

1734	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile files received from and sent to the banks have been processed.
1735	The Contractor shall provide reports that support and identify source of errors, variances and exceptions.
1736	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile expected revenue to the actual revenue for each account established by the BOS.
1737	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to the financial reports.
1738	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to payments received by the BOS from various entities, such as Interoperable Agencies, Credit Card processor and Lockbox Service Provider (optional).
1739	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various agencies.
1740	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various entities, such as Interoperable Agencies and customer refunds.
1741	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to the bank statements provided by the bank, including but not limited to:
	<ul style="list-style-type: none"> <li>beginning balance;</li> </ul>
	<ul style="list-style-type: none"> <li>activities for the month (such as payments, adjustments and checks cleared);</li> </ul>
	<ul style="list-style-type: none"> <li>deposits in transit;</li> </ul>
	<ul style="list-style-type: none"> <li>outstanding checks;</li> </ul>
	<ul style="list-style-type: none"> <li>reconciling items and</li> </ul>
	<ul style="list-style-type: none"> <li>ending balance.</li> </ul>

**1.16.5.9.      *Reconciliation with Collections Reports***

The Contractor shall utilize collection services to pursue Image-Based Transactions/Trips and other unpaid receivable balances.

1742	Reports provided by the BOS shall track:
	<ul style="list-style-type: none"> <li>the transmission of files;</li> </ul>
	<ul style="list-style-type: none"> <li>Collections Placements in Collections by Collection Agency;</li> </ul>
	<ul style="list-style-type: none"> <li>collections aging and</li> </ul>
	<ul style="list-style-type: none"> <li>performance of each Collection Agency.</li> </ul>
1743	The Contractor shall provide reports that track the transmission of the collection files and Collections responses including but not limited to:
	<ul style="list-style-type: none"> <li>number and dollar value of accounts by account type in the Collections file;</li> </ul>
	<ul style="list-style-type: none"> <li>outstanding amounts (fees, penalties and Tolls);</li> </ul>

	<ul style="list-style-type: none"> <li>• number and dollar value of Collections Placements;</li> </ul>
	<ul style="list-style-type: none"> <li>• number and dollar value of transactions/trips;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of responses received and</li> </ul>
	<ul style="list-style-type: none"> <li>• number of errors.</li> </ul>

**1.16.5.10. Reconciliation with California FTB Tax Intercept Program Reports**

The Contractor shall utilize the California FTB to pursue Image-Based Transactions/Trips and other unpaid receivable balances.

1744	Reports provided by the BOS shall track:
	<ul style="list-style-type: none"> <li>• the transmission of files;</li> </ul>
	<ul style="list-style-type: none"> <li>• debts placed with FTB;</li> </ul>
	<ul style="list-style-type: none"> <li>• debt at FTB aging and</li> </ul>
1745	<ul style="list-style-type: none"> <li>• performance of FTB.</li> </ul>
	The Contractor shall provide reports that track the transmission of files and FTB responses, including but not limited to:
	<ul style="list-style-type: none"> <li>• number and dollar value of accounts by account type in the FTB file;</li> </ul>
	<ul style="list-style-type: none"> <li>• outstanding amounts (fees, penalties and tolls);</li> </ul>
	<ul style="list-style-type: none"> <li>• number and dollar value of FTB Placements;</li> </ul>
	<ul style="list-style-type: none"> <li>• number and dollar value of transactions/trips;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of responses received and</li> </ul>
	<ul style="list-style-type: none"> <li>• number of errors.</li> </ul>

**1.16.5.11. Reconciliation with Lockbox Reports (optional)**

All payments and funds received by the Lockbox Service Provider (if elected) are deposited in the Authority's Bank Accounts. The Authority requires the capture of all deposit data in the BOS. If the Contractor provides a Lockbox Service Provider, the following applies:

1746	The Contractor shall provide reports that track Lockbox Service Provider payments (summary and detail), including but not limited to:
	<ul style="list-style-type: none"> <li>• account number;</li> </ul>
	<ul style="list-style-type: none"> <li>• Payment Type;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of payments;</li> </ul>
	<ul style="list-style-type: none"> <li>• payment amounts;</li> </ul>
	<ul style="list-style-type: none"> <li>• payment dates;</li> </ul>
	<ul style="list-style-type: none"> <li>• document type;</li> </ul>

	<ul style="list-style-type: none"> <li>• document number;</li> </ul>
	<ul style="list-style-type: none"> <li>• amount exceptions;</li> </ul>
	<ul style="list-style-type: none"> <li>• account exceptions and</li> </ul>
	<ul style="list-style-type: none"> <li>• other exceptions.</li> </ul>
1747	The Contractor shall provide reports that balance to financial reports.
1748	The Contractor shall provide reports that balance to settlement reports.
1749	The Contractor shall provide reports that balance to account reports.
1750	The Contractor shall provide reports that display payment trends.

**1.16.5.12. Reconciliation with Print/Mail House Service Provider Reports (optional)**

The Contractor may utilize the services of third-party Print/Mail House Service Provider(s) to mail Notifications to customers. The reconciliation of the Notifications transmitted to the Print/Mail House Service Provider(s) and tracking of mailing date is critical to the CSCBOS operations.

1751	The Contractor shall provide reports that track the Notification files and the Print/Mail House Service Provider responses, including but not limited to:
	<ul style="list-style-type: none"> <li>• number of records transmitted;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of responses received;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of bad addresses and</li> </ul>
	<ul style="list-style-type: none"> <li>• number of corrections made.</li> </ul>
1752	The Contractor shall provide reports that track the Notification files transmitted to the Print/Mail House Service Provider, including but not limited to:
	<ul style="list-style-type: none"> <li>• Notification type quantity and total dollar value;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of Violation Transactions/Trips and fees and penalties in each Notice;</li> </ul>
	<ul style="list-style-type: none"> <li>• date transmitted;</li> </ul>
	<ul style="list-style-type: none"> <li>• response on each Notification;</li> </ul>
	<ul style="list-style-type: none"> <li>• processing status of each Notification;</li> </ul>
	<ul style="list-style-type: none"> <li>• date of printing;</li> </ul>
	<ul style="list-style-type: none"> <li>• date of mailing;</li> </ul>
	<ul style="list-style-type: none"> <li>• number of pages;</li> </ul>
	<ul style="list-style-type: none"> <li>• Notifications that were not mailed;</li> </ul>
	<ul style="list-style-type: none"> <li>• mailing exceptions (such as duplicate mailing or Notification missing elements);</li> </ul>
	<ul style="list-style-type: none"> <li>• cancelled requests;</li> </ul>
	<ul style="list-style-type: none"> <li>• re-prints and</li> </ul>
	<ul style="list-style-type: none"> <li>• re-transmissions.</li> </ul>

**1.16.6. Data Analytics (Business Intelligence) (Phase II and Optional)**

The Commercial Off-the-Shelf (COTS) data analytics Software will be used in conjunction with the data warehouse to provide data analytics (business intelligence).

1753	The Contractor shall provide a COTS data analytics solution that works in conjunction with the data warehouse.
1754	The Contractor shall provide the capability for the analysis of multi-dimensional data sets, arrays and data cubes using an online analytical processing (OLAP) tool.
1755	The Contractor shall provide 10 pre-defined analytics reports (to be determined during a post-Go-Live Phase II period).
1756	The Contractor shall provide the capability for Authorized Users to display, print and export to reports and presentations the results of analysis in multiple formats, including but not limited to:
	<ul style="list-style-type: none"> <li>all standard forms of tabular reporting;</li> </ul>
	<ul style="list-style-type: none"> <li>all standard forms of graphs;</li> </ul>
	<ul style="list-style-type: none"> <li>all standard forms of charts and</li> </ul>
	<ul style="list-style-type: none"> <li>maps by ZIP code, city, county, state and country.</li> </ul>
1757	The Contractor shall provide customized, graphical, reporting templates for the display, printing and export of information into reports and presentations.
1758	The Contractor shall provide the capability for Authorized Users to do self-service data queries and analysis.
1759	The Contractor shall provide the capability to produce analytical reporting so activity on the complete Express Lanes by any combination of the following parameters in both report and data query format, including but not limited to:
	<ul style="list-style-type: none"> <li>account type;</li> </ul>
	<ul style="list-style-type: none"> <li>account status;</li> </ul>
	<ul style="list-style-type: none"> <li>customer account demographic information;</li> </ul>
	<ul style="list-style-type: none"> <li>CSC operational customer service data;</li> </ul>
	<ul style="list-style-type: none"> <li>customer Notifications information;</li> </ul>
	<ul style="list-style-type: none"> <li>payments type;</li> </ul>
	<ul style="list-style-type: none"> <li>vehicle type;</li> </ul>
	<ul style="list-style-type: none"> <li>Interoperable or home customers;</li> </ul>
	<ul style="list-style-type: none"> <li>revenue type;</li> </ul>

	<ul style="list-style-type: none"><li>• Transponder-Based Transactions/Trips;</li></ul>
	<ul style="list-style-type: none"><li>• Image-Based Transactions/Trips;</li></ul>
	<ul style="list-style-type: none"><li>• Plate Type;</li></ul>
	<ul style="list-style-type: none"><li>• Violations;</li></ul>
	<ul style="list-style-type: none"><li>• I-Tolls;</li></ul>
	<ul style="list-style-type: none"><li>• time period (for example, day, week, month, year);</li></ul>
	<ul style="list-style-type: none"><li>• time of day and</li></ul>
	<ul style="list-style-type: none"><li>• day of week of the transaction.</li></ul>

## **Exhibit B**

# **Volume III: Customer Service Center (CSC) Operations**

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## **1. SCOPE OF WORK AND REQUIREMENTS**

The following subsections describe the Scope of Work and Requirements for the CSC Operations. These Requirements are numbered to track obligations per the Agreement and any changes which may occur during the Project. Many of the Requirements contain underlying lists of specific items and work functions. The intent of these “including but not limited to” lists is to indicate to the proposer the intent and scope of the Requirement.

### **1.1. Operational Requirements**

#### **1.1.1. General Requirements**

This section lists the high-level operations Requirements.

1	The Contractor shall provide all management, system Maintenance, supervisory, financial and CSC Operations staff, including qualified management, professional and clerical personnel, to professionally operate and administer the Authority’s CSC Operations in a manner that meets all required Performance Measures.
2	The Contractor shall put in place the organizational structure and headcount required to meet these Requirements.
3	The Contractor shall be responsible for all providing all consumables (other than those explicitly stated to paid for by the Authority). Costs of consumables shall be included in the Contractor’s Price Proposal.
4	At the Authority’s direction, the Contractor shall perform the Work required herein for any new Toll Facilities that may be implemented during the Operations and Maintenance Phase.

#### **1.1.2. I-405 CSC and WIC Facility**

The Authority will provide a new primary space for the I-405 CSC and WIC. The Contractor is required to operate these Authority provided Facilities as described in the sections below. The Contractor will have unlimited access to the Facility and may use expanded operational hours as needed to accomplish the Work. There is currently an operational OCTA Store WIC that will provide I-405 customer service that will be operated and staffed by OCTA.

The Contractor will not be charged rent/utilities for the use of Authority provided Facility and furnishings. Although the Facility will house other Authority contractors, the Contractor will be the point-of-contact and coordination point for all Maintenance, repair, service and janitorial issues related to the Facility regardless of location or origin,

5	The Contractor shall coordinate and facilitate tours of CSC Operations Facilities and guide tours.
6	The Contractor shall be the custodian of all the Authority’s fixed assets at the I-405 CSC and WIC facility (regardless of provider) and provide tracking and reporting as required.



7	The Contractor shall facilitate, coordinate and be the point of contact for all I-405 CSC Facility and Equipment related Maintenance and repairs that are not the fault of the Contractor (either the Authority will pay directly for the repairs or Authority will request that the Contractor pay and submit for payment through the weekly accounts payable batch process). All Contractor labor necessary for these services shall be included in the Contractor's Price Proposal and shall not be invoiced or be considered Additional Work. Repairs that are the result of Contractor actions shall be handled and paid for by the Contractor alone and the Authority shall be notified and kept informed.
8	For all third party coordinated work, the Contractor shall receive a minimum of three (3) quotes and submit to Authority for Approval/selection. Upon selection, Contractor shall initiate purchase order with the selected vendor.
9	<p>The Contractor shall provide the coordination and facilitation of various Authority directed meetings in the CSC Operations conference rooms as requested by the Authority, including but not limited to:</p> <ul style="list-style-type: none"> <li>ensuring conference room is clean and all furniture and Equipment is in working order;</li> <li>providing meals for meetings (submit for payment through the weekly accounts payable batch process) and</li> <li>attending meeting.</li> </ul>
10	The Contractor shall provide and install all internal workspace signage and name plates that are Americans with Disabilities Act (ADA) compliant.
11	The Contractor shall provide all office supplies required for CSC Operations and staff.
12	The Contractor shall provide all Equipment supplies, for example toner, paper, etc.

#### **1.1.2.1. OCTA Store WIC**

The OCTA Store WIC located in the same building as Authority's offices and is staffed by Authority employees. These Authority employees will be trained by the Contractor and the Contractor shall also provide escalation and operations support. There is no room for operational activities other than walk-in customer service at this site. OCTA Store WIC computers, peripherals and Equipment will be provided by the Authority.

Location Name	OCTA Store WIC
Address	600 S. Main Street, Orange CA 92868
Square Footage	N/A
Functionality	WIC

##### **1.1.2.1.1. Hours of Operation and Holidays**

13	The Contractor shall train and provide escalation and operations support for the Authority employees and customer relations staff.
----	--

14	The OCTA Store WIC shall be open 8 am- 5 pm Monday – Friday, Pacific Time.
15	The OCTA Store WIC shall observe the following Holidays:
	• New Year’s Day;
	• Memorial Day;
	• Independence Day;
	• Labor Day;
	• Thanksgiving Day;
	• Friday after Thanksgiving Day and
	• Christmas Day.
16	For any listed Holiday occurring on Saturday or Sunday, the OCTA Store WIC shall observe the Holiday on the same day as Authority’s other staff.
17	The Authority may close the OCTA Store WIC (for example, for emergency or weather conditions).

**1.1.2.2. New I-405 CSC and Walk-in Center (WIC)**

The CSC site is the sole Authority provided space for customer contact, CSC Operations and other processing required to meet the Requirements.

Location Name	Customer Service Center (CSC)
Address	Near the I-405 Corridor (exact location is TBD)
Square Footage	TBD
Functionality	All customer service and processing work

The CSC Facility shall meet the requirements below.

18	The Contractor shall staff and operate the CSC.
19	The Contractor shall provide Maintenance at this Facility and ensure that the Facility is professional in appearance and clean.
20	The Contractor shall exercise due care in the use, Maintenance and storage of the Authority-provided Facility, property and assets.
21	The Contractor shall comply with all requirements of the property lease and Facility license agreements (if applicable).
22	The Contractor shall promptly notify the Authority of any weakness in the security at the CSC Facility.

23	The Contractor shall utilize cameras in accordance with PCI/PII requirements and the Contractor's preferred operational and security approach. The Authority shall have access to view and copy the camera footage upon request.
24	The Contractor shall make all Authority-directed and Approved improvements to the CSC Facility, if any, as a combination of Additional Work, a pass-through cost, or submitted through the weekly accounts payable batch.
25	The Contractor shall provide a minimum of one Spanish-speaking CSR in the CSC Facility during all the hours of operation.
26	The Contractor shall equip the CSC customer contact center such that customers shall not hear cross talk when contacting the CSC by phone (crosstalk is any phenomenon by which a signal transmitted on one circuit or channel of a transmission system creates an undesired effect in another circuit or channel).

**1.1.2.2.1. Hours of Operation and Holidays**

The Authority require a high-level of customer service availability. The hours below are the minimum hours which the various elements of the CSC Operation must be staffed and operated.

27	The CSC contact center shall be open for calls, customer contacts and customer interactions from 8 a.m. to 6 p.m. Monday – Friday, Pacific Time.
28	The CSC shall observe the following Holidays: <ul style="list-style-type: none"> <li>• New Year's Day;</li> <li>• Memorial Day;</li> <li>• Independence Day;</li> <li>• Labor Day;</li> <li>• Thanksgiving Day;</li> <li>• Friday after Thanksgiving Day and</li> <li>• Christmas Day.</li> </ul>
29	For any listed Holiday occurring on Saturday or Sunday, the CSC shall observe the Holiday on the same day as Authority's staff.
30	The Contractor shall close the CSC upon Approval from the Authority (for example, for emergency or weather conditions).

**1.1.2.3. Serving Customers with Special Needs**

The Contractor shall work with the Authority and develop a I-405 CSC and WIC Facility design that meets the latest ADA standards for accessibility for both staff and customers and be of appropriate size to contain the staff, furniture, Equipment and supplies necessary to conduct operations described in this Scope of Work for the duration of the Agreement.

31	The Contractor shall report any Facility-related ADA compliance issues to the Authority immediately.
32	The Contractor shall identify and contract with a real-time translation service to serve customers whose language is other than English and Spanish, and whose language is not spoken by an available Contractor staff person. The service is to be provided on an as-needed basis and be available during all customer service hours.
33	The Contractor shall track the use of the translation service and shall provide tracking and accountability that identifies which account or document is related to each use of the service.
34	The Contractor shall provide and utilize Equipment to serve hearing-impaired customers in accordance with customer service best practices and applicable federal and state statute and requirements.

**1.1.2.4. Security and Facility Access Control**

35	At the CSC, the Contractor shall be responsible for administering the physical security system and the CCTV surveillance systems.
36	The Contractor shall provide and/or coordinate all security badges, parking, and administrative needs to access the building office space and for Authority staff or third-party vendors to work from the CSC location, as needed.
37	The Contractor shall ensure the I-405 CSC Facility are accessed only by authorized personnel with the appropriate privileges, and the Contractor shall ensure security is not breached. The Contractor shall be responsible for establishing procedures and policies and carrying out these procedures and policies for all visitors accessing the I-405 CSC Facility. The policies and procedures shall be Approved by the Authority.
38	The Contractor shall ensure access is limited to those functions required for the employees to perform their jobs while providing an appropriate segregation of access, based on employee responsibilities.
39	The Contractor shall maintain and provide to the Authority as requested an access matrix that lists all personnel with access privileges to the CSC Facilities. The matrix shall identify each employee's position, job functions, Facility access rights, and access rights. Visitors and guests who are not directly working on the Project must be approved by the Authority in advance.
40	The Contractor shall conduct reviews of the access matrix against the actual access for all employees in accordance with all security Requirements. Such reviews shall be conducted no less than quarterly or anytime at the request of the Authority. The Authority shall be invited to witness this review. The schedule for these reviews shall be included in the Operations Plan.

41	The Contractor shall ensure all Facilities used by the Contractor to perform any Work in support of the Agreement shall be established and maintained in compliance with the Security Standards throughout the Term of the Agreement.
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## **1.2. Operational Functions**

CSC Operations shall cover all functional areas as summarized below, including any required manual interactions or data entry that may be required of Contractor staff.

### **1.2.1. Account Management**

The Contractor shall provide the following services in an efficient and effective manner that allows customers to establish, manage and monitor their accounts.

42	The Contractor shall process all account opening activities, not otherwise performed by the customer, using the BOS, including but not limited to processing the customer application, customer acceptance of terms and conditions, Account Plan enrollment and qualification verification, payment processing, and transponder Fulfillment.
43	Using the BOS, the Contractor shall be responsible for the Fulfillment of any and all transponder types specified by the Authority.
44	The Contractor shall support the assigning, qualification verification and management of Account Plans, including non-revenue plans in the BOS, as Approved by the Authority,
45	In case of an incorrect or incomplete application, the Contractor shall contact the customer to facilitate successful account creation.
46	The Contractor shall support all activities related to account closing. In the event of closing the Contractor shall ensure that the customer's transponder(s) is changed to the appropriate status in the BOS and that all outstanding balances are paid or handled in accordance with the Business Rules, Operations Plan and SOPs prior to closing the account.
47	The Contractor shall update customer account information based on information received from entities including but not limited to:
	• customer or Authorized Designee;
	• Registered Owner of Vehicle (ROV) Lookup Provider;
	• United States Post Office;
	• Skip Trace Service Provider;
	• Banks (for replenishment);
	• Collection Agencies;
	• Print/Mail House Service Provider;
	• Lockbox Service Provider (if used by Contractor);

	<ul style="list-style-type: none"> <li>• Credit Card Update Service Provider and</li> </ul>
	<ul style="list-style-type: none"> <li>• Merchant Services Providers (MSPs).</li> </ul>

**1.2.1.1. Payments, Fees and Refunds**

Contractor will process payments at the CSC Facilities and over the phone as well as resolve and post any payments where the Lockbox Service Provider (if used by Contractor) was unable to identify the correct account. In addition, the Contractor will assist in the processing of third-party and pass-through payments.

48	The Contractor shall process all payments received from customers either directly or through the services of a Lockbox Service Provider.
49	The Contractor shall resolve and process Lockbox Exceptions if a Lockbox Service Provider is utilized. These exceptions are payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that they can be posted to a customer account as quickly as possible. If all research avenues have been exhausted and documented and the payment remains unassociated, the payment shall be tracked as an unidentified funds Case for future resolution.
50	The Contractor shall support processing of payments by Authority staff, customers, Franchise Tax Board, DMV, Interoperable partners and Collection Agencies and reconcile all payments to customer accounts and money deposited in the bank.
51	The Contractor shall apply any fees which require manual application using the BOS in accordance with Business Rules, Operations Plan and SOPs.
52	The Contractor shall research, respond to and process chargebacks.
53	After the pre-established time period determined by the Authority has expired, the Contractor shall issue refunds using the same channel the customer used, if possible, to make the payment, in accordance with the applicable Authority Business Rules, Operations Plan and SOPs.
54	In the case of check refunds, the Contractor shall use Positive Pay to deter check fraud.
55	The Contractor also shall ensure that Credit Card refunds are successfully processed.
56	The Contractor shall process, enter, print and send all refund checks and enter the resulting financial transactions into the Authority's financial accounting systems. The Contractor shall work with the Authority to setup all required accounts and processes to facilitate this entire process.
57	At the direction of the Authority and per the SOPs the Contractor shall enter payments into the Authority's financial accounting systems for direct payments to third parties for issuance by the Authority (for example, payments to third parties contracted directly by the Authority to provide services at the I-405 CSC Facility).

58	At the direction of the Authority and per the SOPs the Contractor shall enter payments into the Authority's financial accounting systems for reimbursement of pass-thru costs submitted by the Contractor for issuance by the Authority.
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**1.2.1.2. Account Plans**

The Authority has several Account Plans. These plans may be assigned at the individual transponder, or account level and each may have only one Account Plan assigned to it.

The Contractor shall be responsible for managing the various Account Plan programs including, enrollment in the program, eligibility verification, program membership renewal, and handling questions from customers regarding how the programs work and questions about specific transactions/trips under the programs. In addition to the Account Plans listed in this section, the Contractor should expect that plans may be added, deleted or modified over the course of the Operations and Maintenance Phase.

59	In accordance with Business Rules, Operations Plan and SOPs, the Contractor shall provide support for all the Account Plans, including new and modified plans.
60	For the Account Plans that require qualification, the Contractor shall verify qualification, scan and attach the qualification documentation prior to adding the plan(s) to the customer account.
61	For Account Plans requiring qualification, the Contractor shall remove the Account Plan and notify the customer if their eligibility requirements are no longer met.
62	For Account Plans which expire and require renewal, the Contractor shall verify qualification prior to renewing the plan on the customer account.
63	For Account Plans requiring payment, the Contractor shall collect appropriate payment from the customer as required by the enrollment process for the specific Account Plan.

**1.2.1.3. Non-Revenue Program**

The Authority allows for non-revenue passage on qualified users on specific facilities. Non-revenue passage may be assigned at the individual transponder, or account level. The Contractor shall maintain strict control when a transponder is issued to an account with a non-revenue plan and the reason for issuing it. The Authority must ALWAYS Approve the issuance of any non-revenue transponder.

The Contractor shall be responsible for managing enrollment in the program after obtaining the Authority's approval, verifying eligibility, handling questions from customers in regard to how the programs work and questions about specific transactions/trips under the programs.

64	In accordance with the Business Rules, Operations Plan and SOPs, the Contractor shall provide support for all of the Authority's non-revenue programs.
65	Prior to applying a non-revenue plan to a transponder, plate or an account, the Contractor shall obtain Approval from the Authority.

66	The Contractor shall maintain documentation of authorization for each non-revenue plan that has been assigned to a transponder or an account, and this documentation shall be available for review by the Authority at all times.
67	The Contractor shall manage non-revenue account participants certification that the transactions/trips on a non-revenue account are according to the agreement.
68	The Contractor shall perform random checks to confirm the transponder is being used on an authorized plate
69	The Contractor will administer non-revenue accounts that do not have transponders issued when directed by the Authority.

### **1.2.2. Privacy**

Privacy is of utmost concern to the Authority. The Contractor shall adhere to privacy and security Requirements set forth below and in the Security Standards and current law and regulations.

70	The Contractor shall develop and comply with all Approved Security Standards. Security Standards shall be updated to reflect changes in industry requirements, partner agreements and to address detected security weaknesses.
71	The Contractor shall not release information to anyone unless authorized by the Authority. The Contractor shall develop an SOP and approval process for the release of information.
72	The Contractor shall establish reasonable methods to verify the identity of customers prior to the release of any customer account information, and such methods shall be documented in the Operations Plan and SOPs.
73	The Contractor shall validate the identity of the customer prior to release of any image. This may include requiring a photo ID at a WIC.

### **1.2.3. Rental Cars**

The Authority's customers utilize rental vehicles which create transactions/trips that are initially assigned to a rental agency. The Authority may utilize Rental Car Service Providers and/or other designated entities for processing the rental car trips.

74	The Contractor shall work directly with customers, the Rental Car Service Provider and/or other designated entity to accurately process all rental car trips and resolve rental-related requests.
75	The Contractor shall enter into agreements with a Rental Car Service Provider for the purpose of providing a seamless and cost-effective solution for customers. The Authority shall have the right to review and approve all Rental Car Service Provider Agreements.
76	The Contractor shall provide the capability for a rental customer to post-pay a toll based on the Authority's Business Rules



77	The Contractor shall process affidavits of non-liability for rental/lease vehicles and pursue the named party.
78	The Contractor shall resolve charges by rental agencies for accountholders who incur a charge by rental agencies.

#### **1.2.4. Search Warrants, Subpoenas, Litigation and Public Records Requests**

The Authority receives requests for information and assistance from the law enforcement and legal communities as well as public records requests. These requests are highly time-sensitive and required sensitive and skilled handling.

79	The Contractor shall refer all requests, inquiries, subpoenas, search warrants, public records requests and official information requests to the Authority, in accordance with Business Rules, Operations Plan and SOPs.
80	In accordance with the Business Rules, Operations Plan and SOPs for handling and tracking of such requests, the Contractor shall gather and provide the information requested by the search warrant or subpoena upon receiving Approval from the Authority to do so.
81	The Authority may request that the Contractor compile data for subpoenas, search warrants, litigation matters, or other reasons. The Contractor shall respond to all requests from the Authority in a timely manner and in accordance with the Business Rules, Operations Plan and SOPs.
82	The Contractor shall assist the Authority's risk management department as directed in handling all claims and requests.
83	If the research will take longer than two (2) Business Days, the Contractor must advise the Authority.
84	The Contractor shall provide qualified personnel to support litigation, including providing testimony as an expert witness upon request from the Authority.

#### **1.2.5. Image Review Support**

Image collection and processing is a fundamental operation of the Authority's transaction/trip processing and Violation enforcement process. Vehicle license plate images are captured by roadside Equipment for all transactions/trips. If a valid FasTrak transponder is not identified, the images associated with that transaction/trip are reviewed by the ETTM System Contractor in a process called image review. These images and results of the review will be used to determine if a plate is associated with a FasTrak account or is a Violation. These will include rear license plate images as well as Region of Interest images. The ETTM System Contractor will identify the plate number, and Jurisdiction and Plate Type, if applicable, and provide this information to the BOS. The BOS will automatically Post the transaction/trips to the customer accounts, IOP or generate Violation Notices based on the license plate information received from the ETTM System Contractor.

##### **1.2.5.1. Image Review Quality Assurance**

The accuracy of the image review process is critical to the successful identification of the ROV. As part of the Quality Assurance (QA) process, the Contractor will conduct an accuracy review and audit

process of the manual and automated image review results. Using the ETTM System Contractor's-provided quality review tool, the Contractor will perform quality reviews on the results from each ETTM System Contractor to ensure that the ETTM System Contractor is accurately identifying a high percentage of license plates.

85	The Contractor shall provide for an adequate number of trained and qualified image review staff to handle the quality review volume.
86	The Contractor shall perform manual image review on a sample of at least 1% of all Image-Based Transactions/Trips per month that were provided by the ETTM System Contractor to determine accuracy of state, Plate Type, plate number and OCR confidence level.
87	The Contractor shall provide a report to the Authority of the audit and findings.
88	The Contractor shall correctly determine for each image set whether the ETTM System Contractor accurately processed the image and if not enter the correct plate information or reject code and provide the findings to the ETTM System Contractor.
89	The Contractor shall work with the Authority and ETTM System Contractor to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the State of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

**1.2.5.2. DMV No Registered Owner Information Return Quality Review**

Periodically image transactions/trips will be returned from the DMV source with no registered owner information. This can be a result from several factors including a license plate entered incorrectly. Part of the Contractor's responsibility will be to ensure the transactions/trips with no registered owner information were not caused by an incorrect license plate or improperly formatted DMV submission.

90	The Contractor shall review all image transactions/trips that are returned from the DMV source without registered owner information to ensure license plate entry was accurate.
91	The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to:
	<ul style="list-style-type: none"> <li>• plate number;</li> </ul>
	<ul style="list-style-type: none"> <li>• Plate Type, if applicable and</li> </ul>
	<ul style="list-style-type: none"> <li>• Jurisdiction.</li> </ul>
92	The Contractor shall work with the Authority and ETTM System Contractor to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the State of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

**1.2.5.3. Customer Inquiry Image Error**

Quality reviews are required to verify customer-disputed transactions/trips. Customers may contact the CSCs regarding a notification they received that incorrectly identifies them as a user of a Toll Facility. This can be a result from several factors including a license plate entered incorrectly. Part of the Contractor's responsibility will be to ensure the transactions/trips with no registered owner information were not caused by an incorrect license plate.

93	The Contractor shall also research and review images related to customer disputes and correct and reprocess.
94	<p>The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to:</p> <ul style="list-style-type: none"> <li>• plate number;</li> <li>• Plate Type, if applicable and</li> <li>• Jurisdiction.</li> </ul>
95	The Contractor shall work with the Authority and ETTM System Contractor to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the State of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

**1.2.6. Owner Identification**

Successful acquisition of accurate ROV information is critical to the success of the Authority's Violation enforcement program. The Contractor shall be completely responsible for establishing and maintaining both technical and operational relationships with the Registered Owner of Vehicle (ROV) Lookup Providers. The Contractor must ensure that the Authority is receiving the optimum number of current and accurate ROV matches.

96	The Contractor shall establish and maintain up-to-date agreements with each Registered Owner of Vehicle (ROV) Lookup Provider.
97	The Contractor shall provide the capability to track and follow the renewal Requirements for each Registered Owner of Vehicle (ROV) Lookup Provider. For example, a state may require that a DMV data access application form be submitted and approved annually.
98	The Contractor shall use online interfaces to the California, Arizona, Oregon and Nevada DMVs and other DMVs as they become available to manually look up individual license plates at the request of the Authority or in order to resolve customer disputes.
99	<p>The Contractor shall provide the following ROV-related activities, including but not limited to:</p> <ul style="list-style-type: none"> <li>• Establish and maintain a relationship with each Registered Owner of Vehicle (ROV) Lookup Provider;</li> <li>• Manage current contracts and service level agreements with each Registered Owner of Vehicle (ROV) Lookup Provider;</li> </ul>

	<ul style="list-style-type: none"> <li>• Monitor and evaluate the number of successful matches by Jurisdiction;</li> </ul>
	<ul style="list-style-type: none"> <li>• Monitor and evaluate the number of successful matches by Registered Owner of Vehicle (ROV) Lookup Provider;</li> </ul>
	<ul style="list-style-type: none"> <li>• Monitor and evaluate the number of successful matches by type of license plate;</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify issues with manual license plate identification and provide information to allow the ETTM System Contractor to correct the issue, including examples and training material;</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify issues with automatic license plate identification and provide information to allow the ETTM System Contractor to fix the issue and</li> </ul>
	<ul style="list-style-type: none"> <li>• Identify areas where the ROV match is lower than the average, investigate potential solutions and provide recommendations to the Authority.</li> </ul>
100	The Contractor shall coordinate with the ETTM System Contractor regarding BOS updates required due to any changes in ROV Requirements.
101	The Contractor shall monitor the success of ROV Lookup requests each month and when a change is made by the ETTM System Contractor reporting on the number of requests for which an ROV was obtained (successful lookup) and the number for which a request was not obtained (unsuccessful lookup) by Jurisdiction.
102	The Contractor shall identify Jurisdictions in which the percentage of successful requests decreases by more than five percent (5%) from the prior month and shall work with the appropriate Registered Owner of Vehicle (ROV) Lookup Provider to identify issues and solutions in collaboration with the ETTM System Contractor to ensure images are processed correctly.
103	The Contractor shall develop solutions to increase the ROV Lookup success.
104	The Contractor shall research and then input and manage the BOS Protected Plate data that associates an address with the agency names that are returned from the DMV or ROV Lookup Provider for license plates registered to a customer affiliated with federal, state or local agency that is allowed to shield addresses.
105	The Contractor shall facilitate the Protected Plate process of entering the correct agency address and resending the Violation Notice.

### **1.2.7. Customer Communications**

#### **1.2.7.1. Outgoing Customer Notification**

The Contractor is responsible for all necessary customer communication in accordance with the Operations Plan. At its discretion, the Authority will choose to produce some outgoing customer correspondence within its reprographics department.

106	The Contractor shall make contact with customers, by using the Authority's required method of communication about account management, general information, marketing, changes to account and privacy policy.
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107	The Contractor shall be responsible for printing, pdf creation, storing and associating with accounts, envelopes, mailing and postage for all communications.
108	The Contractor shall be responsible for acquiring and assembling all materials necessary for the mailing of transponders including, welcome kit, envelopes, sealing wafers, special inserts, stickers and mounting strips. The Contractor shall pay for mounting strips and other items not explicitly included in the pass-through list.
109	When directed by the Authority, the Contractor shall coordinate with the Authority's reprographics department for the production of outgoing correspondence. The Contractor shall be responsible for pick up, assembly and mailing.
110	The Contractor shall utilize the USPS/NCOA database services to validate a customer address prior to mailing correspondence.
111	The Contractor shall provide all postage meters and be responsible for payment of any postage meter fees.
112	The Contractor shall be required, at its own expense, to communicate to customers or the general public, including resending corrected notifications, any information related to issues or problems caused by the Contractor that affect customers, as further set forth in the Agreement.
113	The Contractor shall be responsible for printing, packaging and distributing printed information, developed by the Authority.
114	The Contractor shall manage the sending of e-blasts (sending of an email simultaneously to a group of people), developed by the Authority, to selected groups of customers or all customers using BOS functionality.

#### **1.2.7.2.      *Outgoing Communications (Future)***

The Authority may elect during the Term of the Agreement to offer video tolling for unregistered accounts (mailed invoices) as the first step of the Violations process. The Authority anticipates that video tolling transactions would be grouped in regular intervals, such as weekly or monthly, prior to mailing invoices to customers.

115	If directed by the Authority, the Contractor shall manage the mailing of invoices and the subsequent customer dispute and Violations process.
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#### **1.2.7.3.      *Incoming Customer Communication***

Incoming customer communication includes customer applications; replenishment payments; Violation payments; customer complaints; disputes; general public inquiries; legal notices (for example, bankruptcy, subpoena etc.); requests for account closures, account information updates and transponders. These communications will be received through all channels including but not limited to phone calls, faxes, texts, chat sessions, emails, Authority contacts, and mail.

Facilities and procedures are required to provide careful and efficient handling of all incoming customer communication, including the BOS providing for tracking of customer requests as Cases associated to the appropriate account(s).

116	The Contractor shall assume the responsibility of establishing all required post office boxes.
117	The Contractor is responsible for all mail pickup and transfer between Facilities as required.
118	The Contractor shall receive mail from the post office boxes for incoming mail.
119	All customer contacts handled directly through the Contractor staff shall be noted in the customer account in the BOS to maintain an accurate history of the customer's interaction with the CSC and Authority.
120	The Contractor shall provide a response for all correspondence received from the customer regardless of which channel the customer uses to communicate, including but not limited to, correspondence received by:
	• email;
	• fax;
	• text;
	• chat;
	• communication from the website's "Contact Us" feature and
	• delivered (USPS or by other means) correspondence.
121	The Contractor shall monitor and respond to customer requests received by phone, chat and text in real time when received during regular business hours.
122	The Contractor shall strive to provide first contact resolution and track the number of contacts resolved on first contact.
123	The Contractor shall encourage users receiving a Violation Notice to open a FasTrak account when they contact the CSC.
124	The Contractor shall ensure incoming correspondence (paper or electronic) is scanned (in the case of paper correspondence), saved and associated with the customer's account and any applicable Case(s). Non-customer correspondence shall also be scanned and catalogued for easy access. Paper copies shall be shredded, in accordance with security requirements, and policies agreed upon by the Authority, in adherence with the Security Standards and documented in the Operations Plan.
125	The Contractor shall use the same channel used by the customer or customers preferred channel to respond to the customer correspondence unless the Business Rules, Operations Plan or SOPs specify a different channel or if the nature of the customer issue necessitates the use of a different channel.

126	The Contractor shall monitor the communications channels used and frequency of all customer correspondence and recommend for consideration BOS configuration changes that improve the use of customer-friendly, efficient and cost- effective customer communication methods.
127	Some customer contact may involve questions about Image-Based Transactions/Trips. The Contractor shall utilize the BOS to view images related to the transaction/trip in question and if appropriate work with the ETTM System Contractor to correct issues.
128	All incoming mail shall be processed by the Contractor, in accordance with the SOPs and applicable standards, including but not limited to the Security Standards. Such requirements include but are not limited to: segregation of duties; date stamping the mail, categorization, scanning and/or saving into the BOS as Cases, and then assigning to the appropriate Contractor staff for processing.
129	The Contractor shall develop a workflow process that clearly documents the handling process for all incoming correspondence and communication through all channels, ensuring all incoming correspondence and communications are recorded, reviewed and properly routed (such as, operational correspondence, financial, contractual, etc.). This shall be documented in the Operations Plan and SOPs.
130	The Contractor shall ensure all correspondence handling processes and controls are documented and adhered to by operations staff. The Authority shall Approve the correspondence handling process and any changes to the handling process.
131	With the exception of customer requests regarding their own accounts, the Contractor shall only answer general inquiries as they relate to general information about the tolling facilities serviced and services provided by the CSC. All other inquiries and communications shall be escalated to the Authority as a Case as set forth in the Operations Plan and SOPs, unless the Contractor is otherwise directed in writing by the Authority. This includes inquiries from or communications with the media, government agents, Public Records Act requests and individuals representing organizations for purposes other than directly related to their own customer account.
132	The Contractor shall keep a record of all information requests as a Case, inform the Authority immediately of inquiries from these entities and direct such inquiries to the Authority, according to the Operations Plan.
133	Customers may contact the Contractor regarding issues the Contractor does not control, for example debris on the roadway, or general tolling questions. The Contractor shall collect the required information and handle the issue in accordance with the Operations Plan. The Contractor shall create a Case and track the issue until it is accurately resolved or handed off to the appropriate party responsible for resolution in accordance with the Operations Plan.

**1.2.7.4. Returned Mail Processing**

Returned mail shall be returned by the USPS and the Contractor shall update the BOS to reflect the status of the Notification and attempt to obtain a different address to mail the Notification to the customer if a forwarding address was not provided.

134	The Contractor shall scan each returned envelope and Notification and attach the scan to the correct customer account. Any physical pieces of returned mail received will follow the document disposal process after scanning.
135	The Contractor shall enter a forwarding address, if provided.
136	For addresses without a forwarding address, the Contractor shall mark the address as bad.
137	For bad addresses on FasTrak account correspondence, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.
138	For bad addresses on Violation Notices, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.
139	The Contractor shall utilize the USPS/NCOA database and Skip Trace services to find a customer address.
140	If a different, current address is provided, the Contractor shall update the address in the BOS and take the necessary steps for the BOS to re-issue the correspondence.

**1.2.7.5. Collateral Materials for Customers**

The Authority will provide the art work for all customer collateral, excluding system generated notices.

141	The Contractor shall print, deliver to and inventory all collateral materials according to the print specifications provided by the Authority.
142	The Contractor shall work with the USPS to obtain approval of printed material design to ensure compliance with the USPS requirements and to determine the lowest postage and staff handling effort for each mail piece type.
143	The Contractor shall modify/update as directed by the Authority and print the generic collateral material when changes to the information contained in the material necessitate a revision.

**1.2.7.6. Customer Request Management**

The BOS provides the capability to create, assign and manage requests made by customers or Authorized Users which cannot be completely resolved at the time of the request. These requests become Cases. Case management is the creation and management of Cases where a Case represents an activity or action required to satisfy the Authority, customer or general public need or inquiry.

144	Many customer issues or requests (such as, changing a customer's contact information), can be completely resolved at the time of the customer request. If the issue or request is completely resolved during the initial contact, the Contractor shall notate it in the customer's account.
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145	Any customer issue or request that cannot be completely and accurately resolved at the time of request shall be entered into the BOS as a Case, for management, tracking and reporting. Contractor's staff shall work open Cases through to final resolution in a timely manner as required in the Operations Plan and in accordance with the Performance Measures.
146	The Contractor shall accurately resolve and respond to customer issues and requests by the customer's preferred method of contact (email and mail) if available and according to the Business Rules, or by letter, email, mail, phone or text depending on the circumstances of the issue/request. The escalation procedures for customer issues and requests shall be described in the Operations Plan.
147	The Contractor shall respond to customer Cases according to the Business Rules, Operations Plan and SOPs. The CSC Manager responsible for Case management shall review the list of open Cases on a daily basis and shall make sure they are accurately resolved in accordance with and within the timeliness set forth in the Operations Plan and the Performance Measures. The Authority shall be notified immediately if there are any critical comments or issues that need immediate attention.
148	The Contractor shall be responsible for the resolution of all customer disputes, which are managed as Cases, in accordance with the Authority's policies, the Business Rules, Operations Plan and SOPs.
149	The Contractor shall select the proper case type and case resolution.
150	The Contractor shall utilize pre-approved auto responses for case resolution as appropriate.
151	The Contractor shall process dispute Cases (Investigative Review) involving adjustments to vehicle class, transaction/trip adjustments and reversals, reassigning of Violations, and other resolutions. Specific types of disputes shall require supervisor/manager review and approval, and all waivers, adjustments and reversals shall be in accordance with the Operations Plan and SOPs.
152	The Contractor shall place the disputed transactions/trips and Violation Notices on hold and release the hold in the BOS in accordance with Operations Plan and Business Rules.
153	The Contractor shall ensure all supporting documentation from the customer to resolve a dispute Case, as required by the Operations Plan and Business Rules, is obtained. If the customer does not provide the supporting documentation, the Contractor shall contact the customer in accordance with the timeframes defined in the Business Rules and Operations Plan.

**1.2.7.7. Ongoing Customer Satisfaction Surveys**

The Contractor shall work with their Customer Satisfaction Survey Provider Subcontractor to establish a program that provides customer feedback regarding the services the Contractor provides and the Express Lanes themselves.

154	The Contractor shall offer the survey opportunity to every customer each time they contact the CSC.
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155	The Contractor shall contract with a third-party Customer Satisfaction Survey Provider Subcontractor.
156	The Contractor shall create a customer survey program to measure the quality of the services they provide.
157	The Contractor shall modify the program as needed or as directed by the Authority.
158	The Contractor shall make contact with each customer who rates their experience with an overall score below an agreed upon threshold, as noted in the Operations Plan, within five (5) Business Days of the customer submitting the survey.
159	The Contractor shall monitor the customer surveys and provide a report to the Authority monthly.
160	The Contractor shall provide training on the survey tool to CSRs and other applicable personnel, including the purpose of the survey and the use of the survey tool.
161	The Contractor shall review survey results with CSRs and other applicable personnel during periodic meetings regarding individual's performance.
162	The Contractor shall provide the Authority convenient, electronic access to the up to date and historic survey results.
163	The Contractor shall include the customer survey results, including trending, in as part of the Monthly Operations Report.

**1.2.7.8. Customer Service Quality Monitoring and Reporting**

The Contractor interacts with the Authority's customers directly through many different channels including, but not limited to, in person at the WIC, over the phone, in writing via chat, text, email and responses to the Cases. The quality of these interactions and the service provided to its customer is of utmost importance to the Authority. In addition to Customer Satisfaction Surveys, the Authority expects the Contractor to develop and enact quality programs for all aspects of its operation and to train its staff to use deliberate care in each interaction and in serving the Authority's customers.

164	The Contractor shall ensure all CSC staff is trained in a manner which ensures excellent customer service in every customer interaction as measured by the Performance Measures.
165	The Contractor shall record the reason(s) for each contact (via all contact channels) by using Approved call wrap-up codes, entering account notes or other tracking approach to document the reason for the contact and memorialize the resolution or required next steps.
166	The Contractor shall monitor and score both live and recorded CSR calls for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
167	The Contractor shall monitor and score WIC CSR interaction, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.

168	The Contractor shall review and score all customer interaction channels, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
169	The Contractor shall review and score Case resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
170	The Contractor shall periodically monitor CSR screen navigations by remotely viewing the CSR's screen.
171	The Contractor shall track monitoring results and submit a monthly summary to the Authority as part of the Monthly Operations Report.
172	The Contractor shall track all escalated issues and resolutions and provide a monthly report to the Authority as part of the Monthly Operations Report.
173	The Contractor shall review information provided by the Authority upon their review of customer interaction and make any changes to improve customer service.
174	The Contractor shall provide the capability for the Authority to, at the Authority's discretion and without prior notification to the Contractor, monitor all live and recorded calls and all other types of correspondence.
175	The Contractor shall provide for review by the Authority all documentation related to the Contractor's quality program.
176	The Contractor shall conduct monthly quality monitoring calibration meetings for all Contractor staff who monitor customer interaction. The Authority shall be invited to attend these meetings.

### **1.2.8. Transponder Management**

The Authority will purchase transponders and the Contractor shall perform all other work related to transponders.

177	The Contractor shall manage all aspects of the transponder lifecycle. This includes but is not limited to:
	• initiate a PO request;
	• receiving into inventory;
	• testing transponders upon receipt and prior to issuing;
	• programming transponders as necessary, for example programming a standard 6c transponder to indicate that the vehicle is a motorcycle;
	• assigning and issuing to customers;
	• tracking transponders through their life;

	<ul style="list-style-type: none"> <li>• recycling (evaluating, cleaning and testing) for reissue;</li> <li>• managing transponder recalls;</li> <li>• warranty return and replacement and</li> <li>• disposal of transponders.</li> </ul>
178	Upon customer request, the Contractor shall assign, and mail transponder(s) to customers.
179	The Contractor shall support the distribution of transponders by the Contractor and US mail.
180	The Contractor shall include user guide and mounting instructions, mounting strips and other materials, as may be determined by the Authority to be required with the distribution of each transponder. The camera-ready copy of any transponder kit materials will be provided by the Authority.

#### **1.2.8.1. Transponder Inventory Management**

The BOS shall have a transponder inventory and management system that tracks and maintains transponder inventory, identifies and supports the transponder recall program and tracks transponder warranty.

181	The Contractor shall be responsible for ordering (if requested by the Authority), tracking and transporting the transponders at all CSC Facilities ,including the OCTA Store WIC.
182	The Contractor shall ensure that an adequate supply of transponders is available at all times. When the inventory reaches a pre-determined level identified in the Operations Plan the Contractor shall initiate order requests with the Authority, based upon existing inventory and forecasted requirements.
183	The Contractor shall ensure that an adequate supply of transponder mounting strips, user guides and mounting instructions, and shielded envelopes for transponders are available at all times to accommodate the transponders issued by the I-405 CSC and WIC and the OCTA Store WIC.
184	CSC issues multiple types of transponders, and as such, the Contractor shall be required to manage multiple types of transponders, possibly from multiple manufacturers/providers.
185	The Contractor shall receive shipments of transponders and shall reconcile shipment contents with electronic manifests provided by the transponder manufacturer. The waybill shall be reconciled against the original purchase order and scanned into the BOS for tracking and reconciliation purposes.
186	Monthly, the Contractor shall conduct a physical audit of the transponders that are under its physical control, including for the various transponder types and statuses and quantities. The audit shall compare the physical counts with the BOS counts by transponder type, location and status and completely reconcile any discrepancies. Transponder audit reports shall be included in the Monthly Operations Report.

187	The Contractor shall support the Authority in their periodic transponder audits that will be no more frequent than quarterly unless discrepancies are found.
188	The Contractor shall distribute new and recycled transponders, if applicable, using the FIFO inventory method.

#### **1.2.8.2. Transponder Testing**

Transponders shall be tested at multiple times in the lifecycle because transponders that are defective or not functioning reliably cause problems for the customers and the Authority and increase costs. The Authority will provide Equipment for the testing and programming of transponders.

189	The Contractor shall test one hundred (100) percent of the switchable transponders and ten (10) percent of each roll of sticker tags in each shipment when the transponders are received from the manufacturer. This testing shall include but not be limited to <ul style="list-style-type: none"> <li>• verifying that the transponders function and are correctly encoded;</li> <li>• reading the transponder serial number and verifying that the transponder label, barcode and internal coding are consistent and</li> <li>• ensuring the transponders can be read by simulating functionality on the road.</li> </ul>
190	The Contractor shall return the transponders which fail the testing to the manufacturer in accordance with the Operations Plan.

#### **1.2.8.3. Transponder Return to Manufacturer**

When transponders are determined to be defective but have not exceeded their manufacturer's warranty, they are returned to the manufacturer for replacement under warranty.

191	The Contractor shall track transponder warranty status and manage and resolve all warranty issues with the transponder manufacturer.
192	The Contractor shall be responsible for ensuring all transponders found to be defective and still under the manufacturer's warranty are returned to the manufacturer, according to the manufacturer's specified return material authorization (RMA) process.
193	The Contractor shall be responsible for storage of transponders subject to return until such time that the transponder manufacturer accepts the returned transponders.
194	The Contractor shall be responsible for shipment of the transponders identified for return to the manufacturer.
195	The Contractor shall track the warranty returns and confirm that the Authority receives the proper credit for the transponders returned under warranty in accordance with the Authority's agreements with the manufacturer.

### **1.2.9. Registration Hold**

California law allows toll agencies to place a hold on DMV vehicle registrations due to unpaid toll Violations. Based on the Business Rules, Operations Plan and SOPs, a Registration Hold may be utilized to enforce payment of a Violation(s).

196	The Contractor shall place and release Registration Holds using BOS functionality and in accordance with the Business Rules, Operations Plan and SOPs.
197	The Contractor shall coordinate with the applicable DMV or Third-Party Service Provider responsible for placing Registration Holds on the vehicle registrations and respond to any requests that the entity may have.
198	The Contractor shall respond to requests from customers related to Registration Holds and the process for releasing the Registration Hold(s).
199	The Contractor shall initiate a release of the Registration Hold(s) in real-time for customers who have satisfactorily resolved the condition(s) which caused the Registration Hold(s).
200	The Contractor shall reconcile and account for all payments to the DMV for Registration Hold placement and for any payments collected by the DMV from the Authority's customers.
201	The Contractor shall support all DMV Registration Holds or other enforcement methods allowed by interstate Interoperability enforcement agreements.

### **1.2.10. Collections**

This Collections process covers the assignment of past due amounts on delinquent FasTrak accounts, and delinquent Violations to the Collection Agencies provided by the Contractor. Non-payment of the Notice of Delinquent Toll Evasion Violation may result in the delinquent Violations escalating to Collections. Unpaid transactions/trips and fees on FasTrak accounts that are delinquent may also escalate to Collections.

Delinquent Violation debts are placed with a Collection Agency.

The process of assigning unpaid transactions/trips, Violations, fees and penalties to Collections is called Collections Placement, and is an automated BOS process. However, based on the Business Rules, each Collections Placement may require a quality review and/or the Authority's approval before the Collections Placement file is submitted to the applicable Collection Agency.

Prior to a Collections Placement, the Authority may require the Contractor to perform outgoing calls or mail a pre-collections letter to alert an individual of an impending Collections Placement and allow one more chance to make a payment.

The Collection Agencies will provide regular collection activity updates to the BOS by electronic interface. Payments for transactions/trips in Collections can be made to the Collections Agency or to the CSC. The Contractor will manage, monitor and reconcile the transfer of Collections Placement files and revenue collected by the Collection Agencies and the CSC.

202	The Contractor shall provide the Collection Agencies.
203	The Contractor shall support outbound collections calls and letters prior to Collections Placements.
204	The Contractor shall verify that the BOS is performing Collections Placements according to the Business Rules, Operations Plan and SOPs.
205	While it is expected that the Collection Agencies will be the primary payment processors for debts in Collections, the Contractor shall accept payments for amounts in Collections.
206	The Contractor shall verify that the Collection Agencies are accurately updating the BOS and shall work directly with the Collection Agencies to completely and accurately resolve any issues in a timely manner, including identification and resolution of any discrepancies between what the BOS identifies is in Collections and what Collection Agencies say is in Collections.
207	Using the BOS and other data sources as necessary, the Contractor shall perform reconciliations including but not limited to: <ul style="list-style-type: none"> <li>• reconcile files received from the Collection Agencies to the BOS to ensure the files received from the Collection Agencies are correctly Posted to the BOS;</li> <li>• reconcile outstanding Collections balances per the BOS to outstanding Collections balances per the Collection Agencies on a monthly basis, and research and resolve discrepancies and</li> <li>• reconcile amounts collected by the CSC in relation to Collections Placements sent to the Collection Agencies. There should be no duplicated revenue collections on the same Collections Placement.</li> </ul>
208	The Contractor shall review and verify invoices submitted by Collection Agencies, along with required backup documentation and providing feedback to the Authority.
209	The Contractor shall provide a financial reconciliation between the BOS and the Collection Agencies for a specific customer account at the Authority's request.
210	The Contractor shall provide assistance to the Collection Agencies regarding the research of disputes when customers contact the Collection Agencies and shall coordinate the resolution with the Collection Agencies.
211	The Contractor shall update the BOS when notified by a Collection Agency that a customer has been allowed to establish a settlement arrangement to pay a lesser amount or to make periodic payments.

### **1.2.11. Bankruptcy**

The Contractor shall receive and process Notification of bankruptcies related to amounts owed to the Authority by customers. The laws related to bankruptcy are very specific and must be followed closely from initial Notification through final resolution and potentially transaction Write-Off.

212	The Contractor shall comply with bankruptcy laws.
213	The Contractor shall document receipt of Notification of bankruptcy within the BOS and place applicable transactions on hold pending the outcome of the bankruptcy process.
214	The Contractor shall remove DMV Holds for trips subject to bankruptcy proceedings.
215	The Contractor shall communicate with the Collection Agencies, as necessary, related to a bankruptcy Notification.
216	The Contractor shall discontinue collection efforts with the Franchise Tax Board for trip subject to bankruptcy proceedings.
217	The Contractor shall update the status of the bankruptcy in the BOS upon notification of changes or the resolution and perform the necessary steps to ensure that the BOS accurately reflects the outcome including but not limited to dismissing amounts due, processing Write-Offs and reinstating Violations.
218	The Contractor shall send copies of bankruptcy Notifications to the Authority.
219	The Authority will notify the Contractor of any bankruptcy proceedings for which the Authority receives Notifications. The Contractor shall update the status of the bankruptcy in the BOS accordingly and notify the applicable Collection Agency.
220	The Contractor shall follow up with, provide information and respond to requests from all parties including but not limited to customers, attorneys, the bankruptcy courts and the Authority related to a customer bankruptcy proceeding.

#### **1.2.12. Violation Investigative Review (Disputes), Administrative Review and Hearing Support**

When a violator receives a Violation Notice, they can contest (dispute) it. Disputes shall be tracked as Cases in the BOS. The Contractor shall follow California Vehicle Code Section 40250 et seq. with respect to disputes and Administrative Review Hearings.

221	The Contractor shall manage disputes, subsequent resolutions, and support Administrative Reviews.
222	The Contractor shall receive, research, document and resolve all customer disputes.
223	The Contractor shall investigate all customer disputes to determine if the contesting person (ROV) is responsible for the Violation.
224	The Contractor shall mail the results of the investigation to the person who contested the Violation.
225	When the person contesting a Violation is not satisfied with the results of the Contractor's investigation, they may request an Administrative Review Hearing. The Contractor shall schedule all Administrative Review Hearings and collect payment from the customer in accordance with California Vehicle Code and Authority's Business Rules and SOPs.



226	The person contesting a Violation can request a waiver of deposit due to financial hardship. The Contractor shall verify that the person is eligible for financial hardship via verification of their W-9 or other Authority Approved process.
227	The Contractor shall adhere to the California Vehicle Code Violation dispute process and Authority policies.
228	Once an Administrative Review Hearing is requested, the Contractor shall again review the dispute and organize all related information, using primarily the Evidence Package reports from the BOS, and provide the Authority and the Administrative Hearing Officer with all relevant documentation in a comprehensive Evidence Package.
229	The Contractor shall develop the processes, for Approval by the Authority, for the hiring and scheduling of Administrative Hearing Officers in compliance with all applicable statutes and manage the entire Administrative Review and Hearing process.
230	The Contractor shall be readily available in-person to the Contractor-hired Administrative Hearing Officer during the Administrative Review Hearing. Contractor personnel shall be available and support the process per the SOPs and as requested by the Authority.
231	The Contractor shall provide a Spanish-speaking interpreter to attend and support all applicable Administrative Review Hearing.
232	The Contractor shall implement all required actions resulting from the Administrative Review Hearing process.
233	The Contractor shall offer and process reduced Violation penalties in accordance with the Business Rules, Operations Plan and SOPs.
234	The Administrative Review Hearing will result in either the Violation(s) being dismissed or violator being required to make payment. The Contractor shall make adjustments to the balance due and/or collect payment from the customer and provide notification.

### **1.2.13. Banking and Lockbox Services**

The banking and merchant services for the CSC are comprised of the following:

- **Banking Services** – Banking Services are comprised of the Authority provided depository accounts into which merchant and other deposits are made. The Authority has selected and contracted with a Banking Services provider.
- **Merchant Services** – Contractor-provided merchant services are comprised of the payment processor and acquiring bank.
- **Refund Account(s)** – Bank Account(s) from which customer refunds are made. The Refund Account(s) is part of the Authority's Banking Services.
- **Lockbox** – The Contractor may elect to provide and use a Lockbox Service Provider to receive and process all mailed payments related to customer accounts and Violations.

The Authority will retain ownership of the Bank Accounts and will provide the Contractor with the necessary access to act and transact on behalf of the Authority. The Contractor will provide the Merchant Service Provider; the Authority will be the merchant of record for all Merchant Service Providers.

235	The Contractor shall reconcile the BOS reports to the bank, all customer payments, Lockbox (if applicable) and merchant accounts on a daily basis.
236	The Contractor shall utilize the Authority's Banking Services and Contractor's MSPs to fulfill the requirement(s) of the bank and MSPs.
237	The Contractor shall utilize and manage the Authority refund process and associated Refund Account(s) to disburse customer refunds which require the issuance of a check. The Contractor shall reconcile and report on the refund activities.
238	The Contractor shall coordinate with the Authority-provided armored services with daily pickup at the I-405 CSC and WIC.
239	The Contractor shall manage a Refund Account from which they will issue checks for the Authority.
240	The Contractor shall issue all refunds, including checks.
241	The Contractor shall process any Lockbox Exceptions transmitted by the Lockbox Service Provider within the same day the payment was received from the customer.

#### **1.2.14. Closing Procedures**

242	The Contractor shall perform closing procedures in an accurate and timely manner in accordance with the Performance Measures, including but not limited to:
	<ul style="list-style-type: none"> <li>perform Posting Day close to finalize counts and revenue for the Revenue Day;</li> <li>perform month-end close on the last Posting Day of the calendar month and</li> <li>perform year-end close on the last Posting Day of the Fiscal Year.</li> </ul>

#### **1.2.15. Escheatment (unclaimed property)**

243	The Authority follows statutory requirements with regard to uncashed checks issued as a form of refund to customers, violators and other funds deemed unclaimed by the Authority.
244	The Contractor shall work with the Authority to follow the Escheatment process.
245	The Contractor shall maintain a register of all uncashed checks. The register shall indicate an unique identification number, such as account number or violator ID number, the name, address, check #, amount of check, check issue date, reason for check issuance, check reversal date, and reason for reversal, if applicable.
246	The Contractor shall provide the Authority with lists of the uncashed checks eligible for Escheatment and those that have completed the Escheatment process.
247	The Contractor shall provide information and conduct research as requested by the Authority related to uncashed checks and unclaimed funds.
248	The Contractor shall reissue checks at the Authority's direction.

249	The Contractor shall identify the funds as Escheated in the BOS as directed by the Authority.
250	Prior to Escheatment, the Contractor will advertise a Notice of Publication of Unclaimed Funds that will run once a week for two (2) weeks.
251	When no inquiries are received, the checks will revert back to the Authority. The Authority will provide the Contractor with a list of funds to either reissue a check for or to revert back to the Authority.

#### **1.2.16. Write-Offs**

The BOS will provide the capability for the Contractor to monitor, conduct, and report on Write-Offs of unpaid balances or aged amounts.

252	The Contractor shall develop a Write-Off procedure that complies with legislation and the Authority's policies.
253	Contractor shall configure BOS to perform automatic Write-Offs based on the Business Rules for unpaid balances which meet the Approved criteria.
254	Contractor shall monitor the automatic Write-Offs performed by the BOS and report on these to the Authority on a monthly basis.

#### **1.2.17. Reconciliations**

The Contractor shall be responsible for the management of the financial operations of the CSC, including the balancing and reconciliation of all Financial Transactions.

255	The Contractor's balancing and reconciliation activities, which shall be provided to the Authority on a weekly and monthly basis, shall include but are not limited to:
	• perform daily balancing and close-out of all shifts;
	• perform daily balancing of all mailed-in payments;
	• perform daily and monthly reconciliation of all Bank Accounts;
	• perform daily and monthly reconciliation of all merchant account activity and fees, including but not limited to Credit Cards and Debit Cards and
	• perform daily and monthly reconciliation of all Lockbox activity.
256	The Contractor shall develop a process for identifying, reporting and resolving all errors and discrepancies, which shall be included in the Operations Plan.
257	The Contractor shall perform other financial and transactional reconciliations in an accurate and timely manner, to be provided to the Authority for review, in accordance with the Performance Measures, including but not limited to:
	• perform daily, monthly and annual reconciliation of all transactions;

	<ul style="list-style-type: none"> <li>perform daily, monthly and annual reconciliation of all Interoperable Agency transactions;</li> </ul>
	<ul style="list-style-type: none"> <li>perform daily, monthly and annual reconciliation of all transactions placed at a Collection Agency;</li> </ul>
	<ul style="list-style-type: none"> <li>perform daily, monthly and annual reconciliation of all Third-Party Service Provider payments and</li> </ul>
	<ul style="list-style-type: none"> <li>perform quarterly reconciliation and analysis of accounts receivable for the purpose of recording a provision for uncollectible accounts receivable journal entry.</li> </ul>
258	The Contractor shall perform monthly reconciliations of all Financial Accounts, including roll-forward schedules from prior periods, which will be provided to the Authority for review.
259	The Contractor shall reconcile all payments received from all payment channels within one day of posting to the system. This shall include the identification and resolution of all reconciliation discrepancies.
260	The Contractor shall perform reconciliations, including but not limited to:
	<ul style="list-style-type: none"> <li>detailed reconciliation of transactions/trips and revenue, by facility and transaction type;</li> </ul>
	<ul style="list-style-type: none"> <li>Bank Accounts;</li> </ul>
	<ul style="list-style-type: none"> <li>refunds by refund type;</li> </ul>
	<ul style="list-style-type: none"> <li>prepaid account balances;</li> </ul>
	<ul style="list-style-type: none"> <li>transponder deposits;</li> </ul>
	<ul style="list-style-type: none"> <li>aged accounts receivable;</li> </ul>
	<ul style="list-style-type: none"> <li>fees revenue;</li> </ul>
	<ul style="list-style-type: none"> <li>penalties;</li> </ul>
	<ul style="list-style-type: none"> <li>Write-Offs;</li> </ul>
	<ul style="list-style-type: none"> <li>payment transactions and</li> </ul>
	<ul style="list-style-type: none"> <li>other cost items and revenues.</li> </ul>

### **1.2.18. Financial Reporting**

The Authority reports on a Fiscal Year beginning July 1 and ending June 30. As a public-sector entity, the Authority's basic financial statements are presented in compliance with pronouncements in accordance with the Governmental Accounting Standards Board (GASB) and in conformity with GAAP.

While most Financial Transactions are captured automatically through the BOS, some level of manual entry may be required. Reports, including electronic reports and data exports from the BOS, are the primary means by which the Authority will capture financial information related to the operation of the CSC. The financial reports consist primarily of various BOS-generated reports which summarize the financial and operational performance of the CSC. While most reports are automated, the Contractor is expected to provide manual reports for information that is not automated as requested by the Authority.

261	The Contractor shall utilize BOS-generated reports Approved by the Authority to fulfill reporting needs as described in the Reporting and Reconciliation Plan.
262	The Contractor shall provide all financial reconciliation and reports to the Authority in a timely manner, but no later than the date(s) prescribed in the Performance Measures.
263	The Contractor shall provide all data to the Authority in compliance with pronouncements issued by GASB and in conformity with GAAP.
264	The Contractor shall perform ongoing review of reports at a frequency sufficient to guarantee all reports balance and reconcile to related reports.
265	The Contractor shall balance, reconcile and verify the content of the reports, including but not limited to:
	• daily receipts report (by payment method, payment channel and transaction type, including disbursements);
	• monthly receipts report (by payment method, payment channel and transaction type, including disbursements);
	• bank reconciliations;
	• prepaid toll balance;
	• refunds;
	• payments to DMVs and other Registered Owner of Vehicle (ROV) Lookup Provider for lookup and Registration Hold fees;
	• negative balance prepaid customer report;
	• transaction aging report;
	• customer aging report for Violation Notices, fees, etc.;
	• monthly adjustment report as required by the Authority and
	• transponder inventory reconciliation.
266	The Contractor shall enter journal entries, check payments and other Financial Transactions into the Authority's general ledger systems on a daily, weekly and monthly basis.

267	The Contractor shall, at the request of the Authority, provide new vendor setup, including soliciting and providing W9 of the new vendor and setting up vendor information in the Authority's accounting systems.
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**1.2.18.1. Audits**

**1.2.18.1.1. SSAE-18 Type II Audit**

The Contractor shall engage an independent auditor to perform an SSAE-18 Type II audit to cover the operations of the CSC and provide the resulting SOC1 report to the Authority. The auditors have a fiduciary duty to the Authority; however, the coordination of the audit, including managing the audit and related requests, managing interviews with staff, and the preparation of any supporting documentation or schedules shall be the responsibility of the Contractor.

268	The Contractor shall engage an independent auditor, which has been Approved by the Authority to perform the SSAE-18 Type II audit.
269	The selected independent auditor shall be experienced and widely recognized in the United States for performing these types of audits. (i.e., the selected audit firm shall perform a minimum of ten (10) such similar audits each year).
270	The Contractor and auditor shall mutually agree on an audit plan, which shall be provided to the Authority for Approval, including regularly scheduled meetings.
271	The audit shall cover the period of April 1 to March 31 annually, supplemented by a bridge letter covering the period of April 1 through June 30 annually, with the first year covering the Agreement start date through March 31 and the last year covering April 1 through the end of the Agreement Term. The audit periods are deliberately set to include an offset and a bridge letter so that the Authority's auditors have the SOC1 report in time to start their audit work.
272	The final SOC1 report shall be provided to the Authority no later than June 30 each year.
273	The Contractor shall comply with all changes to requirements under SSAE-18; in the event SSAE-18 is replaced by a new standard, the new standard shall apply and in the event the SOC1 is replaced by a new reporting form, the Contractor shall submit the new reporting form.
274	The Contractor shall promptly comply with all audit requests.
275	The Contractor shall promptly notify the Authority of any concerns raised by the auditors, including but not limited to:
	<ul style="list-style-type: none"> <li>any asserted weaknesses;</li> </ul>
	<ul style="list-style-type: none"> <li>limitations on audit scope;</li> </ul>
	<ul style="list-style-type: none"> <li>the auditors' inability to carry out the audit;</li> </ul>
	<ul style="list-style-type: none"> <li>the Contractor's inability to carry out the audit;</li> </ul>
	<ul style="list-style-type: none"> <li>any projected cost overruns and</li> </ul>

	<ul style="list-style-type: none"> <li>time delays in scheduled audit completion.</li> </ul>
276	If there is a material change to the Contractor's operations, the Contractor shall update the initial SOC 1 report and include it on the update to ensure the Contractor is in compliance with the SSAE-18 attestation standards.

#### *1.2.18.1.2. Quality Audit*

The Contractor shall conduct daily quality audits. These audits shall encompass all aspects of the CSC Operation as described in the Quality Plan. The Contractor must develop an audit report and provide it to the Authority monthly.

277	The Contractor shall conduct daily quality audits in accordance with the Contractor's Quality Plan. All deficiencies identified through the audit process shall be successfully corrected by the Contractor. The findings in the audits will result in a monthly report to the Authority.
278	The Contractor shall institute any corrective measures and procedural or operational changes as requested and Approved by the Authority as a result of audits at no additional cost to the Authority. Items identified by the Authority as critical shall be corrected immediately. Other items identified by the Authority as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.

#### *1.2.18.1.3. Other Audits*

Other aspects of the CSC are subject to audit by the Authority and/or third parties as well as the Contractor. Results of audits conducted by the Authority and/or third parties, including any prepared audit reports, will be shared with the Contractor, as applicable.

279	The Contractor shall conduct and/or support the Authority in any Contractor required or Authority led audits relating to the Authority's facilities, toll collection, BOS, and CSC Operations. For example, TIFIA, annual external audits, biennial and triennial audits.
280	<p>The Contractor shall conduct audits in accordance with the Quality Plan. These audits may include but are not limited to:</p> <ul style="list-style-type: none"> <li>internal control procedures;</li> <li>revenue/transaction reporting;</li> <li>physical inventory audit;</li> <li>security audits;</li> <li>financial audit;</li> <li>facility inspections and</li> <li>Authority processing and performance.</li> </ul>

281	As the accountant for the CSC Operations, the Contractor shall supply the Authority's auditor(s) and management with information and schedules as requested and respond to requests from the Authority or its auditors in a timely manner.
282	The Contractor shall provide the Authority and their designee(s) access to the CSC for the purpose of conducting their audit(s).
283	The Contractor shall support the Authority by running reports and making all requested documentation available for review.
284	The Contractor shall support the Authority by making Contractor employees, consultants and other involved subcontractors and parties available for interview by auditors.
285	The Contractor shall successfully correct all deficiencies identified through the audit process.
286	The Contractor shall institute all corrective measures and procedural or operational changes as requested and Approved by the Authority as a result of audits at no additional cost to the Authority. Items identified by the Authority as critical shall be corrected immediately. Other items identified by the Authority as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.

#### **1.2.19. Revenue Management**

287	The following forms of payment will be accepted by CSC. The Contractor shall account for, credit to the customers' accounts and deposit into the appropriate Bank Account(s) all payments in accordance with the Performance Measures:
	• checks (including personal, business, e-check, certified and cashier's checks);
	• money orders;
	• cash (United States currency);
	• Credit Card, including mobile payments and EMV chip integrated circuit card (at in-person locations only) and
	• Debit Card (PIN-less debit only).
288	Using the BOS, the Contractor shall accept payments from customers who use any combination of the above payment methods. For example, customers can choose to pay a portion of their balance using a check and another portion using a Credit Card, or using two (2) or more different Credit Cards.
289	The Contractor shall deposit and post to customer accounts all payments received from all payment channels within the same day the payment was received from the customer.
290	The Contractor shall deposit any checks received by the CSC electronically using bank-specified check scanners, which shall interface with the bank software.
291	The Contractor staff shall manually key in check information in the event of a check scan failure.



292	The Contractor shall manually apply in the BOS any fees which are not automatically applied through the BOS, in accordance with the Business Rules, Operations Plan and SOPs. Examples of these fee types are a returned check fee or a one-time paper statement fee, which must be selected by the user.
293	The Contractor shall post all customer payments received by operations into the BOS.
294	The Contractor shall develop a full-cycle chain of custody process (such as, how payments transfer from the mail room to an Authority employee for Posting to the bank for deposit) for all payments and cash balances which shall be included in the Operations Plan.
295	<p>The Contractor shall develop and implement money handling, counting and storage procedures that cover items including but not limited to:</p> <ul style="list-style-type: none"> <li>responsibility for all funds until custody of the funds has passed to the Authority;</li> <li>all monies (checks and cash) collected shall be stored in a safe in a secure area until collected or deposited by the bank;</li> <li>all money handling, counting and storage shall be performed in a secure area and under dual control at all times and</li> <li>cash shall not be transported through public areas without appropriate security.</li> </ul>
296	The Contractor shall deposit all monies received into the Authority's Bank Accounts.
297	On a daily basis, the Contractor shall reconcile, balance and report to the Authority all bank deposits of funds received.
298	The Contractor shall develop and implement customer refund procedures in accordance with the Business Rules to be included in the Operations Plan.
299	<p>The Contractor shall remit monies to and collect monies from various parties in accordance with the Performance Measures and Operations Plan. Such remittances may be made by check, wire transfer, or book transfer, and may be made by either the Contractor or the Authority, in accordance with the Operations Plan and shall include but are not limited to payments to and from:</p> <ul style="list-style-type: none"> <li>customers;</li> <li>the Authority;</li> <li>Interoperable Agencies;</li> <li>Lockbox Service Provider;</li> <li>DMV;</li> <li>Collection Agencies and</li> <li>Third-Party Service Providers.</li> </ul>

### **1.2.20. Paper Document Storage**

The CSC receives and generates paper documents over the course of daily business. These hard copy documents are scanned into the BOS for easy retrieval and association with applicable accounts and Cases on a timely basis and paper documents are shredded. It is anticipated that document storage needs will be minimal and any required space will be provided by the Authority at the I-405 CSC Facility.

300	The Contractor shall provide and Approved approach for the handling, storage, scanning and shredding of all paper documentation in accordance with the Security Standards.
301	The Contractor shall scan all paper documentation into the BOS associating each appropriately with applicable account(s) and Case(s).
302	The Contractor shall redact information in accordance with the Security Standards, Business Rules, Operations Plan and SOPs on the document prior to scanning the paper documentation into the BOS.
303	The Contractor shall shred and dispose of all paper documentation after it has been successfully scanned in accordance with the Security Standards.

### **1.2.21. Interoperability**

The Authority is already Interoperable with the other toll agencies in California. Over the life of this Agreement, it is likely that Interoperability will expand to include all U.S. states and regions. The Authority will participate in regional and national Interoperability.

The Contractor will work in cooperation with all Interoperable Agencies and CSC facilities, and support the Authority with efforts to provide for efficient and successful operation.

304	Working with the Interoperable Agencies, the Contractor shall facilitate the resolution of interface related issues or errors.
305	The Contractor shall provide financial and transactional reconciliation with Interoperable Agencies.
306	The Contractor shall participate in periodic teleconferences and meetings related to Interoperability and other Interoperability organizations.
307	The Contractor shall provide a point of contact for resolution of issues arising with Interoperable transactions/trips and customer service including dispute resolution.
308	The Contractor shall monitor and manage the electronic file transfers within the BOS as required.
309	The Contractor shall manage and reconcile Interoperable receivables and payables.
310	The Contractor shall provide annual Credit Card rate analysis for the Interoperable Agencies and facilities with which the OCTA I-405 will have an agreement to net out Credit Card fees from revenue. The Contractor shall prepare the netting schedule that provides the net amount that the agencies/facilities transmit to each other.

## **Exhibit B**

### **Volume IV: Performance Measures**

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TABLES

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NO TABLE OF FIGURES ENTRIES FOUND.

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# **1 INTRODUCTION**

The following describes the Performance Measures for the BOS and CSC Operations. The Authority requires the Contractor to continuously operate the BOS and CSC in accordance with the standards of performance identified in Requirements and these Performance Measures.

The Contractor's performance will be both self-monitored and monitored by the Authority and is rated based on the Contractor's ability to meet these Performance Measures, which reflect the minimum performance expected of the Contractor to provide timely and reliable BOS processing and well as the minimum level of customer service.

## **1.1 BOS Performance Measures**

BOS performance will be measured in categories that align with the primary functions of the BOS. The specific method of measuring the Contractor's performance will vary depending on the individual Performance Measure, but will generally be measured either by event, per calendar/Business Day or on a monthly basis. If a Performance Measure is not met, the Contractor is assessed an Adjustment to the monthly fee, based on the calculations described in the table. For some categories, the amount by which the Performance Measure is missed matters in determining how well the BOS is performing, therefore the non-compliance fees increase as the deviation from the Performance Measure increases.

Table 1, below, provides the BOS Performance Measures, measurement calculations and Adjustments for the Contractor. The Contractor's monthly invoice will be adjusted by the percentages and amounts shown. Attachment D: Sample KPI Adjustments provides sample scenarios for calculating the monthly KPI Adjustments.

Table 1: BOS Performance Measurers and Adjustments

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
1	BOS availability - <b>Priority 1</b>	Calculates BOS availability if a <b>Priority 1</b> event has occurred during the period.  Monthly measurement of 99.80% uptime target.  Availability shall be calculated as follows:  $\text{Availability} = (1 - [\text{Total number of hours of Priority 1 downtime per month} / \text{Total hours in the month}]) * 100$	A 3% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%;  A 5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and  A 10% Adjustments to the monthly maintenance fee for availability below 99%.
2	BOS availability - <b>Priority 2</b>	Calculates BOS availability if a <b>Priority 2</b> event has occurred during the period.  Monthly measurement of 99.80% uptime target.  Availability shall be calculated as follows:  $\text{Availability} = (1 - [\text{Total number of hours of Priority 2 downtime per month} / \text{Total hours in the month}]) * 100$	A 1.0% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%;  A 1.5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and  A 3% Adjustments to the monthly maintenance fee for availability below 99%.
3	Interface data and file exchanges	Per individual data or file exchange that is inaccurate, has incomplete data, is not technically compliant with the ICD, or is not provided/retrieved in the required time frame, per the ICD and/or agreed to operating procedures. Applies to all Interfaces other than Contractor-provided Third-Party Service Providers.	\$250
4	Interface acknowledgements	Per individual event of a scheduled data or file exchange that is not acknowledged in the typical or required time frame, per the ICD and/or agreed to operating procedures.	\$250
5	Interface exception handling	Per individual data or file exchange where and exception information is not provided to the source system and the designate contact is not notified in the required or typical time frame, per the ICD and/or agreed to operating procedures. Exceptions are inaccurate information identified during data validation or an anomaly that prevents data, files and images from being properly processed.	\$250
6	Trip Posting	Per hour or partial hour in which files are not accurately posted within two (2) hours of receipt.	\$1000
7	Job Process	Per discrete event where a BOS Software job and/or process does not correctly run and complete within the expected time. Expected time = scheduled time + maximum run time.	\$250 per event and up to 60 minutes of delay. \$100 for each partial additional hour of delay.
8	Account replenishments	Per Calendar Day in which all eligible accounts with a valid payment mechanism are not replenished within one (1) hour of reaching the low-balance threshold.	\$2,500 Escalates by \$2,500 each subsequent Calendar Day up to a maximum of \$10,000 per Calendar Day

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
9	Sending of customer-initiated, non-batched email or text	Per Calendar Day for each type of automated Notification that is not correctly sent within 15 minutes of eligibility.	\$500
10	Mailing of USPS Notifications	Per subsequent Calendar Day in which eligible customer Notifications are not sent within three (3) Calendar Days.	\$500
11	Reporting	Per Calendar Day for each report that is not generated by the BOS, delivered and/or made available with accurate data per the reporting schedule.	\$100
12	Monthly system Maintenance reports	Per subsequent Business Day that the monthly report is not generated within the required time frame.	\$500
13	Respond to agency requested information	Per subsequent Business Day that Contractor does not provide acknowledgement and status of requested information within two (2) Business Days.	\$500
14	Following the Approved Change management process	Per event of Contractor not following Approved Change management process and required testing before making a Change to the BOS Hardware or Software.	\$5,000
15	Log, track and report all BOS failures or reported System issues.	Per event of Contractor not following Approved process and accurately logging event within the PMMS.	\$250
16	Acknowledgement of BOS failure and degradation notifications by Contractor	Per event without intentional human acknowledgment (recorded within the PMMS) by the Contractor's Maintenance personnel of receiving notification of a BOS failure or degradation from the BOS, other Contractor personnel, customers, the Authority, Third-Party Service Providers or another contractor as follows: <ul style="list-style-type: none"> <li>• Within one (1) hour of notification for a Priority 1 event;</li> <li>• Within four (4) hours of notification for a Priority 2 event; and</li> <li>• Within twenty-four (24) hours of notification for a Priority 3 event.</li> </ul>	Priority 1 - \$1,000 Priority 2 - \$500 Priority 3 - \$250
17	Repair of Priority 1 failure or degradation	Per Priority 1 failure that is not repaired within four (4) hours.	\$ 2,500 per event and \$200 for each subsequent hour of delay.
18	Repair of Priority 2 failure or degradation	Per Priority 2 failure that is not repaired within twenty-four (24) hours.	\$1,000 per event and \$100 for each subsequent hour of delay.
19	Repair of Priority 3 failure or degradation	Per Priority 3 failure that is not repaired within three (3) Calendar Days.	\$500 per event and \$500 for each subsequent Calendar Day of delay.
20	Protect sensitive customer information from exposure to others	Per event of exposure of PII or PCI data to unauthorized persons.	\$25,000 per event and per subsequent day of exposure and all costs of direct damages, Notification and remediation.
21	Notify all affected customers of security breach.	Per event of customer Notifications not being sent within two (2) Calendar Days of security breach.	\$5,000 per event and \$2,500 for each subsequent Calendar Day of delay.

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
22	Remediate all PCI or PII related deficiencies	Per Calendar Day if deficiency remains after one (1) month from the initial date when any PCI or PII vulnerability is identified during PCI compliance audits, normal network and BOS monitoring, testing or vulnerability scans. This includes completing the Approved Change management process, complete testing and successful placement into production of fixes required to achieve compliance.	\$500 per Calendar Day
23	Recovery Point Objective (RPO)	In case of primary BOS failure and transfer of production to the DR site, where the RPO is more than ten (10) minutes.	\$5,000 per event and \$1,000 for each subsequent ten (10) minutes of extended RPO.
24	Recovery Time Objective (RTO)	In case of primary BOS failure and transfer of production to the DR site, where the RTO is more than twenty-four (24) hours.	\$5,000 per event and \$250 per each subsequent hour of extended RPO.



## **1.2 CSC Operations Performance Measurement**

The CSC Operations Performance Measures are tracked and reported to measure the ability of the Contractor to execute the key business processes and SOPs required. The Performance Measures are intended to align with the primary functions of the CSC Operations.

Some Performance Measures will be used to measure performance of processes that execute multiple times per day, for example, serving customers at the CSC or via the telephone. Other Performance Measures assess the Contractor's performance on the completion of a specific task, for example the completion of accurate monthly reconciliation and Submittal of the reconciliation documentation to the Authority.

The specific method of measuring the Contractor's performance will vary depending on the Performance Measure, but will generally be measured on a per item, daily or monthly basis. Non-compliance with the Performance Measures will result in assignment of non-compliance points, which are used to calculate the monthly Adjustments. This process is described in the following section. Regardless of how a Requirement is measured, the Contractor shall provide monthly reporting for all Performance Measures.

### **1.2.1.1 Performance Scorecard**

For CSC Operations performance measurement, each Performance Measure is assigned a weighted non-compliance point value. The value of the non-compliance points assigned depends on the severity of the failure and its potential impact on the Authority's business.

The Contractor shall develop Performance Measure reports, including the Monthly Performance Scorecard. Failure to comply with the Performance Measure will result in the associated non-compliance points being applied to the Contractor's Monthly Performance Scorecard. If the accumulated non-compliance points reach a specified threshold, the Contractor's invoice for the month will be adjusted by a percentage of the total invoice value, as shown in Table 3.

Table 2, below, provides the BOS Performance Measures, measurement calculations and Adjustments for the Contractor. The Contractor's monthly invoice will be adjusted by the percentages and amounts shown.

Attachment D: Sample KPI Adjustments provides sample scenarios for calculating the monthly KPI Adjustments.

Table 2: CSC Operations Performance Measures and Non-Compliance Points

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
1	<b>Reporting of all Operations Failures to the Authority</b> - The Contractor shall notify the Authority of all observed operations failures identifying the failure utilizing the Approved notification process defined in the Operations Plan, SOPs and Business Rules.	Per failure to report observed operational failure using Approved notification process within 60 minutes	3
2	<b>Monthly Reconciliations</b> – The Contractor shall ensure all reconciliations are completed per the Requirements and that discrepancies are investigated, resolved, reconciled and closed and that the monthly roll-up of daily reconciliations, summarizing the daily activities for the entire month is provided.	Per month in which monthly roll-up is not provided within three (3) Business Days of month end	30
3	<b>Monthly Journal Entries</b> – The Contractor shall ensure all month end journal entries are transmitted to the Authority and shall include minimum monthly fee accrual, Credit Card processing fees accrual, customer Collections and Violations Collections accrual, tax and lottery intercept accrual and accounts receivable (A/R) and accounts payable (A/P) other interop accrual.	Per month in which accruals are not provided within three (3) Business Days of month end	30
4	<b>Daily Journal Entries</b> – The Contractor shall ensure all daily journal entries are transmitted to the Authority and shall include cash receipts journal entries for violations and cash receipts/adjustments for activity on customer accounts.	Per day in which the journal entries are not provided within one (1) Business Day	3
5	<b>Quality Assurance</b> – The Contractor shall ensure that all Approved Quality Assurance (QA) processes, per the Quality Plan are completed monthly.	Per month in which 100% of Approved QA processes are not followed	40
6	<b>Customer Satisfaction</b> - The Contractor shall use a Customer Satisfaction Survey to determine customer satisfaction with how contacts are handled. The post-contact survey questions will gauge the customers’ satisfaction with the Service they received when contacting the CSC.	Per month in which Contractor does not achieve an average of 4.5 (at a minimum) out of 5	30
7	<b>Speed of Answer - Call Center request to speak with a CSR</b> - The Contractor shall answer incoming calls, after the caller elects to speak with a CSR.	Per Business Day in which 80% of calls are not answered within 60 seconds	3
8	<b>Abandon Rate</b> – The Contractor shall ensure incoming calls do not abandon prior to speaking with a CSR.	Per Business Day in which 4% of calls or more are abandoned	3
9	<b>Speed of Answer - Chat</b> - The Contractor shall answer incoming chat requests when a customer elects to chat with a CSR.	Per Business Day in which 80% of chats are not answered within 60 seconds	3
10	<b>Speed of Answer – Text</b> - The Contractor shall respond to incoming texts when a customer elects to text the CSC.	Per Business Day in which 80% of texts are not answered within 60 seconds	3
11	<b>Speed of Answer - Email</b> - The Contractor shall respond to incoming email requests when a customer elects to email the CSC.	Per Business Day in which 90% of emails are not responded to within 1 Business Day	3
12	<b>First Contact Resolution</b> - The Contractor shall resolve customer requests on the first contact with the CSC. Customers will be provided a question on the customer surveys to indicate if their request was resolved on the first contact.	Per Business Day in which Contractor does not resolve 85% of calls (per survey results)	5
13	<b>CSC WIC Customer Wait Time</b> - The Contractor shall ensure waiting times for customers to interact with a CSR at the CSCs remain within acceptable limits.	Per Business Day in which 80% of wait times exceed five (5) minutes	3
14	<b>Timeliness of Customer Case Resolution</b> - The Contractor shall completely and accurately resolve customer requests, including resolving customer complaints, made via all channels. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Authority is required.	Per Business Day in which 90% of cases are not resolved within one (1) Business Day	3
		Per Business Day in which 98% of cases are not resolved within five (5) Business Days	3

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
15	<b>Accuracy of Customer Request Resolution</b> - The Contractor shall completely and accurately resolve the customer requests. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Authority is required.	Per month that 99% accuracy is not met	30
16	<b>Reason Code Accuracy</b> - The Contractor shall select the correct transaction reason code. The BOS shall select a random sample set of one-hundred (100) transactions which required a reason code each month which will be reviewed for accuracy as part of the Contractor's Quality Assurance process. Both the process and the final outcome will be evaluated and the transactions which are determined to be adjusted or reversed for the wrong reason or inappropriately adjusted or reversed will be identified.	Per month that 99% accuracy is not met	30
17	<b>OCTA Identified High Priority Issues Acknowledged and Assigned</b> - The Contractor shall acknowledge and assign to appropriate staff all high priority customer issues. The Authority will designate specific issues as "high priority" when the issues are provided to the Contractor. These issues are entered into the Case process for tracking to final resolution which will be communicated to the Authority and the customer.	Per high priority issue that is not acknowledged and assigned within two (2) business hours	3
18	<b>OCTA Identified High Priority Issues Accurately and Completely Resolved</b> - The Contractor shall accurately and completely resolve all high priority customer issues. Resolution means completely resolving the issue for the inquiry, such that the issue requires no further follow up by the customer, the Contractor or the Authority.	Per high priority issue that is not accurately and completely resolved within one (1) Business Day	3
19	<b>Processing of Returned Mail</b> - The Contractor shall process all returned mail. The customer account must be updated with any new information and further research tasks shall be undertaken in accordance with the Business Rules to attempt to obtain an address for customers with only an undeliverable address.	Per Business Day in which 90% of the sample size of returned mail is not processed within three (3) Business Days	3
		Per Business Day in which 100% of the sample size of returned mail is not processed within ten (10) Business Days	3
20	<b>Processing of Transponder Requests</b> - The Contractor shall package and transmit all transponder requests to shipping provider.	Per Business Day in which 100% of transponder requests are not processed within two (2) Business Days	3
21	<b>Payment Processing</b> – The Contractor shall ensure all payments are posted to the correct account.	Per Business Day in which 100% of payments are not processed within two (2) Business Days	5
22	<b>Research and Resolve Unidentified Payments</b> - The Contractor shall ensure 100% of all cash, money order and check payments which are ineligible for immediate posting to a customer account (for example, payments missing sufficient information to identify the posting account) are completely and accurately resolved (for example, posted to an account, refunded to the customer or documented as all avenues exhausted). These include payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that the payments can be posted to a customer account as quickly as possible or, if all research avenues are exhausted and documented, tracked as unidentified funds in case of future customer contact	Per Business Day in which 100% of all unidentified payments are not completely and accurately resolved within five (5) Business Days	3
23	<b>Process and Issue Refunds</b> - The Contractor shall ensure 100% of all eligible refunds are completely and accurately mailed to customer.	Per Business Day in which 100% of all refunds are not completely and accurately issued within five (5) Business Days	3
24	<b>Staff Turnover/Attrition</b> - The Contractor shall ensure the voluntary staff turnover / attrition rate does not exceed 5% of the total workforce each month. The Contractor is expected to implement employee engagement tools, training and career development processes to ensure the workforce remains consistent	Per month in which voluntary turnover/attrition exceeds 5%	10
<i>For monthly measures the Contractor shall measure performance by comparing the target performance level defined in these Performance Measures against their actual performance for the month as applicable.</i>			

### 1.3 Non-Compliance Performance Adjustments

The Contractor's performance score will be determined each month by adding the points assessed for non-compliance as described above. A performance Adjustment will be made in each month that the Contractor exceeds the allowable number of non-compliance points up to a maximum monthly Adjustment. The invoice Adjustment will exclusive of any pass-thru costs.

**Table 3: Non-Compliance Adjustments**

Performance Level	Non-Compliance Points Range	Monthly Invoice Adjustments Percent
Level 1	0-30	0%
Level 2	31-50	1%
Level 3	51-150	2%
Level 4	151-250	5%
Level 5	251-400	12%
Level 6	401+	25%

### 1.4 Escalation

Non-compliance points will accrue as follows:

- The first month that a specific Performance Measure is not met will result in the assessment of the initial value of the associated non-compliance points assigned in Table 3.
- If a specific Performance Measure is not met for a second consecutive month, the non-compliance points assessed for that failure will be doubled for that month.
- If a specific Performance Measure is not met for a third consecutive month and for all subsequent consecutive months thereafter, the non-compliance points assessed for that failure will be tripled for that month.

### 1.5 Corrective Actions

Failure to meet a Performance Measure does not relieve the Contractor of the Requirement to complete the activity associated with the Performance Measure. The Contractor shall identify the failure condition, take immediate action to remedy the condition and ensure that corrective action is taken to prevent repeated failures in the future. This will be documented in a Corrective Action Plan (CAP). For example, if the Contractor fails to completely and accurately resolve 100% of the customer requests within the time required by the Performance Measure, the unresolved customer requests must still be completely and accurately resolved and the Contractor must identify the root cause of the failure, the extent of the problem and provide a plan to prevent future occurrences. The Contractor must complete activities in a first-in, first-out order (FIFO). Skipping prior day's work in order to catch up with a Performance Measure will not be allowed.

1	The Contractor shall identify the failure condition, take immediate action to remedy the condition and ensure that corrective action is taken to prevent repeated failures.
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2	Failure to meet a Performance Measure shall not relieve the Contractor of the Requirement to complete the activity associated with the Performance Measure. Any failure to meet a Performance Measure that requires the completion of a specific action(s), for example completing daily reconciliations or completing image review correctly, which is not completed in accordance with the Requirement, shall not relieve the Contractor of the responsibility to perform in accordance with the Operations Plan and the Requirements.
3	If a Performance Measure involving completing work in certain period of time is missed, the work shall be completed in order, such that the oldest work is completed before starting any newer work. The Contractor shall not skip any prior work and process new work to avoid a subsequent Performance Measure Adjustment.
4	The Contractor shall develop a Corrective Action Plan (CAP) for each failure to meet a Performance Measure identifying the root cause(s), the extent of the problem and providing a plan to rectify the current situation and prevent future occurrences. For example, if the Contractor fails to completely and accurately resolve customer requests within the time required by the Performance Measure, the unresolved customer requests shall be completely and accurately resolved and the Contractor must identify the root cause of the failure, the extent of the problem and provide a plan to prevent future occurrences.
5	The Contractor shall submit the CAP to the Authority for review and Approval.
6	The CAP provided by the Contractor shall be in a format Approved by the Authority as part of the Operations Plan.

## **1.6 Non-Chargeable and Chargeable Failures**

For purposes of calculating Performance Measures, chargeable and non-chargeable failures are defined as follows:

- *Non-chargeable failures are those failures identified in the following section. Adjustments will not be assessed for non-chargeable failures.*
- *Chargeable failures are any failures not specifically identified as non-chargeable. Adjustments will be assessed for chargeable failures.*

### **1.6.1 Non-Chargeable Failures**

7	Non-chargeable failures are limited to:
	<ul style="list-style-type: none"> <li>• Force Majeure, as defined in the Agreement;</li> <li>• BOS failures caused by environmental or operating conditions outside of those that the Contractor controls as established in the Requirements;</li> <li>• Preventive Maintenance as allowed in the Maintenance Plan and</li> <li>• failures that are the responsibility of other contractors and Third-Party Service Providers that are not contracted through or provided by the Contractor as determined by the Authority.</li> </ul>

### **1.6.2 Chargeable Failures**

8	Chargeable failures shall include any failures not specifically identified as non-chargeable.
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## **1.7 Performance Reporting**

The Contractor is required to provide the Authority a Monthly Operations Report that includes the Contractor's Performance Reports and Monthly Performance Scorecard. The Contractor's Performance Report will include a series of reports detailing the Contractor's performance against each Performance Measure and details related to the failure events that resulted in the non-compliance. The Contractor's Performance Report shall contain all information necessary for the Authority to verify the Contractor performance as reported by the Contractor.

9	The Contractor shall prepare and submit to the Authority the Performance Reports as part of the Contractor's Monthly Operations Report on an agreed-upon day each month as defined in these Requirements.
10	The Performance Report shall include: 1) a Monthly Performance Scorecard calculating the non-compliance points assessed that month, if applicable; 2) a series of reports that is comprised of one (1) report per Performance Measure, detailing the Contractor's performance against the Requirement that month supporting the Monthly Performance Scorecard for each Performance Measure, and 3) a historical report detailing the Contractor's performance against each Requirement for the most recent 13 months. Copies of all CAPs related to failures for that month must be included.
11	The Contractor shall provide the required Monthly Operations Report to the Authority before an invoice will be considered for payment.

# **Attachment A: WRTO and CTOC Technical Specifications for Interagency Electronic Data Interchange**

Technical Specification for Interagency Electronic Data Interchange

WESTERN REGION TOLL OPERATORS (“WRTO”)  
and  
CALIFORNIA TOLL OPERATORS COMMITTEE (“CTOC”)

Technical Specification

for

Interagency Electronic Data Interchange

Revision A 2.0

May 13, 2020



# Technical Specification for Interagency Electronic Data Interchange

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## Technical Specification for Interagency Electronic Data Interchange

### 1. LIST OF REVISIONS

CTOC Technical Specification:

Rev. A Initial Release

Rev. B Adds Good Tags File Layout

Rev. C Adds Toll Violations File Layout

Rev. D Adds Statement Descriptions in Appendix E  
Document Reformatted

Rev. E Revise Good Tags File to Tag Status File  
Changed Processing Times

Rev. F Modifies Violations File Format  
Adds License Plate Exchange File Layout  
Adds Document Distribution List  
Adds Additional Plaza/Lane Designations for TCA

Rev. G Modified Tag Status File Format to additional tag information fields  
Added new Appendix F - Violations Reject File  
Rename old Appendix F (Plaza/Lane Designations) to Appendix I  
Re-organize document to current form  
Add Title 21 definition as Appendix K  
Add Title 21 approved messages codes as Appendix L

Rev. G (1-7-2002) Combined commented versions of document into current version  
for comment and approval.

Rev. G (2-26-2002) Questions and answers revisions to document. Rev. G (FINAL)  
Final comments added from teleconference.

Rev. G.1 (FINAL) Final corrections:

- 1) Remove DIFF from tag status file header.
- 2) Fix sample file for tag status.
- 3) Pay by Plate Processing Narrative correction.
- 4) Reconciled Pay by Plate Charges File – fixed Reconcile codes.

Rev. G.2 (FINAL) Corrections:

- 1) Change to General File Format Rule #15 regarding transaction uniqueness.
- 2) Add General File Format Rule #16 regarding sequence numbering.

Rev. G.3 (FINAL) Corrections:

- 1) Remove “optional” from 3 subtypes on Tag Status File. Subtypes must be sent.

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- 2) Remove the San Diego CALTRANS Bridge (Coronado).

Rev. G.4 (April 26, 2004) Corrections:

- 1) Corrected Title 21 tag range assignments to reflect current approved assigned ranges.
- 2) Corrected Definition of License Plate field (in License Plate Status File) to read "Alphanumeric" instead of "Alpha".
- 3) Added the following "Format conforming to DMV Parking Manual" to the description of the License Plate Field.
- 4) Added "Daily Violation Sweep" Flowchart to Appendix D.
- 5) Updated "Pay by Certificate" Flowchart in Appendix E.

Rev. G.4.1.a. (December 13, 2010) Corrections:

- 1) Corrected Table of Contents to include page 11, "File Naming Conventions"
- 2) Updated the "Document Control" to remove Harry Hansen, Jr. and add Joyce Hill as the Document Control contact.
- 3) Updated the California's Definition for Title 21's 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (February 16, 2010)
- 4) Record Appendixes as listed in Rev. G.4:
  - a) Appendix A: Plaza/Lane Description
  - b) Appendix B: Title 21 Definition
  - c) Appendix C: Subtype Definitions for Tag Record File
  - d) Appendix D: License Plate Date Logic
  - e) Appendix E: Violation Enforcement via Plate Reads
- 5) Appendix A: Added lane and descriptions for TCA (Windy Ridge SB/NB Lane 13, November 3, 2009)
- 6) Appendix A: Added lane and descriptions for I-680 Express lanes
- 7) Appendix A: Corrected lane and descriptions for SANGAG

Rev. G.4.1.b. (April 7, 2011) Corrections

- 1) Appendix A: Added lane and description for TCA (Tomato Springs SB/NB Lane 13, 2004).
- 2) Updated agency name in Table 2, Agency Codes, to add "BATA."
- 3) Updated the California's Definition for Title 21's 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (January 13, 2011)

Rev. G.4.2. (June 21, 2011) Corrections:

- 1) Appendix A: Deleted lanes and description for TCA (Portola Parkway North Off Lanes 2248-03, 2248-04 and Portola Parkway North On Lanes 2249-03, 2249-04)
- 2) Changes:
  - a) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.1 Transponder Tag Type ID for HOV Switchable Tags. (March 24, 2011)
  - b) Includes Example Tag

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- 3) Updated General File Format Rules for switchable tag mode. (February 14, 2011)
  - a) Section 8.2.2 Field: Tag ID; Notes section
  - b) Section 8.3.2 Field: Tag ID; Notes section
  - c) Section 8.4.2 Field: Tag ID

Rev. G.4.3. (November 16, 2011) Changes:

- 1) Added LA Metro to the Agency Codes; Section 6.0, Table 2.
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 17, October 7, 2011)
- 3) Added lanes and descriptions for LA Metro to Appendix A: Plaza/Lane Descriptions

Rev. G.4.4. (December 21, 2011) Changes:

- 1) Added lanes and descriptions for 237 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev. G.4.5. (November 20, 2012) Changes:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 19, September 25, 2012)
- 2) Added lane and changed descriptions for SANDAG 1-15 to Appendix A: Plaza/Lane Descriptions

Rev. G.4.6. (March 22, 2013) Changes:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 21, March 21, 2013)
  - a) Note: Version 20: Newly assigned Facility Codes for TCA; Table 1 & 2.
  - b) Version 21: Newly assigned Facility Codes for SR-91; Table 2

Rev. G.4.7 (April 03, 2013) Changes:

- 1) Added/updated plazas for LA Metro to Appendix A: Plaza/Lane Descriptions

Rev. G.4.8 (November 15, 2013) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 22, October 25, 2013)

Rev. G.4.9 (December 4, 2013) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 23, November 21, 2013)

Rev. G.4.9.a (April 16, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 24, April 3, 2014)

Rev. G.4.9.b (October 23, 2014) Changes:

- 1) Updated plazas for TCA to Appendix A: Plaza/Lane Descriptions
  - a) Closed: 61 lanes
  - b) Added: 4 lane

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c) Name Changes: 6 lanes

Rev. G.4.9.c (November 10, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 25, November 6, 2014)

Rev. G.4.9.d (November 13, 2014) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 26, November 13, 2014)

Rev. G.4.9.e (May 21, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
- 2) Change:
  - a) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
  - b) 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
- 3) Add:
  - a) APPENDIX A: Plaza/Lane Descriptions
  - b) 4001-4009 Reserved for OCTA
  - c) 4020-4040 Reserved for RCTC

Rev. G.4.9.f (June 08, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
- 2) Deleted "(Pilot Project)" from Section 7.2, Table 1

Rev. G.4.9.g (June 15, 2015) Update:

- 1) Added "(Multiprotocol Tags)" to Section 7.2, Table 1
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 2, (Version 29, June 15, 2015)

Rev. G.5 Draft V0 (April 21, 2006) Modifications:

- 1) Changed "Amount Charged" to "Amount Posted" in TRAN AMOUNT field in Reconciled Toll Charges and Reconciled Pay by Plate Charges files
- 2) Add "Account Identifier" field to tag file
- 3) Add "Account Identifier" and "Plate Identifier" fields to plate file
- 4) Eliminate "D" (Delete option) in the Tag File (which should always be INIT only)
- 5) Added clarifying language about the Daily Violation Database Sweep
- 6) BATA added to the list of Agency Codes used in filename. BATA will use the code assigned to ATCAS (Caltrans).
- 7) San Francisco Airport added to list of Agency Codes.

Rev. G.5 Draft V1 (November 21, 2013) Modifications:

- 1) Added a Note to the Toll Charges Processing narrative to standardize exclusion of non-revenue plates.
- 2) Added VERSION to all header files. This field will contain the Version Number, "REVG.5" right justified. This will allow for backward compatibility in the future.

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- 3) Updated Appendix A, adding new I-15 plazas and lanes.
- 4) Updated Appendix F with new ranges from CALTRANS.
- 5) Added Entry/Exit Times and Axle Count to toll and Pay by Plate transaction files.

### Rev G.5 Draft V2 (April 16, 2014) Modifications:

- 1) Modified Section 4.0 - Item 3 - Added more clarity to Guarantee of payments for valid plates.
- 2) Modified Section 8.1.1 - Narrative (2nd Paragraph) - clarified note.
- 3) Modified Section 8.2.2
  - a) Removed DST Field
  - b) Modified AXLE Count Notes
  - c) Added OCCUPANCY Field
- 4) Modified Section 8.2.4 –
  - a) Modified Toll Charges Sample File to include how different Trip Types are included.
- 5) Added new section 8.2.5 - Business Rules to describe how Entry/Exit Information is included in the Toll Charges File.
- 6) Modified Section 8.3.2 -
  - a) Changed Notes for the first 13 Fields to reflect that it should be same as the original Toll Charges File.
  - b) Removed DST Field
  - c) Removed INFERRED TAG READ Field.
  - d) Added Occupancy Field
- 7) Modified Section 8.5.1 -
  - a) Pay by Plate Narrative - Modified previously modified Paragraph 4.
  - b) Removed GENERAL GUIDELINES Section.
- 8) Modified Section 8.6.2 - Remove DST Flag
- 9) Added New Section 8.6.5 – Business Rules for Plate Status Files.
- 10) Modified Section 8.7.2 - Plate Status Detail Record Format
  - a) Removed PlatelD
  - b) Changed Definition of Action Code
  - c) Added PLATE TYPE - to differentiate Universal Non-Revenue Plate Accounts.
- 11) Added New Section 8.7.5 – Business Rules for Plate Status Files.
- 12) Modified Section 8.8.2 - Reconciled Pay by Plate Detail Record Format
  - a) Modified Notes for field 1 thru 13 to reflect that it will be same as the PBP Plate Transaction File
  - b) Removed DST

### Rev G.5 Draft V3 (June 17, 2014)

- 1) Section 5.2 – Included updated process flow
- 2) Section 8.3.1 - Reconciled Toll Charge File - Added POST AMT Field
- 3) Section 8.7.5 – Modified Business Rules section based on comments from the meeting.
- 4) Section 8.8.2 - Reconciled PBP Charge File - Added POST AMT Field.



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### Rev G.5 Draft V4 (December 2, 2014)

- 1) Updated document to include changes made in Rev. G.4.9.a, Rev. G.4.9.b, Rev. G.4.9c and Rev. G.4.9.d.
  - a) Updated California's Definition for Tile 21's 32-Bit Transponder Id Number Field, Section 7.0
  - b) Updated plazas for TCA to Appendix A: Plaza/Lane Description
- 2) Revision of the document based on comments
- 3) Section 5.2 – Included updated process flow

### Rev G.5 Draft V5 (January 22, 2015)

- 1) Section 8.5.2 – Removed bullet in C - Exception of Distance based toll.

### Rev G.5 Draft V6 (May 1, 2015)

- 1) Updated 8.2.2 Toll Charges Detail Record Format to add 6C Tag compatibility.
- 2) Updated 8.3.2 Reconciled Toll Charges Detail Record Format to add 6C Tag compatibility
- 3) Updated 8.4.2 Tag Status Record Format to add 6C Tag compatibility
- 4) Added Appendix F – 6C Toll Operators Coalition AVI Transponder Programming Standard (Version 2.0 November 20,2014)

### Rev G.5 Draft V7 (June 1, 2015)

- 1) Updated document to include changes made in Rev. G.4.9.e (May 21, 2015)
  - a) Changed 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
  - b) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
  - c) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
  - d) Added notes to APPENDIX A: Plaza/Lane Descriptions
    - i. 4001-4009 Reserved for OCTA
    - ii. 4020-4040 Reserved for RCTC
- 2) Updated Section 8.2.2
  - a) Changed Notes for Occupancy field
- 3) Updated document to include changes made in Rev. G.4.9.f (June 08, 2015)
  - a) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
  - b) Deleted "(Pilot Project)" from Section 7.2, Table 1

### Rev G.5 Draft V8 (June 15, 2015)

- 1) Updated document to include changes made in Rev. G.4.9.g (June 15, 2015)
  - a) Updated Switchable Transponder Tags Facility Codes, Section 7.2, Table 2 to extend the LA MTA range in T21 CA Transponder ID Ver. 29
  - b) Added "(Multiprotocol Tags)" to Section 7.2, Table 1



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Rev G.5.1 (October 20, 2015) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 30, October 7, 2015)
- 2) Updated Appendix F, 6C Programming Standard, Version 2.1

Rev G.5.2 (February 19, 2016) Update:

- 1) Added/updated plazas for I-580 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.3 (May 5, 2016) Update:

- 1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 31, April 20, 2016)
- 2) Updated Appendix F, 6C Programming Standard, Version 3, rev. 3

Rev G.5.4 (August 17, 2016) Update:

- 1) Added/updated plazas for 91 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.5 (December 27, 2016) Update:

- 1) Added field justification clarification for the ACCOUNT ID field in the Tag Status Detail Record table (section 8.4.2) and the Plate Status Detail Record table (section 8.7.2)
- 2) Updated the sample file examples in sections 8.2.4, 8.3.4, 8.4.4, 8.6.4, 8.7.4, and 8.8.4.
- 3) Added ATI information section 9 to separate ATI files from CTOC files
- 4) Updated I-580 lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.5.a (Mar 9, 2017) Update:

- 1) Updated SANDAG Express Lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.6 (Oct 13, 2017) Update:

- 1) Section 3 – Changed the reference to Senate Bill 1523 to Streets and Highways Code
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 32, September 26, 2017)
- 3) Section 8.2.2 - Added Vehicle Type to the Toll Charges Detail Record
- 4) Modified section 8.4.2 - Tag Status Detail Record
  - a. Removed "D – deactivate tag"
  - b. Added clean air vehicles to Subtype B
- 5) Section 8.6.2 – Added Vehicle Type to the Pay by Plate Detail Record
- 6) Section 8.7.2 – Added a Subtype for clean air vehicles to the Plate Status Detail Record
- 7) Deleted Section 9, ATI Processing
- 8) Updated I-680 Express Lanes in Appendix A: Plaza/Lane Descriptions
- 9) Updated notes in APPENDIX A: Plaza/Lane Descriptions
  - a. 4020-4399 Reserved for RCTC
- 10) Deleted Subtypes "L", "S", "B", and "R" from APPENDIX C: Sub Type

## Technical Specification for Interagency Electronic Data Interchange

### Definitions

Rev G.5.7 (Jan 24, 2018) Update:

- 1) Removed ATI File extensions in table 1
- 2) Fixed version typos throughout section 8

Rev G5.7a (Dec 7, 2018) Update:

- 1) Corrected definition of TAG ID and updated the sample files
- 2) Updated California's Definition for Title 21's 32 Bit Transponder Id Number Field, Section 7.0

### **Renamed as "Western Region Toll Operators and California Toll Operators Technical Specification." Restarted Version Numbering.**

Rev A 1.0 (October 31, 2018)

- 1) Renamed document
- 2) Updated plaza codes

Rev A 1.1 (February 21, 2020)

- 1) Updated Appendix A to add plaza IDs for BAIFA, VTA, RCTC, TCA and Alameda CTC and reserve additional plaza ID range for OCTA
- 2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 8.0 (Version 34, September 9, 2019)
- 3) Updated Section 2 with new contact information
- 4) Updated Section 7 Table 2 with new agency codes

Rev A 2.0 (May 13, 2020 DRAFT):

- 1) Updated Section 2 – Document Control
- 2) Updated Section 3 – Goal
- 3) Corrected Definition of Tag ID
- 4) Updated California's Definition for Title 21's 32 Bit Transponder ID Number Field
- 5) Rearranged, consolidated and numbered Business Rules
- 6) Added Correction, Correction Reconciliation, and Acknowledgement files
- 7) Updated time fields to include time zone
- 8) Added flowcharts
- 9) Updated reference to 6C Coalition Standard Version 3.2

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## 2. DOCUMENT CONTROL

All suggested additions, changes, and deletions should be submitted to:

Tyler Patterson  
c/o WSDOT  
401 2<sup>nd</sup> Ave S. #300  
Seattle, WA 98104  
Phone: (206) 716-1134  
Email: PatterT@wsdot.wa.gov

Archives of this document will be at:

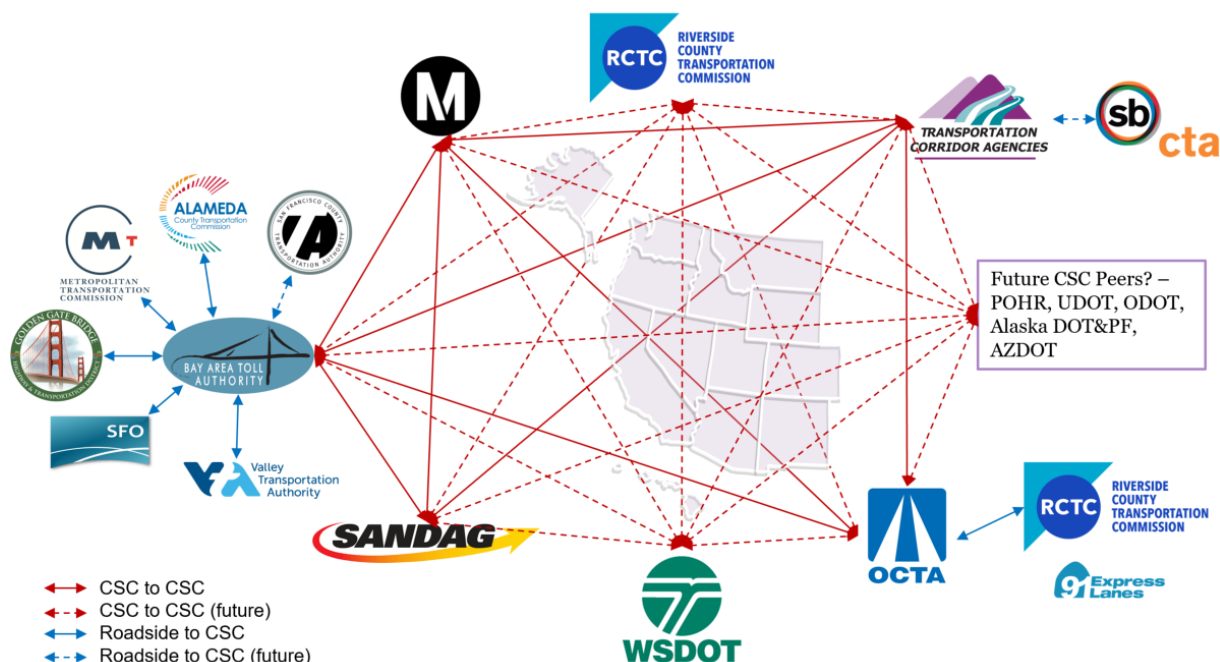
WSDOT  
401 2<sup>nd</sup> Ave S. #300  
Seattle, WA 98104

Any requests for changes, modifications, corrections, etc. will be logged, and then forwarded to the WRTTO members for comment, before incorporation into this Technical Specification. No additions, modifications or deletions shall be valid and effective unless and until the same have been agreed to by the WRTTO members.

## Technical Specification for Interagency Electronic Data Interchange

### 3. GOAL

This Technical Specification supports the Western Region Toll Operators (WRTO) goal of tolling interoperability among WRTO member agencies and with toll operators nationally. WRTO members will use this Technical Specification to support both types of interoperability. Figure 1 below shows that agencies within the Western Region will build upon the existing California Toll Operator's Committee (CTOC) model for interoperability based on the peer-to-peer structure for exchanging data and settlement payments. The WRTO started with the last approved version of CTOC's Technical Specification and updated it into this document. The WRTO attempted to minimize change when drafting these specifications for implementing intra-regional interoperability.



**Figure 1. Western Region Peer to Peer interoperability**

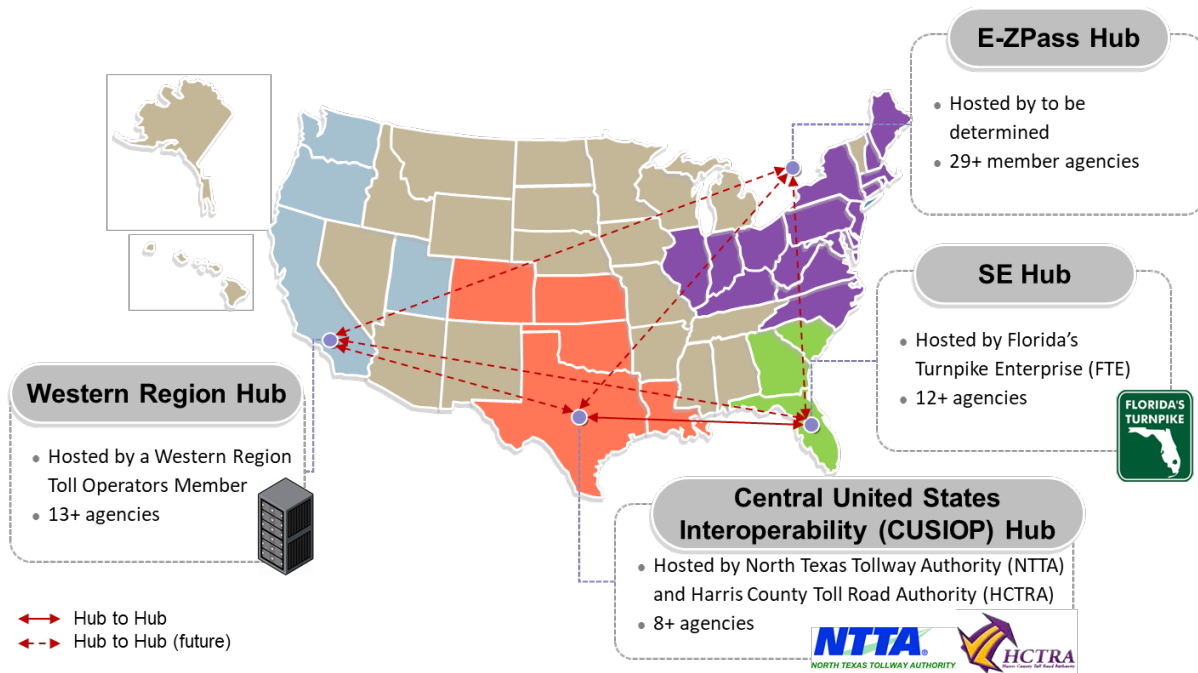
In support of the California members of the WRTO, WRTO members should strive to use one transponder compatible device to use on all WRTO toll facilities for the purpose of toll collection.

No California tolling agencies currently engage in interoperability with tolling facilities located outside of California. It is likely that such action will require modifications to state law. Until those modifications are made, as they apply to California toll agencies, these specifications shall be deemed to be standards adopted by the California tolling agencies for purposes of interoperability between those California agencies in accordance with California Streets and Highways Code section 27565(a).

National interoperability (NIOP) is based on regional hubs connecting to each other. Four regional hubs (Southeast, Central, E-ZPass, and Western) will form a hub-to-hub network to exchange data and settlement payments. Figure 2 below shows the regional

## Technical Specification for Interagency Electronic Data Interchange

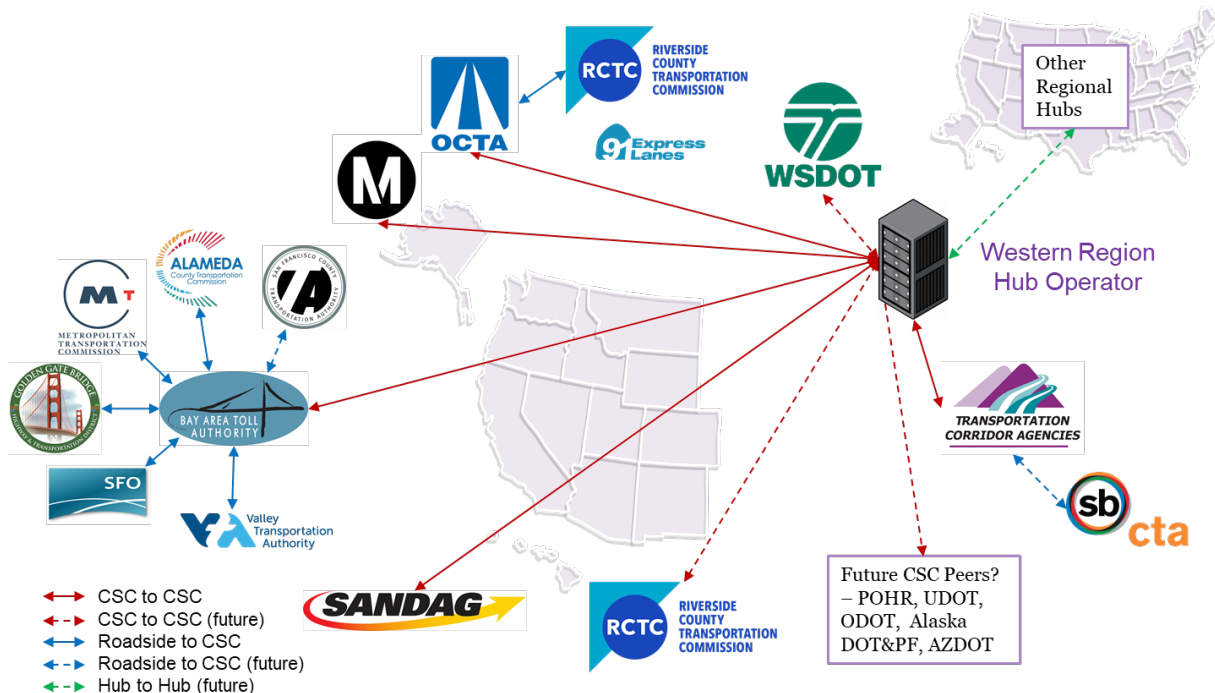
hubs and potential member agencies. Each regional hub will funnel data and transactions between other regional hubs and their local agencies. The Hubs will use the NIOP Business Rules and ICD, which specify the rules for the exchange of data, reconciliation and settlement payments.



**Figure 2 NIOP Hub to Hub interoperability**

To participate in NIOP, the Western Region has a Western Region Hub (WR Hub) to serve as its conduit to the other regional hubs. As shown in Figure 3 below, Western Region agencies will interact with the WR Hub in a Hub and Spoke formation for exchanging tolling data with toll agencies outside the Western Region. Exchanges between the WR agencies and the WR Hub will use the same file types and structure as for the peer-to-peer exchanges.

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**Figure 3 Western Region and NIOP Peer to Hub interoperability**

WRTTO member agencies will offer a single account statement to each customer, which includes their transaction activities from all interoperable participating facilities within the region and nationally.

**Table 1 Definitions**

Term	Definition
Away Agency	The owner/operator of the facilities at which a transaction occurred. In previous versions of this document, the term for these agencies was Acquiring Agency.
Agency ID	For 6C tags – A number within a range of numbers that the 6C Coalition assigns to the Home Agency, which is programmed into the transponder for automatic identification.
AVI	Automatic Vehicle Identification
Facility Code	For Title 21 tags - A number within a range of numbers assigned by Caltrans to the Home Agency, which is programmed into the transponder for automatic identification purposes.
Home Agency	The entity that establishes the account and issues the transponders. In previous versions of this document, the term for these agencies was Issuing Agency.
Lane Controller	Device that records data from in-lane systems and forms transactions.
NIOP	National Interoperability – Interoperability between Western Region and other interoperability regions, i.e. E-ZPass, Central, and Southeast.
Peer to Peer Settlement Agreement	The peer-to-peer Agreement that Western Region agencies sign to govern the exchange of data and funds for toll interoperability when at least one signer is outside of California (see also User Fee Processing Agreement).

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Term	Definition
Plate	License plate of a vehicle; captured by violation enforcement system (VES) if present.
Tag ID	Title 21 and 6C transponders - A number that uniquely identifies a transponder when associated with a single Facility Code or Agency ID.
Third Party	An entity that is not a public agency that has toll customers and may have its own Agency ID. Examples include BestPass and Neology.
Transponder (tag)	Device to allow for automatic vehicle identification, works by means of radio signal activation and returns the information programmed into it.
TSF	Tag Status File
User Fee Processing Agreement	The peer-to-peer Agreement that CTOC agencies sign to govern the exchange of data and funds for toll interoperability among themselves (see also Peer to Peer Settlement Agreement).
VES	Violation Enforcement System – For facilities with video enforcement, this would consist of high speed and video cameras to capture potential violator's license plate for further identification and forwarding to a Violation Processing System. For facilities without video enforcement, this might consist of visual enforcement by police or other designated agency.

## Technical Specification for Interagency Electronic Data Interchange

### 4. BUSINESS RULES

#### 4.1. General

##### 4.1.1. File Types

Western Region Agencies will exchange the following file types as part of Western Region interoperability.

- Tag Status File (TSF) – Contains a comprehensive list of all transponders associated with valid accounts at each agency. Each day agencies will send a Tag Status File to each peer agency and receive one from each peer agency.
- License Plate Status File (LPSF) – Contains a comprehensive list of all license plates associated with valid accounts at each agency. Each day agencies will send a License Plate Status File to each peer agency and receive one from each peer agency.
- Toll Charges File – Each day, an agency will send each peer agency a Toll Charges File containing all transactions with transponders matching those deemed valid in that peer agency's Tag Status File for the transaction date.
- Pay by Plate File – Each day, an agency will send each peer agency a Pay by Plate File containing all transactions with license plates matching those deemed valid in that peer agency's License Plate Status File for the transaction date.
- Toll Charges Reconciliation File – In response to each Toll Charges File received, an agency will send a Toll Charges Reconciliation File containing reconciliation information for each transaction in that Toll Charges File.
- Pay by Plate Reconciliation File - In response to each Pay by Plate File received, an agency will send a Pay by Plate Reconciliation File containing reconciliation information for each transaction in that Pay by Plate File.
- Corrections File – When an agency needs to adjust or resubmit a transaction sent in a previous Toll Charges or Pay by Plate File, the agency sends the adjusted or resubmitted transaction in a Corrections File. Such files will not be sent on a regular schedule.
- Corrections Reconciliation File – In response to each Corrections File received, an agency will send a Corrections Reconciliation File containing reconciliation information for each transaction in that Corrections File.
- Acknowledgement File – In response to each file of any type received, an agency will send an Acknowledgement file indicating whether the agency accepted or rejected the file. With any reject, the agency will also send a reason for the rejection.



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### 4.1.2. Response Codes

Table 2 lays out the WRT0 Response codes.

**Table 2 WRT0 response codes**

WRT0 Code	Meaning
A	Accepted – This is the only code that indicates a transaction posted to an account.
O	Transaction too old. See Section 4 for definition. <b>Cannot be resubmitted.</b>
D	Duplicate. <b>Cannot be resubmitted.</b>
F	Format Error. <b>Can be resubmitted</b>
I	Tag or Plate had an invalid status or was not in the Tag or License Plate Status File. <b>Cannot be resubmitted for NIOP, can be resubmitted for WR internal.</b>
L	Missing required LP Type. Send this code when a PBP transaction did not contain a LP Type, if your agency requires LP type in order to match license plate information to an account. <b>Can be resubmitted.</b>

#### 4.1.2.1. Too Old

As a general practice, Home Agencies within the Western Region will continue accept transactions for 180 days past the transaction date. However, a WR Agency may choose to reject transactions as too old as early as 60 days past the transaction date.

### 4.1.3. Transaction Guarantee

#### 4.1.3.1. Guarantee of Payment for Valid Tags

- Within the Western Region – The Home Agency will honor all transactions on transponders that were deemed “valid” in the Tag Status File, as sent to the Away Agency for the date associated with each toll event. The Away Agency has the responsibility to validate such transactions.
- NIOP Exchange – WR Hub will flag transactions as guaranteed per NIOP Business Rules

#### 4.1.3.2. Guarantee of Payment for Valid Plates

- Within the Western Region - The Home Agency will make best efforts to honor all transactions on license plates deemed “valid” in the License Plate Status File, as sent to the Away Agency for the date associated with each trip. If the account balance is negative or the account is closed at the time of posting, the Home Agency may reject the transaction. If the Home Agency rejects a transaction with a valid License Plate, the Away Agency may continue to check such transactions against the latest License Plate Status File received from the Home Agency and resubmit the transaction when the account balance is positive. Otherwise, the Away Agency may pursue the transaction per its internal business rules

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for unpaid transactions.

- b. NIOP Exchange – WR Hub will flag transactions as guaranteed per NIOP Business Rules.

### 4.2. Tag Status Files

#### 4.2.1. Within the Western Region

##### 4.2.1.1. Frequency

Each Agency will send every other agency a Tag Status File once per day.

##### 4.2.1.2. Bulk Tag Status Files

Each exchange of transponder status information provides for a complete transfer of active customer's transponder information from the Home Agency to the Away Agencies using the Tag Status File. The Away Agency stores this in their database and replaces it with the information from the next Tag Status File. The WRTTO does not exchange differential (partial update) Tag Status Files.

##### 4.2.1.3. Valid Tags

An Agency may only include transponders that are active against accounts in good standing in a Tag Status File. An Agency may not include transponders belonging to Accounts that are in negative balance in a Tag Status File.

##### 4.2.1.4. Rules for inclusion for Agency IDs and Facility Codes

A Home Agency may only put transponders with its own Agency ID or Facility Code or a 3rd party Agency ID or Facility Code in the Tag Status File. A Home Agency may put transponders with other public Agency IDs or Facility Codes on its accounts for local use.

##### 4.2.1.5. Inclusion of a transponder in more than one Tag Status File

Transponders with Third Party Agency IDs or Facility Codes may appear in more than one Tag Status File. If this occurs, the Away Agency will use its own Business Rules to determine to which Home Agency it will send the transaction for collection.

##### 4.2.1.6. Transponder Protocol

Agencies should include transponders with 6C and Title 21 protocols. Agencies may not include transponders with other protocols in their Tag Status Files. If a pair of agencies in the WR make a bi-lateral agreement on this issue, they may exchange transponder information for other transponder protocols in the

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Tag Status Files they exchange between their agencies. Agencies may include license plates associated with other protocol based transponder accounts in their License Plate Status Files.

### **4.2.1.7. Local Non-revenue accounts**

Agencies agree by convention not to send transponder or plate information for their own designated non-revenue account holders (accounts setup for maintenance trucks, agency employees, and other such entities that have the privilege of using that agency's toll facility free of charge).

### **4.2.1.8. Universal Non-revenue accounts**

Transponders belonging to Universal Non-Revenue Accounts, may be included in the Tag Status File sent to other Western Region agencies. These records will be clearly indicated by the TAG TYPE field that will be set to "N" for Non-Revenue.

### **4.2.1.9. Use of Tag Status File**

Agencies shall store the data contained in a Tag Status File and use it as a valid and definitive record of the Home Agency's active customer transponders until it receives a subsequent Tag Status File from the Home Agency.

## **4.2.2. Exchanges with the Western Region Hub**

### **4.2.2.1. From the Western Region Hub**

The Western Region Hub will not send Tag Status Files to Western Region Agencies. See Business Rules on Transaction Processing in Section 4.4 for further information.

### **4.2.2.2. To the Western Region Hub**

Western Region member Agencies will send Tag Status Files to the WR Hub on a daily basis. Note: In order to send this information to other NIOP Hubs, the WR Hub will process these files including:

- Translating Title 21 transponder IDs into new IDs that fit into the equivalent NIOP field
- Combining the Tag Status File with License Plate Status File into a single Tag Validation List (TVL) with every License Plate tied to a transponder
- Changing to a differential file, as needed

The WR Hub will then send the TVL to the other NIOP Hubs.

### **4.2.2.3. Difference from internal Tag Status File**

Agencies may send the same bulk Tag Status File to the WR Hub as it sends to other WR Agencies. As an alternative to ensure maximum interoperability, it is recommended that Agencies that issue transponders with protocols not

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permitted in the regional Tag Status File, such the SeGo protocol, create a separate Tag Status File that includes those additional transponders to send to the WR Hub.

### **4.3. License Plate Status File**

#### **4.3.1. Within the Western Region**

##### **4.3.1.1. Frequency**

Each Agency will send every other agency a License Plate Status File once per day.

##### **4.3.1.2. Bulk License Plate Status Files**

Each exchange of license plate status information provides for a complete transfer of active customer's license plate information including number, state and effective date from the Home Agency to the Away Agencies using the License Plate Status File. The Away Agency stores this in their database and replaces it with the information from the next License Plate Status File. The WRTD does not exchange differential (partial update) License Plate Status Files.

##### **4.3.1.3. Transponder Association**

In general, only License Plates belonging to Transponder based accounts are included in the Plate Status File. License Plates belonging to a Plate based account may be included in this file if a pair of agencies has a separate agreement to allow such inclusion.

##### **4.3.1.4. Local Non-revenue accounts**

License Plates belonging to designated Non-Revenue Accounts are not included in the Plate Status files (accounts belonging to maintenance vehicles, agency staff, etc. that grant the license plate discounts while using Home Agency's Toll Facilities).

##### **4.3.1.5. Universal Non-revenue accounts**

License Plates belonging to Universal Non-Revenue Accounts, may be included in the License Plate file sent to other Western Region agencies. These records will be clearly indicated by the PLATE TYPE field that will be set to "N" for Non-Revenue.

##### **4.3.1.6. Valid Plates**

An Agency may only include license plates that are active against accounts in

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good standing in a License Plate Status File.

**4.3.1.7. Effective Date**

When the account balance for an account that was previously negative, changes to a positive balance, the account becomes available for posting again. While generating the License Plate Status File, the Home Agency should ensure that the EFFECTIVE START DATE is the same as the original start date for the License Plate, before the account became negative.

**4.3.1.8. Deactivated Plates**

To prevent sending old deactivated plates in the License Plate Status File, Home Agencies should ensure that License Plates belong to accounts in good standing and License Plates are not included if the EFFECTIVE END DATE is more than 120-days older than the date the License Plate Status File is generated.

**4.3.1.9. Special Characters**

Home Agency shall cleanse/filter data to ensure that the License Plate Status File does not contain any License Plates with special characters (non-alphanumeric characters).

**4.3.1.10. License Plate Type**

If the Home Agency requires LP Type to post a transaction, it must include the LP Type in the License Plate Status File. If not required to post, the Home Agency should leave this field blank. Including the LP Type in the License Plate Status File indicates that the Away Agency must include LP Type with that license plate in a Pay-By-Plate File in order for the Home Agency to accept the transaction. Note: The WRTTO Technical Committee keeps LP Type guidance documents as supplied by Toll Facilities in its on-line document repository available to all WRTTO members. Please ask the WRTTO Technical Committee Chair for access.

**4.3.2. Exchanges with the Western Region Hub**

**4.3.2.1. From the Western Region Hub**

The Western Region Hub will not send License Plate Status Files to Western Region Agencies. See Business Rules on Transaction Processing for further information.

**4.3.2.2. To the Western Region Hub**

Western Region member Agencies will send License Plate Status Files to the

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WR Hub on a daily basis. Note: In order to send this information to other NIOP Hubs, the WR Hub will process these files including:

- Combining the Tag Status File with License Plate Status File into a single Tag Validation List (TVL) with every License Plate tied to a transponder
- Changing to a differential file, as needed

The WR Hub will then send the TVL to the other NIOP Hubs.

### 4.3.2.3. Difference from internal License Plate Status File

Agencies may send the same bulk License Plate Status File to the WR Hub as it sends to other WR Agencies. If universal non-revenue license plates are included in the WR Hub License Plate Status File, the WR Hub will not send them on to the other regional Hubs.

## 4.4. Transaction Processing

### 4.4.1. Processing Transponder Based Transactions within the Western Region

The Western Region Tag Data Exchange Flowchart in Figure 4 below describes the transaction processing flow for transponder based transactions within the Western Region to support the business rules that follow.

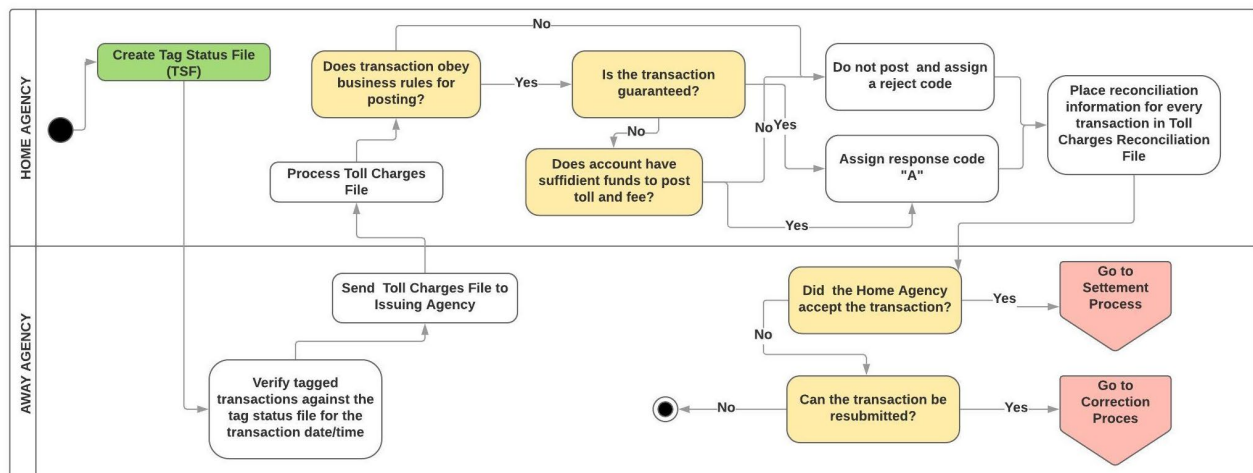


Figure 4 WR tag data exchange

#### 4.4.1.1. Handling Transponders at the lane controller

Each agency is responsible for filtering transponders at the lane level to ensure that only transponders designated for tolling use are included in transactions (i.e. filters out tags for other uses such as inventory).

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### **4.4.1.2. Assembling a Toll Charges File**

The Away Agency compares transactions that its system recorded to the list of active transponders in the Home Agency's Tag Status File corresponding to the transaction date. The Away Agency assembles those trips that have a transponder with a number matching a number on the Home Agency's most recent list into a Toll Charges File.

### **4.4.1.3. Sending a Toll Charges File**

The Away Agency assembles and sends a Toll Charges File to each Home Agency daily, as long as it has at least one transponder-based transaction that matches the Home Agency's Tag Status File.

### **4.4.1.4. Processing a Toll Charges File**

Upon receipt of the Away Agency's Toll Charges File, the Home Agency checks the following to determine whether to accept or reject a transaction received in a Toll Charges File.

#### **4.4.1.4.1. Correct format**

Does the transaction contain all the required information in the correct format? If no, reject with Code "F."

#### **4.4.1.4.2. Too Old**

Did the Away Agency send the transaction within the Home Agency's time limit for posting transactions? If not, reject with Code "O."

#### **4.4.1.4.3. Duplicate**

Is the transaction a duplicate of another transaction? If so, reject with Code "D." Each agency uses its own Business Rules to define a duplicate.

#### **4.4.1.4.4. Sufficient Funds**

Does the Account associated with the transponder have sufficient funds to post to the account? If yes, respond with code "A." If not, check against further business rules.

#### **4.4.1.4.5. Guaranteed Transactions**

Did the transaction contain a transponder that was "valid" in the Tag Status File corresponding to the transaction date? If yes, this is a guaranteed transaction and should be responded to with code "A." If not, reject with code "I."



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### 4.4.1.5. Creating a Reconciled Toll Charges File

After the Home Agency processes a Toll Charges file, it will create a Reconciled Toll Charges File and send it to the Away Agency. This file will contain a detail record for each transaction received by the Home Agency from the Away Agency in the corresponding Toll Charges File. The detail record will include a response code regarding the resolution of that transaction as well as posting amount.

### 4.4.2. Processing Image Based Transactions within the Western Region

The Western Region Plate Data Exchange Flowchart in Figure 5 below describes the transaction processing flow for image based transactions within the Western Region to support the business rules that follow.

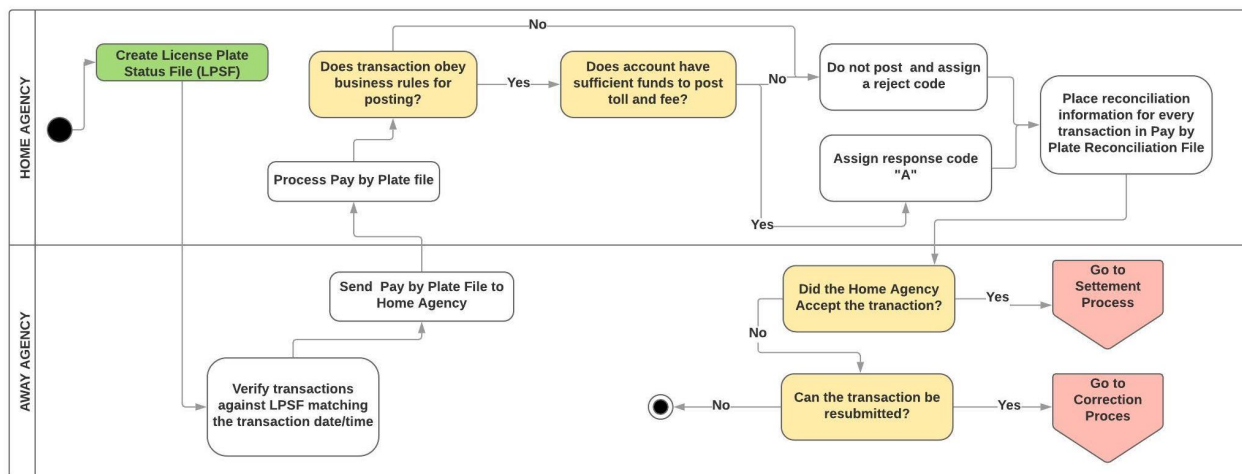


Figure 5 WR plate data exchange

#### 4.4.2.1. License Plate Type

When matching license plate information to a Home Agency's License Plate Status File information, the Away Agency should determine whether the information included a LP Type. If the Home Agency included LP Type in the Status File, the Away Agency determines whether the LP Type for the proposed "matching" license plate also matches the License Plate information. If yes, include that transaction in the Pay by Plate File along with the LP Type. If not or it cannot be determined, the Away Agency should not include the transaction in the Pay by Plate File and should pursue it per its internal business rules for unpaid transactions.

#### 4.4.2.2. Assembling a Pay by Plate File

The Away Agency compares trips that its system recorded to the list of active license plates in the Home Agency License Plate Status File associated with the transaction date. The Away Agency assembles those trips that have license



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plate information matching the information on that list into an electronic Pay by Plate File.

### **4.4.2.3. Violation Sweep**

When receiving a License Plate Status File, the Away Agency will sweep all violations currently being processed to check whether the updated plate information matches an existing violation transaction. If the sweep identifies a violation that matches an Away Agency's plate information, and the Away Agency has not yet issued a Notice of Toll Evasion (or similar notice per individual state) to that patron, then the Away Agency should include that transaction in the next available Pay by Plate file. If the Away Agency has previously sent the transaction for payment in a Pay by Plate File, then it should send include that transaction in the next available Correction File.

### **4.4.2.4. Post Violation Notice Sweep**

If the violation trip has been escalated to a Notice of Toll Evasion, or higher, it is up to the Away Agency to determine whether to continue to process the transaction as a violation or to include it in a Pay by Plate or Correction file, as appropriate.

### **4.4.2.5. Sending a Pay by Plate File**

The Away Agency assembles and sends a Pay by Plate File to each Home Agency daily, as long as it has at least one image-based transaction that matches the Home Agency's License Plate Status File.

### **4.4.2.6. Processing a Pay by Plate File**

Upon receipt of the Away Agency's Pay by Plate File, the Home Agency checks the following to determine whether to Accept or reject a transaction received in a Toll Charges File.

#### **4.4.2.6.1. Correct format**

Does the transaction contain all the required information in the correct format? If no, reject with Code "F."

#### **4.4.2.6.2. Too Old**

Did the Away Agency send the transaction within the Home Agency's time limit for posting transactions? If not, reject with Code "O."

#### **4.4.2.6.3. Duplicate**

Is the transaction a duplicate of another transaction? If so, reject with Code "D." Each agency uses its own Business Rules to define a duplicate.

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### **4.4.2.6.4. LP Type**

Does the transaction contain a LP Type if your agency requires one for matching the transaction to an account? If not, reject with Code "L."

### **4.4.2.6.5. Sufficient Funds**

Does the Account associated with the license plate information have sufficient funds to post to the account? If yes, respond with code "A." If not, check against further business rules.

### **4.4.2.6.6. Guaranteed Transactions**

Does the Home Agency consider the Transaction guaranteed according to its own business rules? If yes, this is a guaranteed transaction and should be responded to with code "A." If not, reject with code "I."

### **4.4.2.7. Creating a Reconciled Pay by Plate File**

After the Home Agency processes a Pay by Plate file, it will create a Reconciled Pay by Plate File and send it to the Away Agency. This file will contain a detail record for each transaction received by the Home Agency from the Away Agency in the corresponding Pay by Plate file. The detail record will include a response code regarding the resolution of that transaction as well as posting amount.

### **4.4.2.8. Receiving a Reconciled Pay by Plate File**

The Away Agency, upon receipt of the Home Agency's Reconciled Toll Charges File, reconciles it against their records for use in the monthly settlement process.

### **4.4.2.9. Cost Recovery**

At this time the Peer to Peer Agreements do not contain provisions to allow an Away Agency to assess an additional Pay by Plate fees to recover any violation processing costs incurred - such as image review, postage to mail the notices, DMV Hold Costs, etc. – from an Home Agency for a transaction that posts after such costs have been incurred.

## **4.4.3. Toll Charges and Pay by Plate Files**

### **4.4.3.1. Technical Requirements for a Toll Charges File**

In assembling a Toll Charges File, the Away Agency is responsible for assuring it meets the following business rules:

- TRAN # and EXIT TRAN DATE must be a unique combination.
- TAG ID, EXIT PLAZA, EXIT LANE and EXIT TRAN DATE must be a

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unique combination

#### **4.4.3.2. Technical Requirements for a Pay by Plate File**

In assembling a Pay by Plate File, the Away Agency is responsible for assuring it meets the following business rules:

- TRAN # and EXIT TRAN DATE must be a unique combination.
- LICENSE PLATE, EXIT PLAZA, EXIT LANE and EXIT TRAN DATE must be a unique combination

#### **4.4.3.3. Business Date**

In the Header for all transaction files, the Away Agency provides a Business Day for the file. Each agency will populate the BUSINESS DAY field according to its own requirements.

#### **4.4.3.4. Location Data**

Tolls are usually based on location (Plaza and Lane). Transactions or trips can be classified into the following based on how each agency classifies them based on locations. The Business Rules below correspond to how an Away Agency shall populate the Date, Plaza and Lane fields in transaction files.

##### **4.4.3.4.1. Transaction Type A**

Apply this business rule for trips that charge tolls at a single point (Barrier based tolls) so that the trip has only one toll location. Toll Bridge plazas are examples of barrier based tolls. Since the transaction files contain fields for two toll locations (entry and exit), Away Agencies shall leave the following fields blank:

- ENTRY TRAN DATE
- ENTRY PLAZA
- ENTRY LANE

The Away Agency will provide the toll location by populating the following fields.

- EXIT TRAN DATE
- EXIT PLAZA
- EXIT LANE

##### **4.4.3.4.2. Transaction Type B**

Apply this business rule for trips that for which an Away Agency calculates a toll based on travel between two points (distance based tolls) so that the customer may want to know the location or zone where the vehicle entered the toll facility and the location or zone from which it exited the facility. Express Lanes are examples of this type of toll facility. For such trips the Away Agency shall populate both the entry and exit data in the transaction

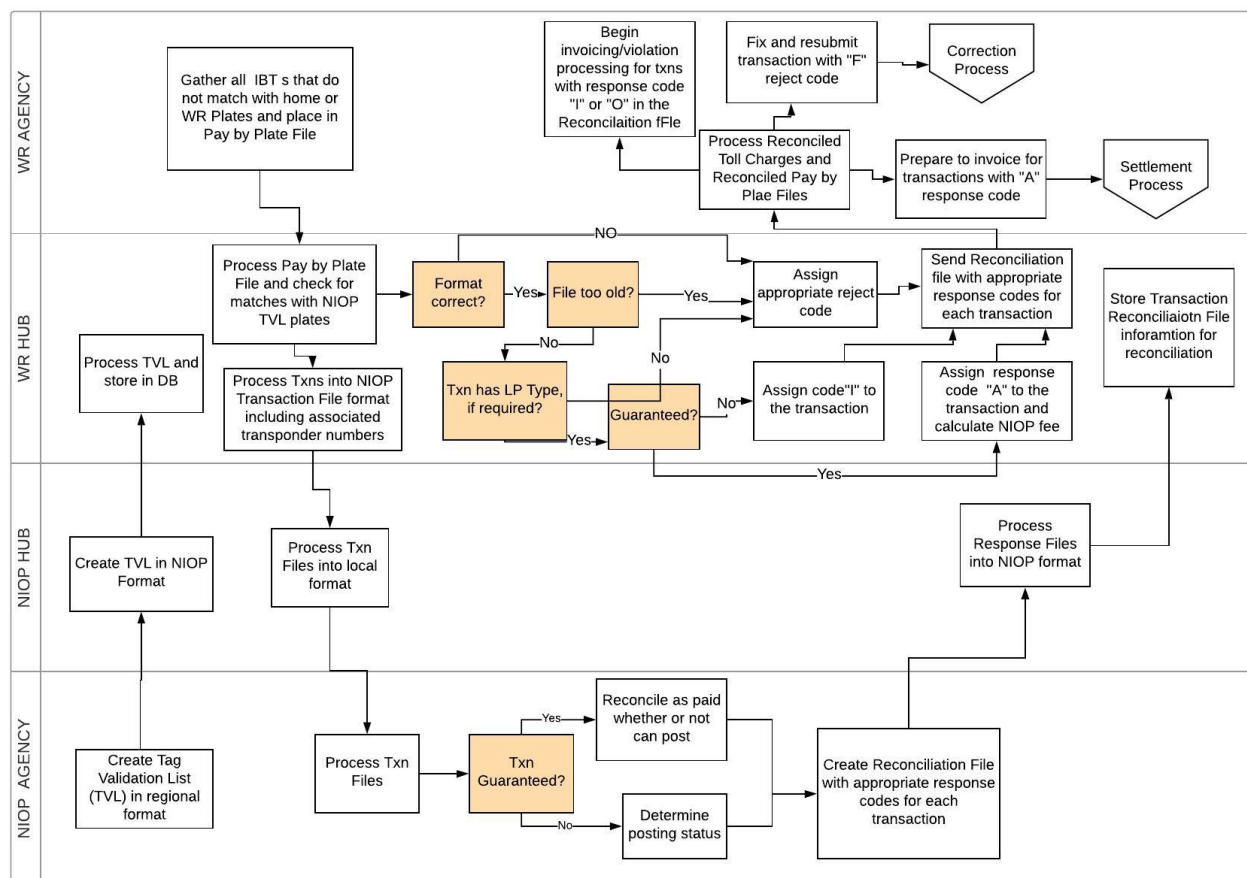
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file.

## 4.4.4. Processing Transactions with the WR Hub – WR Agency as the Away Agency

Western Region agencies will not be able to read NIOP Agency IAG transponders and some will not be able to read NIOP Agency SeGo transponders. Without a Tag Status File containing NIOP transponder information, Western Region agencies will initially treat all tagged NIOP transactions as Image Based Transactions and take and save images of the vehicles according to their own Business Rules. Without a License Plate Status File containing NIOP license plate information, the Western Region agencies will not be able to determine which transactions are NIOP transactions. Therefore, WR Agency exchanges with the WR Hub will not follow the same flow as exchanges between WR Agencies.

The flowchart in Figure 6 below describes the transaction processing flow for all transactions as image-based transactions from Western Region Agencies to the WR Hub to support the business rules that follow.



**Figure 6 Data exchange between a WR agency and the WR hub with the WR agency as the Away agency**

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### **4.4.4.1. Processing Image Based Transactions**

On a daily basis, the Away Agency will check all image based transactions against its Home and other Western Region Agency valid plates from that day's License Plate Status Files. According to its own business rules, the Away Agency may place any or all transactions that do not match its internal accounts or WR information in a Pay by Plate File and send it to the WR Hub.

### **4.4.4.2. License Plate Type**

Since the WR Hub does not send out a License Plate Status File, WR Agencies will not be able to use this to determine which transactions require LP Type. Instead, the WR Hub will maintain a list of agencies which require LP Type to collect. WR Agencies should supply LP Type for transactions they send for reconciliation at these agencies.

### **4.4.4.3. Receiving a Pay by Plate File**

The WR Hub, upon receipt of the Away Agency's Pay by Plate File, integrates it into their database so that it can process the transactions and send files to the NIOP Hub associated with the license plate information for posting.

### **4.4.4.4. Processing a Pay by Plate File**

The WR Hub will check the license plates in the Pay by Plate File against its database of valid NIOP license plates for that transaction day. If the license plate matches a valid NIOP license plate and the WR Hub considers the transaction guaranteed per NIOP Business rules, the WR Hub will respond with an "A" response code for that transaction in the Pay by Plate Reconciliation File. The WR Hub will return a posting amount of the TRAN AMOUNT. The WR Hub will also include the NIOP Fee appropriate for the Regional Hub to which it will send the transaction. Otherwise, the WR Hub will reconcile the transaction with an appropriate reject response code in the Pay by Plate Reconciliation File.

### **4.4.4.5. Assigning Reject Response Codes**

#### **4.4.4.5.1. Correct format**

Does the transaction contain all the required information in the correct format? If no, reject with Code "F."

#### **4.4.4.5.2. Invalid**

If the transaction does not match a valid plate in the NIOP license plate database for that day, the WR Hub will reject the transaction with Code "I."

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### **4.4.4.5.3. LP Type Missing**

Does the transaction include a LP Type for agencies that require this information? If not, reject with code “L.”

### **4.4.4.5.4. Too Old**

Did the Away Agency send the transaction within the NIOP limits of 60 days? If not, reject with Code “O.”

### **4.4.4.6. Creating a Reconciled Pay by Plate File**

After the WR Hub processes a Pay by Plate file, it will create a Reconciled Pay by Plate File and send it to the WR Agency. This file will contain a detail record for each transaction received by the WR Hub from the WR Agency in the corresponding Pay by Plate file. The detail record will include a response code regarding the resolution of that transaction and posting amount.

### **4.4.4.7. Receiving a Reconciled Pay by Plate File**

The WR Agency, upon receipt of the WR Hub’s Reconciled Pay by Plate File, integrates it into their database to reconcile against their records and use for reconciliation in the settlement process.

### **4.4.4.8. WR Hub Processing**

The WR Hub will send the accepted transactions on to the appropriate NIOP Hubs in Transaction Files for payment. Regardless of the response and payments received back from the other NIOP Hubs for these transactions, the WR Hub guarantees payment to the WR Agency for transactions for which it returned an “A” response code.

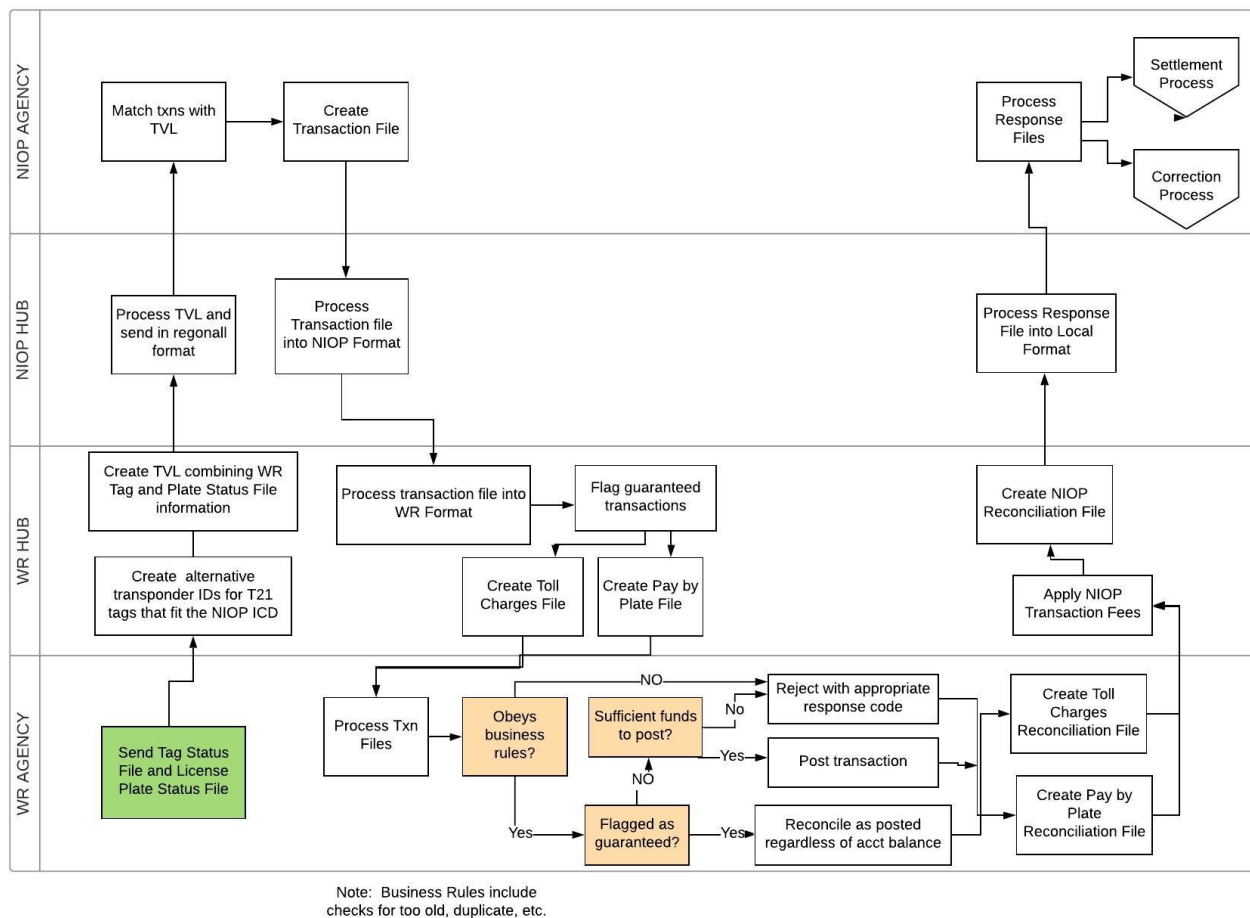
### **4.4.4.9. NIOP Fees**

As stated in 4.4.4.5, the WR Hub will calculate the NIOP Fee for each accepted transaction. The WR Hub will put that NIOP Fee amount in the Reconciled Pay by Plate File.

## **4.4.5. Processing Transactions with the WR Hub – WR Agency as the Home Agency**

The flowchart in Figure 7 below describes the transaction processing flow for transactions from the other NIOP regions through the WR Hub to Western Region Agencies to support the business rules that follow.

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**Figure 7 Hub data exchange between a WR agency and the WR hub with the WR agency as the Home agency**

### 4.4.5.1. Processing Transactions from other regions

On a daily basis, if the WR Hub receives Transaction Files from the other Regional Hubs, the WR Hub will process those transactions for sending to WR Agencies.

#### 4.4.5.1.1. Select WR Agency

The WR Hub will use the information in the Transaction Files as well as the transponder and license plate information in their database to determine to which WR Agency it will send each transaction.

#### 4.4.5.1.2. Guaranteed Transactions

The WR Hub will determine whether a transaction is considered guaranteed according to NIOP Business Rules and set the GUARANTEE field accordingly.

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### **4.4.5.1.3. Image vs transponder based transactions**

The WR Hub will separate transactions into image vs transponder based transactions for inclusion in the appropriate type of file.

### **4.4.5.2. Assembling Toll Charges and Pay by Plate Files**

The WR Hub will assemble transactions for each WR Home Agency into Toll Charges and Pay by Plate files as appropriate and send the files to the WR Agencies.

### **4.4.5.3. Receiving a Pay by Plate or Toll Charges File**

The Home Agency, upon receipt of the transaction file, integrates it into their database and processes the transactions.

### **4.4.5.4. Processing a Pay by Plate File**

The WR Home Agency checks the following to determine whether to Accept or reject a transaction received in a Toll Charges or Pay by Plate File from the WR Hub.

#### **4.4.5.4.1. Correct format**

Does the transaction contain all the required information in the correct format? If no, reject with Code "F."

#### **4.4.5.4.2. Too Old**

Did the Away Agency send the transaction within the NIOP business rule's time limit for posting transactions? If not, reject with Code "O."

#### **4.4.5.4.3. Duplicate**

Is the transaction a duplicate of another transaction? If so, reject with Code "D." Each agency uses its own Business Rules to define a duplicate.

#### **4.4.5.4.4. LP Type Missing**

Does the transaction contain a LP Type, if required by your agency? If not, reject with Code "L." Note: NIOP does not have code "L" so the WR Hub will convert this reject code to a NIOP code.

#### **4.4.5.4.5. Sufficient Funds**

Does the Account associated with the license plate information have sufficient funds to post to the account? If yes, respond with code "A." If not, check against further business rules.



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### **4.4.5.4.6. Guaranteed Transactions**

Does the transaction have the Guarantee field set to indicate that the transaction is guaranteed according to NIOP business rules? If yes, this is a guaranteed transaction and should be and responded to with code "A." If not, reject with code "I."

### **4.4.5.5. Creating a Reconciled Toll Charges or Pay by Plate File**

After the Home Agency processes a transaction file, it will create Reconciled Toll Charges or Reconciled Pay by Plate File and send it to the WR Hub. This file will contain a detail record for each transaction received by the Home Agency from the WR Hub in the corresponding transaction file. The detail record will include a response code regarding the resolution of that transaction as well as posting amount.

### **4.4.5.6. Receiving a Reconciled Pay by Plate File**

The WR Hub, upon receipt of the Home Agency's Reconciled Toll Charges File or Reconciled Pay by Plate File, integrates it into the WR Hub database and uses it to create Transaction Reconciliation Files to send to the other Regional Hubs.

### **4.4.5.7. NIOP Fees**

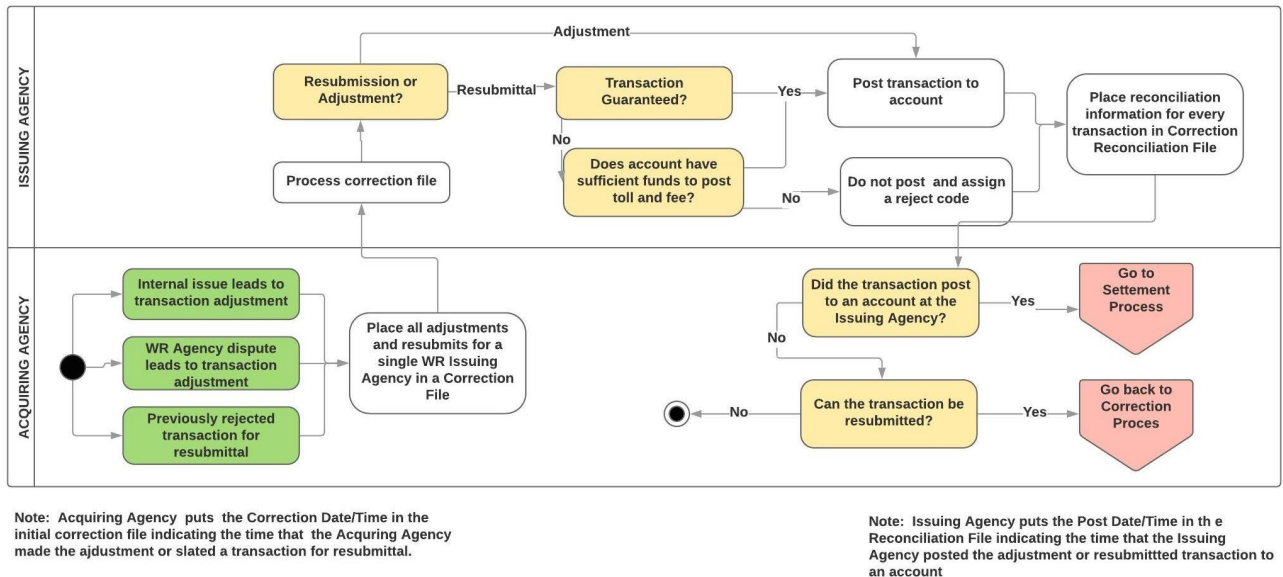
The WR Hub will calculate the NIOP Fees appropriate to the Regional Hub where the transaction originated. The WR Hub will include the fee information in the Transaction Reconciliation File.

## **4.5. Correction Files**

### **4.5.1. Correction Files within the Western Region**

The flowchart in Figure 8 below describes the transaction processing flow for correction transactions within the Western Region to support the business rules that follow.

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**Figure 8 WR correction file process**

### 4.5.1.1. Adjustment or Resubmission

The Away Agency may include two types of transactions in a Correction File, adjustments transactions changing information included in the original transaction or resubmitted transactions for which the agency is trying a second time to collect payment for a transaction.

### 4.5.1.2. Eligibility for Resubmission

The following types of transactions are eligible for resubmission:

- Transactions rejected with invalid formats can be resubmitted with correct format
- Pay by Plate transactions that were previously rejected for negative balance accounts
- Pay by Plate transaction that were previously rejected for not containing LP Type (Code L) may be resubmitted with the LP Type

### 4.5.1.3. One Agency

An Away Agency must send corrections and resubmissions to the same Home Agency to which it sent the original transaction.

### 4.5.1.4. Reversing a transaction before an adjustment

Since the TRAN# for the original and correction transactions are the same, some WR Agency toll systems will treat a correction transaction as a duplicate and will not post it unless the original transaction is reversed first. Therefore, when an Away Agency sends a transaction in a Correction File, the Away Agency must first send a Correction transaction with an "I" in the Correction

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Reason field in order to reverse the original transaction. Then the Away Agency will send another Correction Transaction with the appropriate value in the Correction Reason field in the same file to ensure the account is updated correctly.

### **4.5.1.5. Incrementing Adjustment and Resubmission Counts**

Adjustment Count and Resubmit Count are incremented as follows:

- When a transaction is resubmitted, increment the resubmit count per time the transaction is included in a Correction file. Adjustment count is 0.
- When a transaction is adjusted, increment the adjustment count per time the transaction is adjusted in a Correction file. Resubmit count is 0.
- When an adjusted transaction is rejected with a code that allows resubmittal, the subsequent correction transaction increments the resubmit count, not the adjustment count.

### **4.5.1.6. Assembling and Sending a Correction File**

The Away Agency assembles all adjustments and resubmissions for a Home Agency into a Correction File and sends it to that Home Agency daily, as long as it has at least one correction for that Home Agency.

### **4.5.1.7. Receiving a Correction File**

The Home Agency, upon receipt of the Away Agency's Correction File, integrates it into their database so that they can adjust transactions that their customers took on the Away Agency's facility.

### **4.5.1.8. Order of Processing Corrections**

The Home Agency is responsible for making certain that it processes corrections and resubmissions in the order that the Away Agency sent them.

### **4.5.1.9. Processing a Correction File**

The Home Agency checks the following to determine whether to Accept or reject the adjustments and resubmissions received in a Correction File.

#### **4.5.1.9.1. Correct format**

Does the correction contain all the required information in the correct format? If no, reject with Code "F."

#### **4.5.1.9.2. Too Old**

Did the Away Agency send the correction within the Home Agency's time limit for posting transactions? As a general practice, Home Agencies within

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the Western Region will continue accept corrections for 180 days past the transaction date. However, a WR Agency may choose to reject transactions as too old as early as 60 days past the transaction date. If not, reject with Code "O."

### **4.5.1.9.3. Duplicate**

Is the resubmitted transaction a duplicate of another transaction? If so, reject with Code "D." Each agency uses its own Business Rules to define a duplicate. Agencies do not check adjustments for duplication.

### **4.5.1.9.4. Missing LP Type**

Does the resubmitted transaction have a LP Type, if the agency requires LP type for matching to an account? If not, reject with Code "L."

### **4.5.1.9.5. Sufficient Funds**

Does the Account associated with the resubmission or toll adjustment have sufficient funds to post to the account? If yes, post to the Account and respond with code "A." If not, check against further business rules.

### **4.5.1.9.6. Guaranteed Transactions**

Does the Home Agency consider the Transaction guaranteed according to its own business rules? If yes, this is a guaranteed transaction and should be responded to with code "A." If not, reject with code "I."

### **4.5.1.10. Creating a Reconciled Correction File**

After the Home Agency processes a Correction file, it will create a Reconciled Correction File and send it to the Away Agency. This file will contain a detail record for each transaction received by the Home Agency from the Away Agency in the corresponding Correction file. The detail record will include a response code regarding the resolution of that transaction and amount.

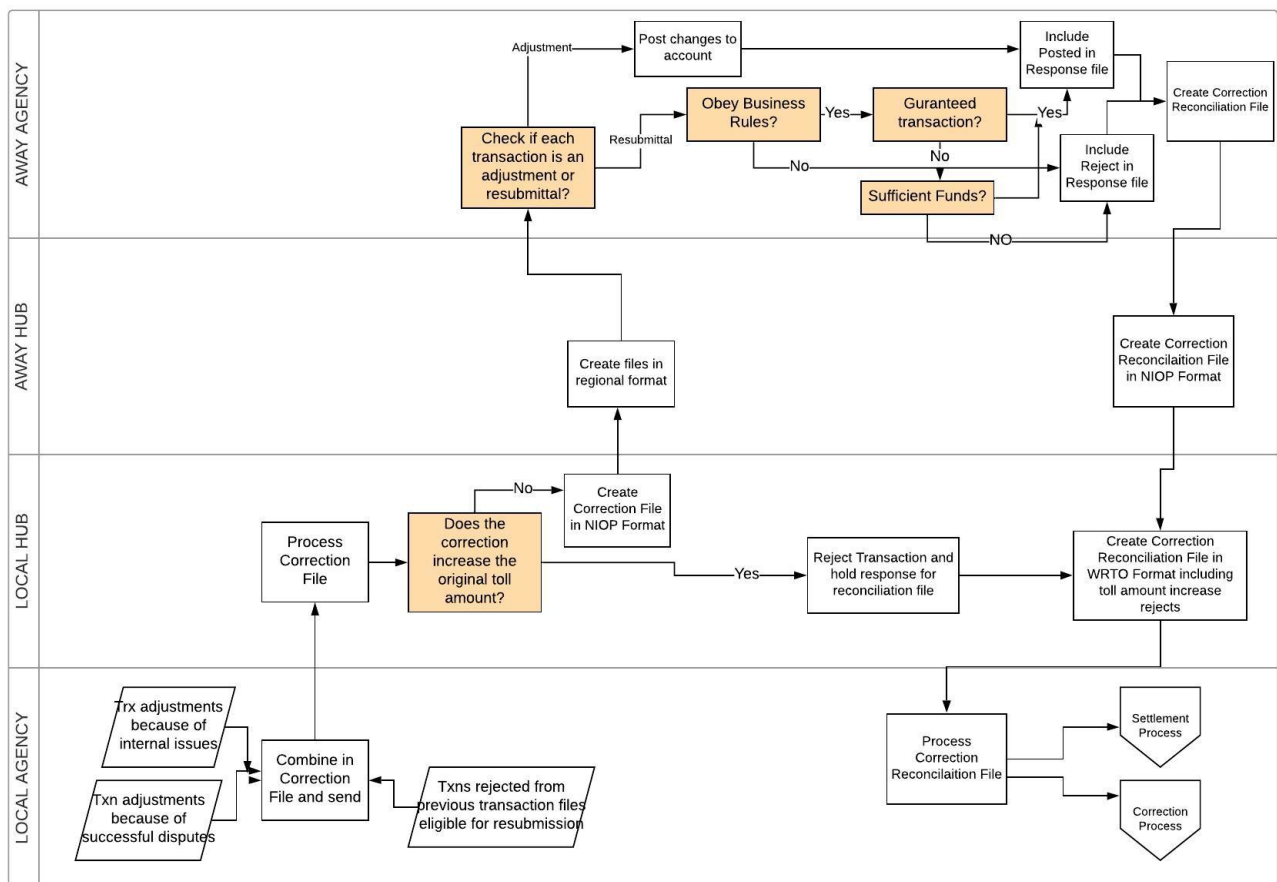
### **4.5.1.11. Receiving a Reconciled Correction File**

The Away Agency, upon receipt of the Home Agency's Reconciled Correction File, integrates it into their database to reconcile against their records and use for reconciliation in the settlement process.

## **4.5.2. Correction Files with Agencies in other NIOP Regions through the WR Hub**

The flowchart in Figure 9 below describes the transaction processing flow for correction transactions within the Western Region to support the business rules that follow.

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**Figure 9 Correction file process between a WR agency and the WR hub**

## 4.5.2.1. Same Business Rules as within WR

The Away Agency follows business rules 4.5.1.1 through 4.5.1.6 in the same manner as exchanges of Correction Files between WR Agencies.

## 4.5.2.2. Processing Correction Files through the Regional Hubs

The Away Agency's Regional Hub processes the Correction File and forwards it to the relevant Regional Hub who in turn processes it and forwards it to the relevant Home Agency.

## 4.5.2.3. Order of Processing Corrections

The Home Agency is responsible for making certain that it processes corrections and resubmissions in the order that the Away Agency sent them.

## 4.5.2.4. Processing a Correction File

The Home Agency checks the following to determine whether to Accept or

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reject the adjustments and resubmissions received in a Correction File.

### **4.5.2.4.1. Correct format**

Does the correction contain all the required information in the correct format? If no, reject with Code "F."

### **4.5.2.4.2. Too Old**

Did the Away Agency send the correction within 180 days of the transaction date? If not, reject with Code "O."

### **4.5.2.4.3. Duplicate**

Is the resubmitted transaction a duplicate of another transaction? If so, reject with Code "D." Each agency uses its own Business Rules to define a duplicate. Agencies do not check adjustments for duplication.

### **4.5.2.4.4. LP Type Missing**

Does the transaction contain a LP Type, if required by your agency? If not, reject with Code "L." Note: NIOP does not have code "L" so if a WR Home Agency sends this rejection code to the WR Hub, it will convert it to a NIOP code.

### **4.5.2.4.5. Sufficient Funds**

Does the Account associated with the resubmission or toll adjustment have sufficient funds to post to the account? If yes, post to the Account and respond with code "A." If not, reject with code "I."

### **4.5.2.5. Creating a Reconciled Correction File**

After the Home Agency processes a Correction file, it will create a Reconciled Correction File and send it to their Regional Hub. This file will contain a detail record for each transaction received by the Home Agency from the Away Agency in the corresponding Correction file. The detail record will include a response code regarding the resolution of that transaction as well as posting amount.

### **4.5.2.6. Processing Reconciled Correction Files through the Regional Hubs**

The Home Agency's Regional Hub processes the Reconciled Correction File and forwards it to the relevant Regional Hub who in turn processes it and forwards it to the relevant Away Agency.

### **4.5.2.7. Receiving a Reconciled Correction File**

The Away Agency, upon receipt of the Home Agency's Reconciled Correction

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File, integrates it into their database to reconcile against their records and use for reconciliation in the settlement process.

### **4.6. Acknowledgement Files**

Agencies send acknowledgement files in order to automatically provide information regarding the receipt of files and whether the receiving system has successfully processed or rejected those files. This allows the early detection and correction of file formation or exchange issues.

#### **4.6.1. Acknowledge Every File**

Agencies will send an acknowledgement upon receipt of every file. If an agency does not receive an acknowledgement for a sent file within 2 hours, which indicates that the file was not successfully sent, and the agency should resend the file.

#### **4.6.2. WR Hub and 2nd Acknowledgement**

Under NIOP Business Rules, the Regional Hubs exchange an extra set of acknowledgements to support determination of transaction guarantees and reconciliation cut offs. The WR Hub will not forward these acknowledgements to WR Agencies except by specific request.

### **4.7. File Exchange Timing**

#### **4.7.1. Exchange Frequency**

Processing and file transfer take place 365/366 days per year.

#### **4.7.2. Tag and License Plate Status Files**

The suggested time for the completion of the upload of all tag status (and plate status) files needed by an entity is set at 1:00 a.m PST.; the suggested time the lanes should be updated (with the tag status files) is no later than 5:00 a.m local time. This is to allow time for the loading of tag lists into lane controllers. This is a guideline. Some agencies may be able to load the tag lists to their lane controllers sooner. If a file (or files) is received past the recommended deadline, the receiving agency should make "best efforts" to use the file(s) received.

#### **4.7.3. Reconciled Toll Charges and Reconciled Pay by Plate Files**

By convention all agencies accept that the Reconciled Toll Charges and Reconciled Pay by Plate Files will be available by 8:00 a.m. local time the following business day after processing with all reconciliation completed no longer than 14 calendar days after receipt. If reconciliation for a particular file is not received within 14 calendar days, the Home Agency shall honor all transactions within the original subject file.

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### **4.7.4. Changes to File Exchange Timing**

By mutual consent, file transfer times can be adjusted.



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### 5. TECHNICAL SPECIFICATIONS

#### 5.1. File Exchange Methodology

Currently the file transfer mechanism utilizes the SFTP (secured file transfer protocol) over the Internet to exchange the data files to/from each agency's SFTP server. The transfer files are created with an agency's proprietary software, but the files conform to the formats described in this document. The files are generated in an ASCII format, and then the sending agency encrypts the file using PGP (Pretty Good Privacy) encryption tools, and the receiving agency's public key. This also has the effect of compressing the data. The sending agency then utilizes the SFTP protocol to send the encrypted files to the receiving agency's SFTP server. The receiving agency possesses its private key and can therefore decrypt the received files. After decryption, the receiving agency processes the data with their own proprietary software.

Requirements:

- Each agency must have a publicly accessible SFTP server, with or without a DNS entry on the Internet. An SFTP exchange can be accomplished with only the IP address.
- The receiving agency will provide a special account and password to each agency that will transmit files to it. This is to prevent anonymous users from accessing the SFTP site.
- Each agency shall install a PGP encryption package suitable for the platform they run on.
- Files will be encrypted before transmission to ensure the confidential data does not fall into unauthorized hands.

#### 5.2. File Naming Conventions

The file names (and extensions) are designed to be able to tell, at a glance, the information contained in the file, its source and its destination. All file names and extensions shall use lowercase characters. The file extensions shall define the type of information contained in the file and shall be shown as indicated in Table 3.

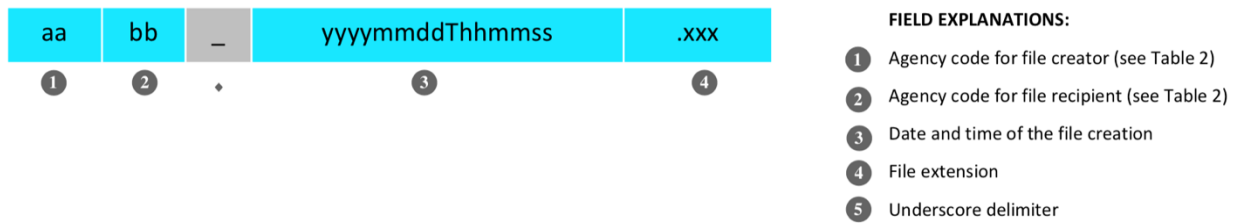
**Table 3 File extensions**

File Description	File Extension	Originate/Response
Tag Status File	tag	Originate
License Plate Status File	plt	Originate
Toll Charges File	tol	Originate
Pay by Plate File	pbp	Originate
Correction File	cor	Originate
Reconciled Toll Charges File	trc	Response
Reconciled Pay by Plate File	prc	Response
Reconciled Correction File	crc	Response
Acknowledgement File	ack	Response

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Each file type shall have a unique sequential numbering scheme for each .plt, .pbp, .tol, .cor, and .tag file going to each agency. For example, when TCA is sending files to SR-91, the .tol files, the .plt files, the .tag files, the .cor files and the .pbp files would be numbered 1,2,3, etc. in sequence, within each file type. So, you would have a .tol with a sequence of #1, a .plt with a sequence # of 1, etc. File names shall use two distinct formats depending on whether the file is an Originate file or a Response file. Originate file names shall have the format: aabb\_YYYY-MM-DDThh:mm:ss.xxx

Where the fields are defined as follows:



Each Agency Code shall correspond to those contained in Table 4 below. Note that Agency Codes are for the purposes of file naming and are not the same as either the Agency ID or Facility Code's that are encoded on transponders.

**Table 4 Agency codes**

Agency Name	Agency Code
BATA/CalTrans	at
Golden Gate Bridge	gg
SANDAG (I-15)	sd
SR-91	sr
TCA	tc
CTV	cv
LA Metro	la
WR Hub	wr
RCTC (I-15)	rc
OCTA (I-405)	oc
ODOT	od
WSDOT	wd
UDOT	ud
Port of Hood River	hr
All agencies	xx

Response file names shall have the format shown below allowing users to determine both the creator of the Original File and of the Response File:

aabb\_YYYY-MM-DDThh:mm:ss\_eeff\_YYYY-MM-DDThh:mm:ss.xxx

Where the fields are defined as follows:

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### FIELD EXPLANATIONS:

- 1 Agency code of response file creator (see Table 2)
  - 2 Agency code of response file recipient (see Table 2)
  - 3 Date and time of the file creation
  - 4 Agency code of originate file creator (see Table 2)
  - 5 Agency code of originate file recipient (see Table 2)
  - 6 Date of time of originate file
  - 7 File extension (see Table 1)
- ♦ Underscore delimiter

Acknowledgement files names shall have the same format as Response file names but the first set of fields will contain information on the acknowledgement file creator and the second set of information shall contain information from the file that the Agency is acknowledging.

### 5.3. General File Format Specifications

The following rules apply to all files used in interoperability:

1. All files will be in ASCII format.
2. All files will use the comma “,” as the field delimiter.
3. All files will use the line feed “LF” (hex 0A) as the record delimiter.
4. Each file will contain:
  - a. A header record
  - b. Detail records
  - c. A trailer record
5. All numeric fields will be fixed size.
6. The plaza field will contain the name of the plaza in plain text for printing on statements in combination with the lane field.
7. All dates and times included in WRTO files will follow the following ISO 8601 formats, see Table 5:

**Table 5 Date and time format**

Field Type	Format	Use
Local Date (Unknown Zone)	2020/01/21 Jan 21, 2020 somewhere	Header: Business Day Trailer: Business Day LPSF Detail: Plate Status Start LPSF Detail: Plate Status End
UTC±	2020-01-21T21:10:30-08:00 Jan 21, 2020 1:10:30 PM	Used for all other D/T

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	Pacific Time	
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8. Please see the ISO 8601 standard for proper use of the time zone indication field.

### 5.4. Toll Charges File

For related business rules, see Sections 4.4.1 and 4.4.3.

#### 5.4.1. Toll Charges Header Record Format

**Table 6 Toll charge header record format**

Field #	Field Name	Field Type	Length	Notes
1	RECORD TYPE	Char	7	Indicates this is a header record (#HEADER)
2	FILE TYPE	Char	4	Indicates this is a toll charges file (TOLL)
3	SEQUENCE #	Integer	6	Sequence # generated by sending agency, has matching entry in the trailer record
4	BUSINESS DAY	Date	10	Business day (YYYY/MM/DD)
5	SOURCE	Char	2	Two letter code of source entity
6	DESTINATION	Char	2	Two letter code of destination entity
7	CREATE DATE	Date/time	25	Transmission file create date/time
8	VERSION	Char	10	"REV A2.0", right justified, space filled to the left.

#### 5.4.2. Toll Charges Detail Record Format

**Table 7 Toll charges detail record format**

Field #	Field Name	Field Type	Length	Notes
1	TAG ID	Char	10	Tag ID in hex format, right justified, space filled to the left. The first two characters will be blank for Title-21 tags. The first three characters will be the Agency Code for 6C tags. Two character Agency Codes will include a leading zero.
2	TRAN #	Integer	10	Transaction # generated by sending agency. This number cannot be zero.
3	TRAN AMOUNT	Money	8	Toll charged for transaction (do not include WR TRANS FEE)
4	ENTRY TRAN DATE	Date/Time	25	Transaction date/time – Entry, Blank if Type A
5	ENTRY PLAZA	Char	22	Entry Plaza in plain text – Blank if Type A
6	ENTRY LANE	Integer	2	Lane identifier – Entry Exit Blank if Type A
7	EXIT TRAN DATE	Date/Time	25	Transaction date/time – Exit.
8	EXIT PLAZA	Char	22	Exit Plaza in plain text –
9	EXIT LANE	Integer	2	Lane identifier – Exit
10	AXLE COUNT	Integer	2	Number of Axles – if Toll is based on axle based classification (Default Value = 0 for Agencies that do not use Axle Based classification). Space Filled.
11	OCCUPANCY	Integer	1	Occupancy if Toll is based on Occupancy – Values: 0 – NA (default); 1 – SOV; 2 – HOV2; 3 – HOV3+; 4 Carpool.  Default Value = 0 for Agencies that do not use Occupancy to determine Tolls.