	**Delimiter**	**Req'd**	**Description/Comment**
Record Code	Character	4	,	Y	This field will always be "**LH01**"
Version	Character	6	,	Y	This field is the ICD Version. Formatted, "XXX.XX" for example "0001.0" (padded with zeros).
File Date/Time	Numeric	15	,	Y	Date and time of this file creation (GMT) 'YYYYMMDD-HH24MISS'
File Control ID	Numeric	20	,	Y	A unique, sequential number created by the Service Provider that is used to identify the file.
Originating Authority	Character	3	,	Y	Refer to Appendix A.
Update Type	Character	10	,	Y	Status update type: ▪ " FULL" = Complete list of all License Plates that should be transmitted (based on business rules) to Subscriber. ▪ " INCR" = Incremental list of License Plates (periodic update) that should be transmitted (based on the business rules) to the subscriber. Padded with spaces.
Record Count	Numeric	10	,	Y	The number of records in the Data Record (exclusive of the Header).
File Size	Numeric	12	,	Y	The size of the file in bytes.
Checksum	Character	8	,	Y	A 32-bit checksum computed for the contents of the file, beginning at the character immediately following the file header and its carriage return-line feed and continuing to the end of the file. This value is displayed as an 8-digit ASCII hex number.

5.2.3.2 Data Record Format – LVL File

Table 6 LVL File Data Record Format

Field Name	Type	Length	Delimiter	Req'd	Description/Comment
Record Type	Character	3	,	Y	This field will always be "**LVL**"
LVL Home Service Provider	Character	3	,	N	See Appendix A.

Field Name	Type	Length	Delimiter	Req'd	Description/Comment
License Plate Status	Character	1	,	Y	Current License Plate status recorded at Home Authorities. Refer to Appendix F.
Vehicle Classification	Numeric	3	,	Y	Refer to Appendix E.
Revenue Type	Numeric	1	,	Y	1 = full-fare 2 = non-revenue 3 = exempt
License Plate Type	Character	3	,	Y	These distinguish the type of license plate, for example, Vanity Plate Types, Dealer, trailer, etc. Please refer to the National Crime Information Center License Plate Type Codes (http://www.gjaonline.com/sitebuildercontent/sitebuilderfiles/ncic_2000_code_manual.pdf).
License Plate State	Character	2	,	Y	Three characters indicate the state code.
License Plate Country	Character	2	,	Y	Three characters indicate the country code (US, MX, CN).
License Plate Number	Character	15	,	Y	License Plate Number
Start Date	Character	15	,	Y	Effective Start Date 'YYYYMMDD-HH24MISS'
End Date	Character	15	,	N	Effective End Date 'YYYYMMDD-HH24MISS'
Home license plate designation	Character	10	,	N	i.e. Fleet, Exempt
Home Authority Account ID	Character	50	,	N	Home Service Provider Account ID
Attribute_1	Character	15	,	N	This field will have additional Service Provider specific data, if necessary.
Attribute_2	Character	15	,	N	This field will have additional Service Provider specific data, if necessary.
Attribute_3	Character	50	,	N	This field will have additional Service Provider specific data, if necessary

5.3 Transaction Files

Transaction Files are pushed from the Subscriber SFTP Server to the Service Provider by SFTP. All transactions, including violations, are sent from the Subscriber to the Service Provider in Transaction

Files. Once a Transaction File has been received and processed, the reconciliation information is returned to the Subscriber in a Disposition File.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

5.3.1 File Transfer Timetable

Transaction Files shall be pushed from the Subscriber SFTP Server to the Service Provider on an agreed upon schedule. If there are no transactions to send, then no file shall be pushed.

5.3.2 File Name Format

The file name shall have the date and creation time as the filename and the "tr" suffix extension.

"YYYYMMDDhhmnssaaa.tr"

where: yyyy = year
mm = month
dd = day
hh = hour
mn = minute
ss = second
aaa = Subscriber (Reference: Appendix A)

Example: 20040815143045001.tr

5.3.3 File Format

5.3.3.1 File Header Format – Transactions File

When a Transaction File is packaged for transmission, the Subscriber must construct the File Header so that it contains all of the required fields listed below. Once the File Header is constructed, the file contents are appended; and the entire file is transmitted to the appropriate directory location on the Service Provider SFTP Server for processing.

The File Header is an ASCII record with comma-delimited fields, terminated by a carriage return.

The CRC 32 standard algorithm is used to compute the checksum value. The checksum is a 32-bit value and is displayed as an ASCII hex number. The file size is a base-10 ASCII number.

Note: The java checksum referenced in this ICD is the java.util.zip.CRC32 algorithm.

CHECKSUM Name	Polynomial
CRC-32	x32 + x26 + x23 + x22 + x16 + x12 + x11 + x10 + x8 + x7 + x5 + x4 + x2 + x + 1

Table 7 Transaction File Header Format

Field Name	Data Type	Length	Delim-iter	Required Field	Format/Range	Description/Comment
Record Type	Character	1	,	Y		Record Type. Value = 'H'
Version	Character	6	,	Y	XXX.XX	This field is the ICD Version. Formatted, "XXX.XX" for example "0001.0" (padded with zeros).
File Date/Time	Numeric	14	,	Y	YYYYMMDDHHMMSS	Date and time of this file creation (GMT)
Transaction File Control Number	Character	20	,	Y	Non-negative	A unique, sequential number created by the Subscriber that is used to identify the file.
Subscriber ID	Character	3	,	Y	See Appendix A.	Code indicating the Subscriber that owns and/or operates the facility on which the transaction occurred
Record Count	Numeric	10	,	Y	Non-negative	The number of records in the Data Record (exclusive of the Header).
File Size	Numeric	12	,	Y	Non-negative	The size of the file in bytes.
Checksum	Character	8	,	Y		A 32-bit checksum computed for the contents of the file, beginning at the character immediately following the file header and its carriage return-line feed and continuing to the end of the file. This value is displayed as an 8-digit ASCII hex number.

5.3.3.2 Data Record Format – Transactions File

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Transaction Type	Character	1	,	Y		Transaction Types: = 'T' for Transponder Transaction = 'V' for Video Transaction = 'C' for Cash Transaction ='A' for Toll Credit Transaction Adjustment = 'D' for Toll Debit Adjustment = 'I' for Informational submittal. Used for ITS or traffic count data

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Record Type	Character	1	,	Y		Record Types: = 'O' for Original Transaction = 'R' for Resubmittal = 'X' for Cancel Transaction
Subscriber Unique Transaction ID	Numeric	10	,	Y	Non-negative	Unique transaction ID assigned by the Subscriber
Resubmittal Reason	Character	2	,	N		A code denoting the reason for Resubmittal. Values: 00 - Corrected Transaction 01 – Corrected Toll Amounts
Resubmittal Count	Numeric	2	,	Y	Non-negative	The number of times that the transaction has been submitted by the Subscriber. Zero (0) for the original transaction. Only the Subscriber increments this number.
Authority ID	Character	3	,	N	See Appendix A for ID's	Authority who actually owns the facility/plaza/lane. May be different then the Subscriber
Location Type	Character	1	,	N		Location Types: = 'B' for Barrier Transaction (Open) = 'C' for Closed Tolling System (Turnpike) = 'M' for Managed Lanes = 'P' for Parking
Facility	Character	5	,	N		Indicates which Facility the transaction originated from. The roadway within the Subscriber's purview.
Subscriber ID	Character	3	,	Y		Indicates the Subscriber providing the transaction for back office processing. Please refer to Appendix A.
ENTRY INFORMATION						None of the entry fields are required. The exit fields are used when there is only one tolling point in the transaction. This section is used when the tolling application contains entry and exit points (similar to a

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
						parking location). When this section is used, the fields that are required in the exit section of the transaction record are required in the entrance section of the transaction record.
Plaza	Character	5	,	N		Indicates which Plaza the transaction originated from
Lane	Numeric	3	,	N	Lane Number within the Plaza	Indicates which Lane the transaction originated from
Lane Mode	Character	3	,	N	See Appendix D for lane modes.	Lane Mode of Operation
Transaction Date	Character	8	,	N	YYYYMMDD	Transaction date (GMT)
Transaction Time	Character	12	,	N	HHMMSSffffff	Transaction Time (allowing for milliseconds) (GMT)
Transponder ID	Character	20	,	N	Transponder ID	Transponder ID (TEX.1111111111)
Transponder Status	Character	1	,	N	See Appendix F	Transponder status associated with this transaction.
Transponder Validation List File Name	Character	21	,	N	See TVL File Name Format	The Transponder Validation List file name used to determine the status of the transponder associated with the transaction.
License Plate Validation List File Name	Character	21	,	N	See LVL File Name Format	The License Plate Validation List file name used to determine the status of the license plate associated with the image, if applicable.
Vehicle Classification	Character	3	,	N	See Appendix E	The classification of the vehicle.
Axles Expected	Numeric	2	,	N	Non-negative	Expected Axle count (based on Transponder validation list)

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Axles Counted	Numeric	2	,	N	Non-negative	Actual Axle count
Speed	Numeric	3	,	N	Non-negative	Speed of vehicle
HOV Designation	Character	2	,	N		"S" - SOV "H2" - HOV2 "H3" - HOV3
EXIT, BARRIER or GANTRY INFORMATION						None of the entry fields are required. The exit fields are used when there is only one tolling point in the transaction.
Plaza	Character	5	,	Y		Indicates which Plaza the transaction originated from.
Lane	Numeric	3	,	Y	Lane Number within the Plaza	Indicates which Lane the transaction originated from.
Lane Mode	Character	3	,	Y	See Appendix D for lane modes.	Lane Mode of Operation
Transaction Date	Character	8	,	Y	YYYYMMDD	Transaction date (GMT)_
Transaction Time	Character	12	,	Y	HHMMSSffffff	Transaction time (allowing for milliseconds)(GMT)
Transponder ID	Character	20	,	N	Transponder ID	Transponder ID (TEX.1111111111)
Transponder Status	Character	1	,	N	See Appendix F	Transponder Status in the lane when the transponder was read for this transaction. Exit Transponder Status
Transponder Validation List File Name	Character	21	,	N	See TVL File Name Format	The Transponder Validation List file name used to determine the status of the transponder associated with the transaction.
License Plate Validation List File Name	Character	21	,	N	See LVL File Name Format	The License Plate Validation List file name used to determine the status of the license plate associated with the image, if applicable.
Vehicle Classification	Character	3	,	Y	See Appendix E	The classification of the vehicle.

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Axles Expected	Numeric	2	,	N	Non-negative	Expected Axle count (based on Transponder validation list)
Axles Counted	Numeric	2	,	N	Non-negative	Actual Axle count
Speed	Numeric	3	,	N	Non-negative	Speed of vehicle
HOV Designation	Character	2	,	N		"S" - SOV "H2" - HOV2 "H3" - HOV3
Collector ID	Numeric	8	,	N	Non-negative	Toll Attendant/Collector ID, if applicable
Vault ID	Numeric	8	,	N	Non-negative	Vault ID, if applicable
Vehicle Classification for Toll Determination	Character	2	,	Y	See Appendix E	The classification of the vehicle.
Transponder Toll Amount	Numeric	6	,	Y	0.00–999.99(unlimited)	Full Toll Rate for Transponder transaction before any discount is applied.
Transponder Discount Type	Character	10	,	N		For example, 1 = Commuter, 2 = HOV, 3 = Non-Revenue, etc. Any discounts are applied before the transaction is submitted by the Subscriber. Subscriber discounts may be applied to the Transponder, Video and Cash amounts. Define in business rules.
Discounted Transponder Toll Amount	Numeric	6	,	N	0.00–999.99(unlimited)	The Transponder Toll Amount after any discount is applied. The discount type is denoted in Transponder Discount Type.
Video Toll Amount without Video Toll Premium	Numeric	6	,	N	0.00–999.99(unlimited)	Full Toll Rate for Video transaction without Video Toll Premium before any discount is applied.
Video Toll Amount with Video Toll Premium	Numeric	6	,	N	0.00–999.99(unlimited)	Full Toll Rate for Video transaction with the Video Toll Premium before any discount is applied.
Video Discount Type	Character	10	,	N		Define in business rules. 1 = Commuter, 2 = HOV, 3 = Non-Revenue, etc.

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
						Any discounts are applied before the transaction is submitted by the Subscriber. Subscriber discounts may be applied to the Transponder, Video and Cash amounts.
Discounted Video Toll Amount without Video Toll Premium	Numeric	6	,	N	0.00–999.99(unlimited)	The Video Toll Amount without Video Toll Premium after any discount is applied. The discount type is denoted in Video Discount Type.
Discounted Video Toll Amount with Video Toll Premium	Numeric	6	,	N	0.00–999.99(unlimited)	The Video Toll Amount with the Video Toll Premium after any discount is applied. The discount type is denoted in Video Discount Type.
Cash Toll Amount	Numeric	6	,	N	0.00–999.99(unlimited)	Full Toll Rate for Cash transaction before any discount is applied.
Cash Discount Type	Character	10	,	N		Define in business rules. 1 = Commuter, 2 = HOV, 3 = Non-Revenue, etc. Any discounts are applied before the transaction is submitted by the Subscriber. Subscriber discounts are applied to the Transponder, Video and Cash amounts.
Discounted Cash Toll Amount	Numeric	6	,	N	0.00–999.99(unlimited)	The Cash Toll Amount after any discount is applied. The discount type is denoted in Cash Discount Type.
Amount Paid	Numeric	6	,	N	0.00–999.99(unlimited)	Paid amount – Only used for cash transactions. (and partial payments)
Unusual Occurrence Code	Character	2	,	Y	See Appendix C for list of UO codes	Transaction code that identifies the status of the occurrence .
Number of Images	Numeric	2	,	Y	Unlimited	Number of images associated with the transaction.
The following section is repeated for each image						Repeated "Number of Images" times.
Separator	Character	1		Y		"\n" Newline Character
Image File Name	Character	38	,	Y	See Image File Name Format	File name of the image file.

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Image Location Type	Character	1	,	Y		Image Location Type for the image: = 'E' for Entry = 'X' for Exit
Image Facing	Character	2	,	Y		F - Front License Plate Image B – Back License Plate Image O – Overhead Image FL – Front License Plate only BL – Back License Plate only
License Plate State	Character	2	,	N		TX, etc.
License Plate State Confidence Level	Numeric	4	,	N	0-1000	Confidence level scaled to a 0 to 1000 range.
License Plate Country	Character	2	,	N		US = United States, MX = Mexico, CN = Canada
License Plate Country Confidence Level	Numeric	4	,	N	0-1000	Confidence level scaled to a 0 to 1000 range.
License Plate Value	Character	15	,	N		ABC1234
License Plate Value Confidence Level	Numeric	4	,	N	0-1000	Confidence level scaled to a 0 to 1000 range.
License Plate Type	Character	2	,	N		These distinguish the type of license plate, for example, Vanity Plate Types, Dealer, trailer, etc. Please refer to the National Crime Information Center License Plate Type Codes (http://www.gjaonline.com/sitebuildercontent/sitebuilderfiles/ncic_2000_code_manual.pdf).
License Plate Type Confidence Level	Numeric	4	,	N	0-1000	Confidence level scaled to a 0 to 1000 range.
OCR Engine Type	Character	2	,	N		OCR Engine Type 00 = manual, 01 = in lane camera, 02 = Dacolian, 03 = SAIC 04 = Local OCR
License Plate Overall Confidence Level	Numeric	4	,	N	0-1000	Confidence level scaled to a 0 to 1000 range.

Field Name	Data Type	Max Length	Delim-iter	Required Field	Format/Range	Description/Comment
Region of Interest (ROI) Coordinate Upper Left X	Numeric	4	,	N	Non-negative	ROI Upper left X (horizontal) coordinate.
Region of Interest (ROI) Coordinate Upper Left Y	Numeric	4	,	N	Non-negative	ROI Upper left Y (vertical) coordinate.
Region of Interest (ROI) Coordinate Lower Right X	Numeric	4	,	N	Non-negative	ROI Lower right X (horizontal) coordinate.
Region of Interest (ROI) Coordinate Lower Right Y	Numeric	4	,	N	Non-negative	ROI Lower right Y (vertical) coordinate.
License Plate Status	Character	1	,	N	See Appendix F	License Plate status in the lane or back office system when the vehicle was detected.

5.4 Image File

The Subscriber – to – Service Provider (Image Processing) Interface consists of the following file transfer:

Image Files (Subscriber – to – Service Provider -Image Processing)

5.4.1 File Name Format – Image File

The file name for the image files shall have the following format:

<Subscriber><Plaza><Lane><Year><Month><Day><Hour><Min><Sec><Millisecond><ImageNumber>.jpg

where:

<Subscriber> = AAA (Reference: Appendix A) (3 Char)
<Plaza> = PPPP = "00007" (5 Char)
<Lane> = LL = "001" (3 Char)
<Year> = YYYY (4 Char)
<Month> = MM (2 Char)
<Day> = DD (2 Char)
<Hour> = HH (2 Char)
<Min> = MI (2 Char)
<Sec> = SS (2 Char)
<Milliseconds> = ffffff (6 Char)
<ImageNumber> = _N(characters necessary to represent number, ie. _1, _2, ..._10...)

Note: The date and time information captured in the image file name shall match the date and time information (in GMT) of the associated transaction.

5.4.2 File Format

All files shall be saved in a JPEG format, and shall be designated with a filename and extension, per Section 5.4.1 (above).

5.5 Disposition File

The process for the disposition of transactions is below. This process may be refined as part of the business rules and process between the Subscriber and Service Provider. Disposition Files contains financial (reconciliation) and adjustment data in its data records. In addition to this file containing data records regarding reconciled financial data from posted transactions, the Disposition File may also contain data records relating to adjustments and rejected transactions. Therefore, data records returned in this file may not have a one-to-one relationship with the data records contained within the Transaction File. Every change to the status of a transaction shall receive a separate disposition. Every transaction submitted in the transaction file shall be reconciled. If the Subscriber does not receive a disposition for a sent transaction within 3 days, the Subscriber shall repackage the transaction and resend it in the next Transaction File. If the Subscriber does not receive a disposition for a sent transaction within 6 days from the first attempted transmission, the Subscriber shall contact the appropriate personnel to notify them of the problem.

If an adjustment is made, then the original toll amount is typically negated and the adjusted toll amount is posted. Therefore, the Subscriber will receive two adjustment transactions for an adjustment made to a toll transaction.

Note: An initial toll payment is a reconciliation (file type D), but everything after that is an adjustment (file type A).

For example, a toll is posted to a customer account in the amount of $1.00 when in reality the proper toll amount was $.75 cents. To correct the error, the Service Provider shall send the Subscriber two (2) adjustments for the original transaction. The first adjustment shall be for the amount of $-1.00 to negate the original toll amount and to bring the amount posted to the customer account to $0.00 dollars. After the first adjustment is posted to the customer account, the Service Provider shall send the Subscriber a second adjustment in the amount of $.75 cents to reflect the proper, posted toll amount.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

5.5.1 File Transfer Timetable

The Disposition File is created and sent by the Service Provider to the Subscriber SFTP Server once a day at a minimum.

5.5.2 File name format

The file name shall have the date and creation time as the filename and the "dsp" suffix extension.

"YYYYMMDDhhmnssaaa.dsp"

where:
yyyy = year
mm = month
dd = day
hh = hour
mn = minute

ss = second
aaa = The Subscriber that receives the Disposition File from the Service Provider. (Reference: Appendix A)

Example: 20040815143045005.dsp

5.5.3 File Format

5.5.3.1 File Header Format – Disposition File

When a Disposition File is packaged for transmission, the sender must construct the File Header so that it contains all of the required fields listed below. Once the File Header is constructed, the file contents are appended; and the entire file is transmitted to the appropriate directory location on the Service Provider or Subscriber SFTP Server for processing.

The File Header is a fixed length ASCII record with comma-delimited fields, terminated by a carriage return-line feed. Some of the fields within the File Header are right-justified and must be zero padded. Although all fields in the File Header are fixed in length, they are still separated by commas. This is to allow processing by either of two means: (1) specifying absolute file offset position and field length; or (2) parsing the record, breaking on the comma-delimiter. This format was developed to afford developers maximum flexibility in processing this record type.

The CRC 32 standard algorithm is used to compute the checksum value. The checksum is a 32-bit value and is displayed as an ASCII hex number. The file size is a base-10 ASCII number.

Note: The java checksum referenced in this ICD is the java.util.zip.CRC32 algorithm.

CHECKSUM Name	Polynomial
CRC-32	x32 + x26 + x23 + x22 + x16 + x12 + x11 + x10 + x8 + x7 + x5 + x4 + x2 + x + 1

Table 8 Disposition File Header Format

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
Record Type	Char (1)	Y	,		Record Type. Value = 'H'
Version	Char(6)	Y	,	XXX.XX	This field is the ICD Version. Formatted, "XXX.XX" for example "0001.0" (padded with zeros).
File Date/Time	Char (14)	Y	,	YYYYMMDDHHMMSS	Date and time of this file creation (GMT)
File Control Number	Char (20)	Y	,	00000000-99999999	A unique, sequential number created by the SERVICE PROVIDER that is used to identify the file

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
					Note: This field is right-justified and must be zero padded.
Subscriber ID	Char (3)	Y	,	For a list of authorities, refer to Appendix A.	Code indicating the Subscriber that owns/operates the facility on which the transaction occurred
Record Count	Char (10)	Y	,	0000000000-9999999999	The number of records in the Data Record (exclusive of the Header). **Note**: This field is right-justified and must be zero padded.
File Size	Numeric (12)	Y	,	000000000000-999999999999	The size of the file in bytes. **Note**: This field is right-justified and must be zero padded.
Checksum	Char (8)	Y			A 32-bit checksum computed for the contents of the file, beginning at the character immediately following the file header and its carriage return-line feed and continuing to the end of the file. This value is displayed as an 8-digit ASCII hex number.

5.5.3.2 Data Record Format – Disposition File

Table 9 Disposition File Data Record Format

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
Disposition Type	Char (1)	Y	,		Disposition = 'D' Adjustment = 'A'
Service Provider Unique ID	Char (10)	Y	,	0000000000 – 9999999999	Unique ID for each record assigned by the Service Provider
Subscriber Unique ID	Char (10)	Y	,	0000000000 – 9999999999	Unique transaction ID assigned by the Subscriber Unique transaction ID assigned by the Subscriber's system.
Transaction Disposition Counter	Char(2)	Y	,	01-99	An incremental count for each time a transaction's disposition is sent back to the Subscriber. Only the Service Provider sets this value.

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
Subscriber ID	Char (3)	Y	,		Indicates the Subscriber providing the transaction for back office processing. Please refer to Appendix A.
Record Type	Char (1)	Y	,	The record type in the original transaction	Record Type (from original transaction)
TXN Resubmitted Counter	Char (2)	Y	,		This count is taken from the resubmitted transaction.
Revenue Date	Char (8)	Y	,	YYYYMMDD	Revenue date - based on when the clock starts for processing and reconciling transactions by the Service Provider. For example, for TxDOT, The clock may start based on when the transaction is processed and for NTTA, the clock may start when the transaction is received.
Transaction date	Char (8)	Y	,	YYYYMMDD	Transaction date (from original transaction)
Disposition Date	Char (8)	Y	,	YYYYMMDD	The date the transaction was statused by the Service Provider. The date the Service provider provided initial status or a change in status of the transaction
Disposition Toll Type	Char (2)	Y	,	00-XX	Since multiple toll values are provided, but because of the processing of the transaction, a Transponder Toll may be applied to the transaction instead of a Video Toll (as an example). This field tells the Subscriber which toll amount was used. 0 - Not applicable 1 - Transponder 2 - Transponder Discount 3 - Video Toll 4 – Video Toll with Toll Premium 5 - Video Discount 6 – Video Toll with Toll Premium Discount 7 - Non - Revenue (only to be used with a disposition Type of 'A')
Disposition Toll Amount	Char(8)	Y	,	000.00–999.99, 000.00-(-999.99)	This is the toll posted to the customer account (being pursued or adjusted) either based on the original transaction or adjustment.

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
Base Transaction Fee	Char(9)	N	,	000.0000–999.9999, 000.0000-(-999.9999)	
Variable Transaction Fee	Char(9)	N	,	000.0000–999.9999, 000.0000-(-999.9999)	
Interop Transaction Fee	Char(9)	N	,	000.0000–999.9999, 000.0000-(-999.9999)	
Misc 1 Fee (FUTURE USE)	Char(9)	N	,	000.0000–999.9999, 000.0000-(-999.9999)	Reserved for future use
Misc 2 Fee (FUTURE USE)	Char(9)	N	,	000.0000–999.9999, 000.0000-(-999.9999)	Reserved for future use
Net Payment Amount	Char(9)	Y	,	000.0000–999.9999, 000.0000-(-999.9999)	**(Disposition Toll Amount - Base Transaction Fee - Variable Transaction Fee - Interop Transaction Fee = Net Payment Amount)** Adjustments can be communicated back to the Subscriber from Service Provider using the Disposition Toll Amount, Fee fields and this field.
Disposition Code	Char(2)	Y	,	0 – 99	Disposition Codes: 0 = Accepted 1 = Rejected 2 = Adjusted 3 = Processed 4 = Paid
Disposition Reason	Char(2)	N	,	Refer to Appendix B for a list of reason codes.	Reason code that identifies the status of the disposition
Disposition Transponder ID	Char(20)	N	,		Internal ID for each transponder
Disposition Vehicle Classification	Char(3)	Y	,		The vehicle classification that was posted to the back office system or was adjusted. See Appendix E.
Disposition License Plate State	Char(2)	N	,		

Field Name	Data Type	Required Field	Delim-iter	Format/Range	Description/Comment
Disposition License Plate	Char(15)	N			

5.6 Acknowledgement File

Acknowledgement Files shall be sent from the receiving entity (Service Provider or Subscriber) after every file transfer, except in regards to Image Files. Because Image Files are pulled by the Service Provider from the Subscriber SFTP Server, acknowledgement is not necessary. Acknowledgement Files shall indicate a successful or unsuccessful file transfer based on verification of the transferred file's checksum, file size, record count and uniqueness.

File Transfers:

After a file is transferred (via SFTP) from the /input/sending subdirectory into the main /input directory, the receiving entity (Service Provider or Subscriber) shall pick up the file and check the integrity of the data within the file using the file checksum. Once the file is checked, the receiving entity shall send an**_ack** or **_nack** file back to the sending entity before archiving the file. Acknowledging the file is done before archiving the file to prevent the receiving entity from archiving a bad file. Should a file prove to be invalid based on the file checksum, the receiving entity shall not process the invalid file and the sending entity shall be notified by the **_nack** file. Once the entity that sent the original file receives the **_nack** file, they shall repackage the file and send it again. Should the second attempt also result in the generation of a **_nack** file, the sending entity shall send an e-mail to the target entity to notify them of the problem, investigate the problem and transfer the file manually to the target entity once the problem has been resolved.

Note: All Acknowledgement Files shall be sent within five (5) minutes of the receiving entity's receipt of a file. Should the sending entity not receive an acknowledgement file within five (5) minutes of sending a Transaction File (.tr) to the target entity, the sending entity may send an e-mail to the target entity to notify them of the problem. However, should the sending entity not receive an acknowledgement file within five (5) minutes of sending a Transponder Validation List (TVL), License Plate Validation List (LVL), Disposition file (DSP) or Transaction file (.tr), the sending entity shall send an e-mail to the target entity to notify them of the problem within one hour of the sending entity's transmission of the file.

File Naming Conventions:

Acknowledgement Files shall use the following naming conventions based on the success or failure of the file transfer.

Successful Transmission:

If a file's checksum, file size and record count, identified in the file's header, are verified as correct by the receiving entity, the receiving entity shall send an Acknowledgement File to the sending entity. The Acknowledgement File shall use the following naming scheme:

(original file name.ext)**_(Service Provider/Subscriber)_ack**

Unsuccessful Transmission:

If a file's checksum, file size and record count cannot be verified as correct, based on the information in the file header, the receiving entity shall create an Acknowledgement File that specifies that the transmission of the file was not successful. The receiving entity shall specify that the file transfer failed by utilizing the following file naming scheme:

(original file name.ext)**_(Service Provider/Subscriber)_nack**

5.6.1 File Transfer Timetable

Acknowledgement files shall be sent for the following file types:

- TVL Files
- LVL Files
- Transaction Files
- Disposition Files

The party that sends a file shall receive an acknowledgement file within 5 minutes of the file being received by the target entity.

Note: All times used in the file name format, file directory name format, and in the file contents are designated in GMT (Greenwich Mean Time (Universal Time Zone)).

5.6.2 File Name Format

As mentioned above, Acknowledgement Files shall be named based on the success or failure of the file transmission. Refer to the lists below for an example of the Acknowledgement File naming conventions used for each file type based on both success and failure.

Successful Transmission:

Successful file transmissions shall use the following naming convention:

(original file name.ext)**_(Service Provider/Subscriber)_ack**

- TVL Files – 20040815143045001.tag**_LBJ_ack**
- LVL Files – 20040815143045001.lvl**_NTE_ack**
- Transaction Files – 20040815143045004.tr**_TXDOT_ack**
- Disposition Files – 20040815143045004.dsp**_SH130_ack**

Unsuccessful Transmission:

Unsuccessful file transmissions shall use the following naming convention:

(original file name.ext)**_(Service Provider/Subscriber)_nack**

- TVL Files – 20040815143045001.tag**_LBJ_nack**
- LVL Files – 20040815143045001.lvl**_NTE_nack**
- Transaction Files – 20040815143045004.tr**_NTTA_nack**
- Disposition Files – 20040815143045004.dsp**_SH130_nack**

5.6.3 File Format

5.6.3.1 File Header Format – Acknowledgement File

The File Header is a fixed length ASCII record with comma-delimited fields, terminated by a carriage return-line feed. Although the fields are fixed in length, they are still separated by commas. This is to allow processing by either of two means: (1) specifying absolute file offset position and field length; or (2) parsing the record, breaking on the comma-delimiter. This format was developed to afford developers maximum flexibility in processing this record type.

Table 10 Acknowledgement File Header Format

Field Name	Data Type	Required Field	Format/Range	Description/Comment
Record Type	Char (1)	Y		Record Type. Value = 'H'
Version	Character (6)	Y	XXX.XX	This field is the ICD Version. Formatted, "XXX.XX" for example "0001.0" (padded with zeros).
File Date/Time Created	Char (14)	Y	YYYYMMDDHHMMSS	Date and time of this file creation (GMT)
Original File Date/Time Received	Char (14)	Y	YYYYMMDDHHMMSS	Date and time the original file was received (GMT)

Field Name	Data Type	Required Field	Format/Range	Description/Comment
Processing Status	Char (1)	Y		Processing status of file received: ▪ "V" – Checksum, file size and record count validated ▪ "C" –Checksum invalid ▪ "F" – File size invalid ▪ "D" – Record count invalid ▪ "N" - File Name invalid ▪ "X" - Duplicate File Name ▪ "T" - Date Time Format invalid ▪ "H" - Missing Header Information (If one of the value or header is missing) ▪ "R" - File Control Number invalid ▪ "O" - Other

Appendix A: Authority, Service Provider, Subscriber IDs

ID	Definition
001	TXDOT
002	NTTA
003	HCTRA
004	CTRMA
005	SH130C
006	LBJ
007	NTE (Segment 1 and 2)
008	DFW Connector
009	NTE (Segment 3a/b)
011	Future use
012	Future use
013	Future use
014	Future use
015	Future use
016	Future use
017	Future use
018	Future use

ID	Definition
019	Future use
020	Future use

Appendix B: Disposition Reason Codes

Code	Status	Definition
Reject Codes		
1	Bad Transaction record format	
2	Duplicate	Request for payment by AVI or pay-by-plate to Service Center was previously submitted.
3	Transaction Expired	Transaction submitted by Subscriber is too old based on Service Providers processing rules
4	Invalid Transponder	Transaction submitted by the Subscriber contains a Transponder ID that is either not valid or empty.
5	Invalid License Plate and/or state	Transaction submitted by the Subscriber contains a license plate that contains characters that are not allowed (i.e. ~) or State code that does not exist.
6	Customer does not have sufficient funds.	The Service Provider's Customer does not have sufficient funds to pay for the transaction.
7	No Image Available	The image associated with the transaction is not available when the image is attempted to be retrieved from the Subscriber's location.
8	Invalid Toll Amount	Transaction submitted by the Subscriber contains toll amounts that are not valid (too high or contains invalid characters).
9	Invalid Discount	Transaction submitted by the Subscriber contains an invalid discount code.
10	Invalid Date/Time	The transaction record contains an invalid date and time. (Too old or invalid date/time)
11	Invalid Location	The transaction record contains an invalid location.
12	Adjustment Credit cannot be processed	Adjustment Credit cannot be processed.
13	Adjustment Debit cannot be processed	Adjustment Debit cannot be processed.
Adjustment Codes		
20	Vehicle Misclassification by Subscriber	Transaction submitted by the Subscriber contained a vehicle classification that was not the vehicle classification associated with the vehicle on the account.
21	Incorrect Toll charged	Transaction submitted by the Subscriber contained a toll amount that was

Code	Status	Definition
		incorrect at the time of the transaction for the vehicle classification.
22	Convert to Video Transaction	Transaction submitted by the Subscriber is being processed as a Video Transaction instead of a Transponder Transaction.
23	Convert to Interoperability Video Transaction	Transaction submitted by the Subscriber has been processed as an IOP Transaction.
24	Convert to Transponder Transaction	Transaction submitted by the Subscriber is being processed as a Transponder Transaction instead of a Video Transaction.
25	Convert to Interoperability Transponder Transaction	Transaction submitted by the Subscriber has been processed as an IOP Transponder Transaction.
26	Convert to Exempt Transaction	Transaction submitted by the Subscriber has been adjusted to an Exempt Transaction.
27	Convert to Emergency Transaction	Transaction submitted by the Subscriber has been adjusted to an Emergency Transaction.
28	Convert to HOV	Transaction submitted by the Subscriber has been adjusted to an HOV Transaction.
29	Convert to SOV	Transaction submitted by the Subscriber has been adjusted to an SOV Transaction.
30	Convert to Non-exempt	Transaction submitted by the Subscriber has been adjusted from an Exempt Transaction to a Non-Exempt Transaction.
80	Not collectible	The transaction has been determined not to be collectible and this code is acceptable to the Subscriber.
81	Base Fee Adjustment	The base fee requires adjusting. This is typically based on the change in how the transaction is processed and the fee is adjusted.
82	Subscriber Adjustment	The disposition reason is due to an adjustment coming in from the Subscriber.
90	Transaction Reversal	Transaction Reversal
91	Transaction Reversal - Adjustment	An adjustment to the transaction
92	Transaction Reversal – Write-off	Adjustment due to write-off
Image Code Offs		
60	Image Not Clear	License plate was unreadable

Code	Status	Definition
61	Incomplete image	License plate image did not show a vehicle.
62	Plate Obstruction	Vehicle had unreadable license plate (e.g., older, non-reflective plate type, trailer hitch)
63	Black	Entire violation image was black.
64	Rejected Paper Plate	Dealer plates non-pursuable
65	Unknown State	unknown license plate State
66	US Government Plate	Vehicle had U.S. government issue license plate.
67	Non-US Plate	Vehicle had a non-U.S. (foreign) license plate.
68	Maintenance Vehicle	Maintenance vehicle
69	Exempt	Exempt plate

Appendix C: Unusual Occurrence Codes

Unusual Occurrence Code	Meaning	Description
0	No Unusual Occurrence Detected	No unusual occurrence occurred
1	Vehicle Run Through (Cash Only)	Vehicle passed through the Plaza/Lane location without paying and has no transponder
2	Insufficient Funds Toll Transaction	Vehicle did not pay enough, usually occurs with ACMs
3	Invalid Transponder- Bad Status	Lost/Stolen/Returned/Negative
4	Invalid Transponder - Not in TVL	Transponder ID not found in the TVL
5	Transponder Class Mismatch	The class assigned to the transponder does not match the classification at the lane
6	Misclass	The automatic classification of the lane does not match the classification by the toll operator (manual)
7	Speeding at *xx* mph	Image taken when vehicle exceeds a preset speed. Used only when speed check is implemented at the lane.
8	National Guard	Used at manual lane.
9	Police	Used at manual lane.
10	Fire	Used at manual lane.
11	Ambulance	Used at manual lane.
12	Handicapped	Used at manual lane.
13	Other	Used when no other code fits. This is the catch-all code.
81-99	RESERVED for Agencies	RESERVED for Agencies

Appendix D: Lane Modes

Lane Mode	Meaning
0	Open
1	Closed
2	Manual Toll Collection
3	ACM
4	Attended ACM
5	ACM /ETC
6	Dedicated ETC
7	Open Road (ETC)
8	Maintenance Mode
9	Event Mode
10	Standby Mode
11	Emergency Mode

Appendix E: Vehicle Classifications

Please note: Service Provider-specific Vehicle Classifications are maintained in separate business rule documents.

	Vehicle Class ID	No. of Axles	Description	Special Characteristics	NTTA	TxDOT
Axle Based Classification	1	N/A				X
	2	<=2 axles	Two-axle vehicle		X	X
	3	3 axles	Three-axle vehicle		X	X
	4	4 axles	Four-axle vehicle		X	X
	5	5 axles	Five-axle vehicle		X	X
	6	6 axles	Six-axle vehicle		X (6+ axles)	X
	7	7 axles	Seven-axle vehicle			X
	8	8 axles	Eight-axle vehicle			X
	9	9 axles	Nine-axle vehicle			X
	10	>=10 axles	Ten+-axle vehicle			X
Shaped Based Classification	11		Reserved			
	12		Motorcycles, Passenger Cars, Light Duty vehicles, Pickups, Vans, SUVs	Height < 7ft, and Length < 20 ft, and Width < 8.5 ft		X
	13		Any Class 12 vehicle pulling a trailer	Same as Class 12 above with a detected trailer (but combined dimensions less than a Class 17)		X
	14		Truck or Tractor	Larger than Class 12, but Height < 12ft, and Length < 46 ft, and Width < 8.5 ft		X
	15		Tractor with trailer	Same as Class 14, but with a trailer.		X
	16		Tractor with two (2) trailers	Same as Class 15, but with a second trailer		X
	17		Special Vehicle	Height > 14 ft, or Length > 73 ft, or Width > 8.5 ft, or Weight > 80,000 lbs. Or, Special Permit.		X

	18		Reserved			
	19		Reserved			
	20		Reserved			

Appendix F: Transponder and License Plate Status

Transponder Status	License Plate Status	Meaning
G	G	Good: The Transponder/Plate is in good standing on an account.
B	B	Low Balance: The Transponder/Plate is in good standing on an account with low balance.
I	I	Invalid: The Transponder/Plate is not valid.
L	N/A	Lost: The Transponder is reported as lost and is not valid.
N	N	Negative Balance: The Transponder/Plate is in good standing on an account with a negative balance. Therefore, the Transponder/Plate is considered not valid.
R	N/A	Returned: The Transponder is returned and is not valid.
S	S	Stolen: The Transponder/Plate is reported as stolen and is not valid.
X	X	Exempt Vehicle: The Transponder/Plate is an Exempt/Non-Revenue Transponder/Plate and should be processed based on the Subscriber/Service Provider business rules.

EXHIBIT D

MEASUREMENT OF COMPENSATION FOR DELAYED INVOICING OF INTERIM PERIOD VIDEO TRANSACTIONS

All dates referenced in this Exhibit D shall be automatically extended due to, and in the amount of, any TxDOT-Caused Delay. If any date for performance under this Agreement falls on a non-Business Day, the date will be deemed extended to the next full Business Day.

1. Compensation relating to Video Transactions that are accrued from and after the Service Commencement Date and would have been delivered to NTTA and qualified for invoicing on September 1, 2014 pursuant to Section 4(b) (if NTTA then was prepared to perform tolling services) but not invoiced by NTTA by October 10, 2014:

NTTA will owe compensation to TxDOT equal to 5% of the face amount of Video Transactions that would have been delivered to NTTA and qualified for invoicing on September 1, 2014 (if NTTA was then prepared to perform tolling services), but have not been invoiced by October 10, 2014. Such compensation will be payable on October 17, 2014.

Thereafter, NTTA will owe compensation to TxDOT equal to 0.167% (or 0.00167) per day, from and after October 11, 2014 (through and including December 31, 2014), of the face amount of such uninvoiced qualified Video Transactions until invoiced. The aggregate amount of any compensation owing pursuant to the preceding sentence will be payable on (i) November 17, 2014 for the period from October 11, 2014 through November 10, 2014, (ii) December 17, 2014 for the period from November 11, 2014 through December 10, 2014 and (iii) January 7, 2015 for the period from December 16, 2014 through December 31, 2014.

2. Compensation relating to Video Transactions that are accrued or qualified for invoicing from and after September 1, 2014 through the end of the Interim Period and would have been delivered to NTTA after September 1, 2014 pursuant to Section 4(b) (if NTTA was prepared to perform tolling services at the applicable time) but not invoiced by NTTA within 40 days after the applicable date that such Video Transactions would have been delivered to NTTA and qualified for invoicing:

NTTA will owe compensation to TxDOT equal to 0.167% (or 0.00167) per day, from and after the 41st day after the date each qualified Video Transaction would have been delivered to NTTA (through and including December 31, 2014), of the face amount of uninvoiced qualified Video Transactions until invoiced. The aggregate amount of any compensation owing pursuant to the preceding sentence will be payable on (i) November 17, 2014 for the period from October 11, 2014 through November 10, 2014, (ii) December 17, 2014 for the period from November 11, 2014 through December 10, 2014 and (iii) January 7, 2015 for the period from December 16, 2014 through December 31, 2014.

If the Interim Period has not ended by December 31, 2014, except as such date is extended by a TxDOT-Caused Delay, then NTTA will be in default under this Agreement.