1038	The Contractor shall provide the capability to automatically display a Flag on account screens with the appropriate Collection Agency ID and date the Collections Placement was sent to the Collection Agency and remove the Flag when an account is no longer in collection.
1039	The Contractor shall provide the capability to associate with the account all correspondence transmitted to the customer/violator from the Collection Agency.
1040	The Contractor shall provide the capability to update the address source on accounts and Violation Notices when new address information is received from one of the Collection Agencies.
1041	The Contractor shall provide the capability to automatically reassign delinquent Violations/transactions to Collections any time a payment used to pay delinquent Violations/transactions in Collections is reversed in the BOS or by one of the Collection Agencies (for example, when a customer makes a payment and that payment is returned by the bank, the receipt of the payment reversal in the BOS shall automatically reassign those delinquent Violations/transactions to the applicable Collection Agency).
1042	The Contractor shall provide the capability to obtain status of all activities and venues pursued by each of the Collection Agencies to collect on the Authority's debt.
1043	The Contractor shall provide the capability to receive payment reconciliation files at intervals (Configurable) from the Collection Agencies for all Collections Placement payments during the period. The reconciliation file shall provide detailed data that reconciles the payments and the Collections fee, if applicable.
1044	The Contractor shall provide the capability to receive Collections Placement balance files, at intervals (Configurable), in order for the BOS to compare to account and Violation Notice balances for auditing purposes.
1045	The Contractor shall provide the capability to generate an Operational Alert Notification when a Collections Placement balance file is received and the results of the processing of the balance file (for example, the file is in balance or it is out of balance).
1046	The Contractor shall provide the capability to compare the balances from each of the Collection Agencies to the balances in the BOS and display the accounts and/or transactions that do not balance.
1047	The Contractor shall provide an aging of all files on Collection Placement.
1048	The Contractor shall provide a report showing the historical records for Collection Placement including but not limited to:
	number of files sent for Collection Placement (historically);
	details of accounts written off and the reason;
	details of amounts collected, stage collected and amount of reductions if any;
	details of accounts actively in Collection Placement and the current collection stage;
	details of accounts on payment plan;

details of accounts with Civil Judgments;
 details of amounts collected and collection fees paid or due to the Collection Agencies, and
 the above historical information for each individual Collection Agency.

1049 The Contractor shall provide the capability to receive Skip Tracing from the Collection Agencies for the Contractor to mail a pre-collection notice.

1.9.3. Collection Agency System Access (Phase II)

In addition to the electronic Interface between the BOS and the Collection Agencies, the Contractor shall provide the Collection Agencies with role-based, secure access to the BOS to access information about debt which has been placed in Collections allowing them to research customer issues. The BOS shall allow for limited entries to be made such as managing a Case (initiating, updating or closing it) or updating with customer contact events such as phone calls and emails sent or received.

1050	The Contractor shall provide a secure role-based access for the Collection Agencies to access the BOS to research customer issues as described within these Requirements.
1051	The Contractor shall provide unique sign-on credentials for each Authorized User (Collection Agency Staff) and only allow them to access debts which have been placed with their Collection Agency.
1052	The Contractor shall provide auditable functionality that allows each Authorized User (Collection Agency Staff) to view, enter and edit data in the BOS for accounts and Violations with debt placed with their Collection Agency, including but not limited to:
	viewing the account
	Viewing associated images;
	initiating a Case;
	reviewing the status of a Case;
	updating a Case;
	closing a Case (based on permissions) and
	updating customer contact history.

1.9.4. License Plate Registration Hold and Hold Release

When delinquent Violation Notices are past due, a Registration Hold can be placed on the license plate if it meets the conditions for Registration Hold. When the past due amount is brought to a threshold or amount (Configurable) (for example, when the balance is paid or the delinquent Violations are reversed), the Registration Hold may be released. The California DMV supports an electronic Interface for initiating Registration Holds and Registration Hold releases. In the event agreements are entered into with other Jurisdictions or responsible entities, the BOS shall support the Registration Hold/Registration Hold release process with these responsible entities.

1053	The Contractor shall provide the capability to Interface with the Jurisdictions that support license plate Registration Holds/Registration Hold releases or vehicle registration suspension.
1054	The Contractor shall provide the capability to apply and receive authorization from the DMV to act as OCTA's processor of record.
1055	The Contractor shall provide the capability to set and maintain the eligibility parameters for the license plate Registration Hold process based upon criteria (Configurable), including but not limited to any combination of:
	plate Jurisdiction and Plate Type;
	account type;
	Flags on the account;
	escalation status;
	past due toll amount;
	past due fee amount;
	past due penalty amount;
	days past due;
	vehicle registration renewal date;
	an open Investigative Review or Administrative Hearing;
	payment plan status;
	 length of time since the last escalation was done (Configurable);
	number of pre-existing vehicle Registration Holds on a license plate;
	Plate Type (temporary plate, permanent plate) and
	Vehicle Identification Number.
1056	The Contractor shall provide the capability to automatically request a Registration Hold if the eligibility criteria (Configurable) are met, for example, if license plate has one delinquent Violation that is past due.
1057	The Contractor shall provide the capability to check the vehicle registration renewal date and update the existing ROV information in the BOS.
1058	The Contractor shall provide the capability to place Registration Holds a number of days (Configurable) before or after the license plate renewal date. The BOS shall place the maximum number of Registration Holds per license plate if the license plate has delinquent Violations.

1059	The Contractor shall provide the capability to round down the Violation amount owed to a whole dollar being sent to the DMV for each Violation for which a Registration Hold is being placed.
1060	The Contractor shall provide the capability to automatically create and exchange Registration Hold and release files with the responsible entities.
1061	The Contractor shall provide the capability in the event of a failure to re-try the Registration Hold and release request based on the type of error.
1062	The Contractor shall provide the capability to automatically release the Registration Hold if resolved and/or paid.
1063	The Contractor shall provide the capability to automatically re-request the Registration Hold if a payment that was received resulted in the release of Registration Hold and then the payment is subsequently reversed (for example, if a check is returned or if a chargeback is received).
1064	The Contractor shall provide the capability to accept and process payments records for Violations from the DMV and waive partial amounts remaining on the Violation Notice(s).
1065	The Contractor shall provide the capability to delay the Registration Hold release by a number of days past the payment date (Configurable) by payment type. For example, if the payment was made by check the BOS should delay the Release by seven days.
1066	The Contractor shall provide the capability for Authorized Users to manually initiate the release of a Registration Hold without resolution of past due amounts.
1067	The Contractor shall provide the capability to display Registration Hold and release status on the account including the date of request and status.
1068	The Contractor shall provide the capability for Registration Hold statuses (statuses that Registration Holds go through), including but not limited to:
	Registration Hold pending;
	Registration Hold sent to DMV;
	Registration Hold Approved by DMV;
	Registration Hold rejected by DMV;
	Registration Hold not placed due to error;
	Registration Hold release pending;
	Registration Hold released by DMV;
	Registration Hold released by BOS and
	Registration Hold not released due to error.
1069	The Contractor shall provide the capability to automatically display Flags on all account screens based upon current Registration Hold status.

1070	The Contractor shall provide the capability, in the Registration Hold history, to accommodate multiple dates and reject reasons for multiple delinquent amounts and potentially multiple plate numbers.
1071	The Contractor shall provide the capability for Authorized Users to manually place and release Registration Holds and automatically update the BOS with the proper status obtained from the DMV.
1072	The Contractor shall provide the capability to add a DMV hold fee to each transaction successfully placed on hold
1073	The Contractor shall provide the capability to create a payable to DMV for the fee owed to the DMV until the fee is paid through the reduction of the DMV payment file.
1074	The Contractor shall provide the capability to establish a link between a temporary plate and the coordinating permanent plate to allow for hold to be placed on the temporary plate after the issuance of the permanent plate
1075	The Contractor shall provide the capability to perform a review of all accounts prior to sending them for DMV hold.
1076	The Contractor shall provide the capability to reconcile Violations marked as on hold in the BOS with the DMV report.
1077	The Contractor shall provide the capability to prepare a written DMV abstract of hold release for the customer.
1078	The Contractor shall provide the capability to Post the monthly DMV payment to the respective Violations-writing off any remaining cents, recording the source of payment as the DMV, and relieving the DMV Payable for the hold fee
1079	The Contractor shall provide the capability to analyze DMV hold rejects and work with the DMV to resolve any issues to maximize the hold success rate.

1.9.5. **Customer-Initiated Reviews**

Customers may contest a Violation(s) by initiating an Investigative Review of the Violation(s). If customer disagrees with the decision, the customer may seek an Administrative Review Hearing and ultimately appeal to Superior Court.

1080	The Contractor shall provide the capability to receive Investigative Review requests, including documents uploaded from the Self-Service Website.
1081	The Contractor shall provide the capability track Investigative Reviews through their completion
1082	The Contractor shall provide agreed upon Investigative Review reduction or dismissal codes that are applied to each Violation contained in the review in an efficient manner.

1083	The Contractor shall provide the capability for an Authorized User to select from a list of reduction or dismissal codes that has a corresponding trip/image processing and financial action, if applicable, generate the appropriate correspondence to the customer or violator stating the results of the review and issue any refunds that may be due (for example, if it is determined the license plate was misread and the Violation was issued to the wrong person, the CSR shall select a code "image error" which will automatically do the following: 1) dismiss the Violation assigned the person who requested the review 2) send the images back for image processing 3) generate a letter to the customer dismissing the Violation 4) refund any payments made).
1084	The Contractor shall provide the capability for an Authorized User to select from a list of codes for outcomes that do not result in the reduction or dismissal of the Violation(s) and automatically generates the appropriate correspondence to the customer stating the result of the Investigative Review, reason for non-dismissal, and processes the associated images and trip(s) accordingly.
1085	The Contractor shall provide the capability to provide a written response to every Investigative Review which includes the reasoning behind the resulting decision. The response letters shall be tied to the Violation dismissal codes so they automatically generate when dismissal action is taken
1086	The Contractor shall provide the capability to receive Administrative Review Hearing requests by mail, phone, in-person or online. If by phone, the account shall be marked for Administrative Review Hearing and a means for providing a written statement from the customer provided.
1087	The Contractor shall provide the capability to determine, receive and process the required amount due prior for an Administrative Review Hearing as well as, calculating eligibility for financial hardship exceptions and reduced amounts.
1088	The Contractor shall provide the capability to schedule the Administrative Review Hearings with the customer and Administrative Hearing Officer within the required timeframes and according to the Business Rules.
1089	The Contractor shall provide an Administrative Hearing Officer who meets the requirements in the California Vehicle Code and Authority.
1090	The Contractor shall provide a second review of all Violations for which an Administrative Review Hearing is requested to ensure the Investigative Review was performed accurately and correct any errors or work with the customer to resolve any extenuating circumstances.
1091	The Contractor shall provide a summary of each Case where and Administrative Review Hearing is requested for Authority review within a week of the Administrative Review Hearing request. The Contractor will work the Authority to resolve Cases if needed.
1092	The Contractor shall provide the Configurable capability to define the data set that goes into the Evidence Package, including but not limited to:
	• summary sheet;
	BOS and manual notes recorded on the account;

	Cases created for the account;
	transponder status change history;
	each Violation Notice and other Notifications;
	customer correspondence;
	customer contacts;
	DMV or ROV source records or Rental Agreements;
	lane health check report from the ETTM System at the time of the transaction;
	Registered account information if applicable;
	history of non-payment;
	• images and
	Recordings of phone calls or scripts of recorded phone calls.
1093	The Contractor shall provide the capability to create the Evidence Package a number of days (Configurable) before the date of the Administrative Review Hearing and print or upload the package to the location specified.
1094	The Contractor shall provide the capability to track information related to the outcomes of Investigative Reviews and Administrative Review Hearings
1095	The Contractor shall provide the capability to offer, establish and manage payment plans for customers who cannot pay the balance due in full.
1096	The Contractor shall provide the capability to provide Investigative Reviews by phone and chat for first contact resolution.
1097	The Contractor shall provide the capability to provide historical data by specified time period for Investigative Reviews and Administrative Review Hearings including but not limited to:
	• # requested;
	• # closed;
	Resolution by type;
	• # outstanding;
	age of outstanding and
	scheduled hearings by date.

1.9.6. System-Generated Evidence Package

1098	The Contractor shall provide the capability to create an Evidence Package containing all information related to the applicable account, violator and Violation Notices, including but not limited to:
	detailed toll transaction data associated with Violation Notices;
	all Violation Notices and Notifications sent to violator;
	all correspondence received from violator;
	images related to Violations;
	all notes related to account, violator and/or Violation Notices and
	any other related Unregistered account activity.

1.10. Customer Satisfaction Survey

The Contractor shall select and provide a Customer Satisfaction Survey Provider Subcontractor to survey customers regarding their experience with the CSC. The BOS will provide the necessary information regarding all customer contacts to the Customer Satisfaction Survey Provider Subcontractor to enable them to survey customers using automated survey tools.

The Contractor shall survey customers through the Services of the Customer Satisfaction Survey Provider Subcontractor. Customer surveys shall be performed through electronic means such as email, through a phone survey, text, via the website or a combination thereof. A survey tool shall be provided which will allow for the creation and Maintenance of a variety of different survey templates. Different survey templates may be selected based on contact channel, individual CSR or account type.

1099	The Contractor shall provide the capability to perform customer surveys through the Customer Satisfaction Survey Provider Subcontractor.
1100	The Contractor shall offer the Survey opportunity to every customer each time they contact the CSC or as requested by the Authority.
1101	The Contractor shall provide information to the Customer Satisfaction Service Provider Subcontractor, which includes but is not limited to:
	• customer name;
	contact channel (such as email, phone or walk-in);
	customer email address and
	CSR name, in the case of customers calling in or chat. clarify for those interactions with CSRs (or other staff).
1102	The Contractor shall provide the capability to track customer contact by contact channel, including but not limited to:

	phone (IVR only, e.g., the customer resolves their issue with the IVR);
	 phone (IVR then CSR, e.g., customer contact which started in the IVR and after attempting action, the customer asked to speak with a CSR);
	phone (CSR only, e.g., the customer immediately requested to speak to a CSR);
	• chat (CSR only);
	• email;
	• text;
	Self-Service Website;
	Self-Service Mobile Application (Phase II and optional) and
	• walk-in.
1103	The Contractor shall, on each survey, ask if the customer would like to be contacted regarding any unresolved concerns.
1104	The Contractor shall provide customer survey capabilities with a combination of features, including but not limited to:
	real-time reporting of survey results to the Authority;
	 real-time Configurable Alerts to the Authority on certain parameters, such as a low survey score (for example, send an Alert each time a customer provides a rating of two or below on any individual question or the survey as a whole) or key word (for example, each time a customer uses certain profane or threatening words);
	 real-time dashboard-style feedback for Authorized Users (such as a Web interface for CSRs to view survey results for their own calls and scoring, in comparison with their peers) and
	survey scoring.
1105	The Contractor shall provide reporting functionality for customer contact data to be provided to the Customer Satisfaction Survey Provider Subcontractor, including but not limited to:
	• date;
	account type;
	CSR and
	contact channel.

1.11. Transponder Inventory

The BOS shall have a transponder inventory and management system that tracks and maintains transponder inventory, manages the sale and return of transponders to customers, identifies and

manages the transponder recall program, and tracks and manages transponder warranty. Inventory levels are required to be monitored regularly by the Contractor and communicated to the Authority to ensure no disruption in transponder availability.

Inventory Definition and Tracking 1.11.1.

The BOS shall keep track of transponders from initial order through final disposal or return to manufacturer.

1106	The Contractor shall provide the capability to validate transponder serial numbers when they are entered into inventory, against the ranges that already exist to ensure that there are no duplicates. This validation shall include the CTOC-issued Facility Code IDs or any corresponding ranges in the future such as ISO 18000-6C and or national Interoperability.
1107	The Contractor shall provide the capability to search the history of a specific transponder entered in the BOS and provide the history of the transponder including account assignment and transactions.
1108	The Contractor shall support the performance of a quarterly physical inventory and monthly reconciliation of transponders.
1109	The Contractor shall provide the capability for an Authorized User to program transponders (for example, reprogram a 2-axle vehicle transponder to a motorcycle transponder).
1110	The Contractor shall provide the capability to manage any number of transponder types, including but not limited to:
	hard-case transponders;
	sticker transponders;
	6c switchable transponders;
	headlight-mount transponder and
	bumper-mount transponders.
1111	The Contractor shall provide the capability to enter global transponder inventory item attributes, including but not limited to:
	transponder description;
	• transponder type;
	model number;
	manufacturer;
	lot, case and tray information;
	version of transponder chip technology;
	1

	transponder communication protocol (single or multi) and
	transponder style.
1112	The Contractor shall provide the capability to enter individual transponder inventory item attributes, including but not limited to:
	model number;
	procurement cost;
	sales price (Configurable);
	purchase price (Configurable);
	manufacture date;
	date received;
	manifest number;
	inventory number;
	• expiration;
	date assigned/purchased;
	date first used;
	location assigned to customer from;
	• staff/BOS assigned by;
	• recall date;
	• replacement;
	warranty start date;
	warranty period;
	swap out date;
	end of life date;
	purchase order number/statement or invoice number;
	agency/facility code;
	• state code;
	• transponder ID number;
	external barcode number;

	transponder manufacturer's number;
	• transponder class;
	ID number;
	activation code;
	• status and
	inventory location.
1113	The Contractor shall provide the capability to enter new transponders into the BOS via several methods, including but not limited to:
	manually;
	file upload and
	barcode using a scanner.
1114	The Contractor shall provide the capability to manually upload a file (manifest) with transponder inventory information using an intuitive and user-friendly process with support for multiple data formats. Functionality shall include but not be limited to:
	a mapping tool which shall enable inventory fields to be mapped to a file;
	a browse button to locate the file;
	 validation of the file prior to import (invalid files shall not be imported, and an error message shall be presented);
	 validation of file contents including the transponder ID based on valid CTOC issued facility codes and
	 feedback of successful processing by indicating the number of records updated and unsuccessful updates with reason codes.
1115	The Contractor shall provide the capability to enter transponders in bulk by entering the starting and ending numbers in a range, for example upload inventory by scanning the first transponder's barcode and the last transponder's barcode.
1116	The Contractor shall provide the capability to track multiple manufacturer warranties based on manufacturer, transponder type or purchase date.
1117	The Contractor shall provide the capability to track customer warranties based on transponder type or purchase date.
1118	The Contractor shall provide the capability to identify transponders to be sold and their sale price.
1119	The Contractor shall provide the capability to track individual transponders by location at end of day, including but not limited to:

	• WIC;
	in transit between customer service locations;
	at one of multiple individual CSRs;
	assigned to an account;
	shipping/receiving locations;
	returned to manufacturer and
	• disposed.
1120	The Contractor shall ensure that individual transponders can only be assigned to a single location at any one time.
1121	The Contractor shall provide the capability to restrict transitions among various inventory item locations, for example, transponders in the "assigned to CSR" location cannot go to the "return to manufacturer" location; it can only go to "inventory" location or "account" location.
1122	The Contractor shall provide the capability to assign an inventory status to each individual transponder, including but not limited to:
	• on order;
	• received;
	tested and ready for issuance;
	• active;
	• inactive;
	deactivated;
	• lost;
	• stolen;
	• returned;
	awaiting cleaning and testing for reissue;
	• disposal;
	• damaged;
	defective and
	• end-of-life.

1123	The Contractor shall provide the capability to change the status for an individual transponder either manually or automatically.
1124	The Contractor shall provide the capability to set a separate restock threshold for all inventory locations.
1125	The Contractor shall provide the capability to set and maintain the transponder reorder thresholds and ranges for all relevant parameters related to transponder quantity levels and lead-time requirements for replenishment by manufacturer.
1126	The Contractor shall provide the capability to send an Operational Alert Notifications(s) before the transponder reorder (from the manufacturer) thresholds are reached. The Alert level can be a percent (Configurable) or number (Configurable) above the re-order threshold.
1127	The Contractor shall provide the capability to audit the physical inventory at intervals (Configurable) and record the results of the audit.
1128	The Contractor shall provide the capability to test transponders to ensure they are correctly programmed and that the external barcode is correctly correlated to the internal programming.

1.11.2. Transponder Ordering

The Authority will place transponder orders directly with the transponder manufacturer or request that the Contractor place the order directly. Regardless of the method, the creation of the order shall happen within the BOS which allows the purchase order to be recorded, and the order to be tracked, received and loaded into inventory in a manner which reduces manual entry and potential errors. A hard copy document shall be generated and shall be part of an order receiving package to verify receipt and close out the purchase order that was generated by a separate system that is not part of this procurement.

1129	The Contractor shall provide the capability to create transponder orders within the BOS, both for orders placed directly by the Contractor and orders placed directly by the Authority.
1130	The Contractor shall provide the capability to change the status of the order and track the order once the associated purchase order has been placed.
1131	The Contractor shall provide the capability to receive the inventory into the BOS.
1132	The Contractor shall provide the capability to enter information when receiving transponders, including but not limited to:
	verification of delivery of each line item;
	verification of quantities for each line item;
	actual quantity received if it does not match quantity ordered;
	name of person receiving inventory;
	location received;

	date received and
	• comments.
1133	The Contractor shall provide the capability to generate a transponder receiving document, including but not limited to:
	• items ordered;
	• item received;
	quantities ordered;
	• quantities received;
	manufacturer or supplier information;
	received by name;
	location received and
	date received.
1134	The Contractor shall provide the capability to make adjustments if the shipment received does not match the original order and track backorders and partial shipments.

1.11.3. **Inventory Fulfillment**

Transponders are assigned to customers via inventory Fulfillment. Orders can be fulfilled at the same time the order is placed in a WIC. When inventory is ordered online or by phone, the order is fulfilled in the order received.

1135	The Contractor shall provide the capability to create transponder orders either at the time of account creation or when individual requests are initiated subsequent to account creation.
1136	The Contractor shall provide the capability to fulfill transponder orders.
1137	The Contractor shall provide the capability to present transponder Fulfillment requests for Fulfillment in the order received.
1138	The Contractor shall provide the capability to create a transponder sale transaction when inventory order is fulfilled including but not limited to:
	full price sale;
	warranty sale;
	sale at no cost (replacement) and
	discount sale (promos and coupons).
1139	The Contractor shall provide the capability to assign multiple types of transponders to an account and associate the transponder numbers to the account.

1140	The Contractor shall provide the capability to reassign inventory items from one account to another.
1141	The Contractor shall provide the capability to replace an existing individual transponder on an account with a different transponder.
1142	The Contractor shall provide the capability to issue individual transponders to customers via mail and at WICs.
1143	The Contractor shall provide the capability to distinguish orders for first time customers separate from existing customers in case additional literature is to be included with the order for new or existing customers only (such as a welcome package).
1144	The Contractor shall provide the capability for transponders delivered by USPS to be activated 24 hours after shipment.
1145	The Contractor shall provide the capability to automatically recognize vehicles with metal oxide windshields by use of a list the Contractor maintains and automatically issue an exterior tag at time of account opening, vehicle addition or transponder request.
1146	The Contractor shall provide the capability to automatically recognize motorcycles by their license plate configuration or information provided by the customer and issue them an exterior transponder at the time of account opening, vehicle addition or transponder request.
1147	The Contractor shall issue a sticker tag (interior or exterior) for every plate listed on the account unless the customer identifies that the vehicle will only be used on a short-term basis, such as rental cars.
1148	The Contractor shall provide the capability to track customer transponder orders as a single order regardless of the number of items requested. For example, if a customer wants one bumper-mount transponder and two switchable transponders, that order shall be a single customer transponder order.
1149	The Contractor shall provide the capability for transponder orders to be searched, for order(s) that meet specified criteria, which can then be viewed, immediately fulfilled, modified or canceled.
1150	The Contractor shall provide the capability to make modifications to the transponder orders prior to fulfilling them. For example, a CSR may need to change the transponder type because the customer's vehicle requires an externally mounted transponder (bumper mount), or add another transponder to the order based on a customer request.
1151	The Contractor shall provide a single customer Fulfillment receipt detailing the entire order. This receipt shall show the vehicle license plate number(s), type, Jurisdiction, make, model, color, transponder(s) or other inventory item(s) quantities, backordered quantities, sale or lease amounts, payment amount and any associated Account Plan(s), if applicable, for each transponder included in that order.
1152	The Contractor shall provide the capability to generate a mailing label or print directly on the mailing envelope when fulfilling inventory orders by mail.
1153	The Contractor shall provide the capability to batch transponder distribution to improve the efficiency of the order Fulfillment process, including but not limited to:

	 identify open transponder orders and assign transponders to the accounts automatically;
	 create batches by transponder type and order type (new, replacement or additional);
	transmit data to the mailing services to generate mailing labels by batch;
	print transponder receipts;
	track the mailing of transponders to customers and
	Batch by zip code for the purposes of receiving bulk mailing discounts.
1154	The Contractor shall provide the capability to perform a quality check of the transponder mailing packages before they are mailed to the customers.
1155	The Contractor shall provide the capability for transponder receipts to be provided to the customer when the Fulfillment takes place in person.
1156	The Contractor shall provide the capability to notify the customer that a transponder(s) has been placed in the mail.
1157	The Contractor shall provide the capability to activate transponders when they are assigned to the account or with a Configurable delay in days when mailed.
1158	The Contractor shall provide the capability to return transponders to stock and update the order, if applicable while preserving full traceability. For example, if a transponder comes back in returned mail, the BOS shall retain the history of the account that the transponder was added to and that the transponder came back undeliverable.
1159	The Contractor shall provide the capability to issue more than one transponder type per vehicle.
1160	The Contractor shall provide the capability to ask the customer if they will need a switchable transponder for carpooling.
1161	The Contractor shall provide the capability to provide the amount due for transponders and allow the customer to override the transponder order.
1162	The Contractor shall provide the capability to guide the customer through the transponder type and quantity: sticker for every car, external for problem vehicles and motorcycles, switchable for carpoolers.
1163	The Contractor shall provide the capability to flag a sticker transponder in an eligible CAV after Configurable # of reads of the vehicle with the authorized eligible CAV plate.
1164	The Contractor shall provide the capability to flag a sticker transponder in a disabled plate vehicle after a number of Configurable reads in the vehicle with the authorized plate.
1165	The Contractor shall provide the capability to provide replacement transponders and calculate the amount due, if any, and restart the vehicle to tag association for eligible CAV and other Special Access Plan vehicles according to the Business Rules.

Transponder Inventory Recycling 1.11.4.

The Contractor will test returned transponders and return to usable inventory those that meet the Business Rules.

1166	The Contractor shall provide the capability to process returned transponders back into the BOS for reissue when the transponders appears to be in good condition and has not reached the end of its useful life.
1167	The Contractor shall receive and return to inventory and issue the customer a credit according to the Business Rules.
1168	The Contractor shall provide the capability to assign returned transponders identified as being re-issuable to a box for tracking and reissue purposes.

1.11.5. 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 Equipment required for testing of transponder will be provided by the Authority.

1169	The Contractor shall provide the capability to test transponders using the transponder
	reader/tester.

1.11.6. Transponder Warranty Replacement for the Customer

Functionality will be required to support customer warranty returns and replacements.

1170	The Contractor shall develop transponder replacement Business Rules based on the transponder type, account type and age of the transponder.
1171	The Contractor shall provide the capability for a customer to request a replacement transponder by all communication channels and at the WIC.
1172	The Contractor shall provide the capability to create a Case for each replacement request initiated by the customer.
1173	The Contractor shall provide the capability for customers to return their old transponder to a WIC and receive a replacement transponder or credit to their account immediately according to Business Rules.
1174	The Contractor shall provide the capability for customers to return transponders to the Authority and receive a refund of the purchase price if the transponder is defective or unused within a Configurable time period.
1175	The Contractor shall provide the capability to send the customer a self-addressed return envelope to send the old transponder(s) back if the customer contacts the BOS via all communications channels to return a transponder(s).
1176	The Contractor shall provide the capability to send a replacement transponder to the customer upon the receipt of a replacement request.
1177	The Contractor shall provide the capability to track the return of the old transponder and update the account upon the successful receipt of the old transponder.
1178	The Contractor shall provide the capability to generate Alerts if an account has more than a number (Configurable) of replacement claims.

1.11.7. Inventory Warranty and Returns to Manufacturer

1179	The Contractor shall provide the capability to enter, modify and delete transponder manufacturer information, including but not limited to:
	• name;
	contact person;
	full address;
	phone numbers;
	rules for returns and
	minimum number of transponders per return shipment.
1180	The Contractor shall provide the capability to create a Return to Manufacturer (RMA) number and associated packing list by manufacturer for each RMA shipment.
1181	The Contractor shall provide the capability for the opening, tracking and closing of RMA shipments by RMA number.
1182	The Contractor shall provide the capability to add or remove specific items from an RMA shipment.
1183	The Contractor shall provide the capability to track warranty payment or replacement transponders due from the manufacturer for returns under warranty.
1184	The Contractor shall provide the capability to pro-rate the warranty period of the returned transponder based on the warranty left on the transponder identified for warranty return.
1185	The Contractor shall provide the capability to accept a spreadsheet that maps old transponders to the new transponders in order to identify the remaining warranty.

1.12. Customer Portals

The Authority will be responsible for the Self-Service Website with exception of the "my account" section, which is the responsibility of the Contractor.

Customers can obtain access to their accounts via customer portals which include the Self-Service Website and the Self-Service Mobile Application (Phase II and optional). These customer portals provide access to real-time account data. The Self-Service Website allows customers to establish accounts, manage their accounts and manage Violations.

1.12.1. Self-Service Website

	The Contractor shall have experienced internal resources and/or partners with significant,
	demonstrable Self-Service Website development expertise in using the latest frameworks,
	tools, navigation and look and feel to optimize the customer experience.
1187	The Self-Service Website shall have a sophisticated, standards-driven, front-end framework
	that is device and browser agnostic, and is completely responsive to all mobile devices.

1188	The Contractor's solution shall facilitate the use of single code bases that can be delivered across platforms and devices and streamline the primary and Regression Testing required when deploying Software updates and Enhancements.
1189	The Contractor shall be responsible for the "my account" portion of the Self-Service Website only. The Contractor shall be responsible for hosting the entire Self-Service Website including Authority controlled content.
1190	The Contractor shall provide the capability for the Authority's designated users to access and update Authority provided content to static pages in accordance with Approved change management procedures.
1191	The Contractor shall use the header/footer provided by the Authority and the Contractor shall be responsible for formatting header/footer in accordance to the Authority portion of the website, including all further updates, Upgrades and Enhancements to the application.
1192	The Contractor shall provide a secure Self-Service Website in English and Spanish and all external Interface portals, that shall be compatible with the versions most utilized by the public and future version releases of the following browsers, including but not limited to:
	Microsoft Internet Explorer;
	Microsoft Edge Browser;
	Mozilla Firefox;
	Google Chrome;
	Apple Safari;
	any other browser reaching five percent market penetration, as Approved by the Authority and
	smartphone/tablet/mobile browsers.
1193	The Contractor shall provide the capability for customers to perform all actions or get information they might ask of a CSR on the Self-Service Website, with certain exceptions based on following a process requiring a specific user role, interaction with a CSR or due to security concerns.
1194	The Contractor shall provide the capability for customers to view, export and print all statements
1195	The Contractor shall provide capability for a customer to search the website for key words or key phrases.
1196	The Contractor shall provide quick links to most frequently used pages
1197	The Contractor shall provide Web navigation optimized for speed regardless of the Web browser used on the secure Self-Service Website.
1198	The Contractor shall provide the capability to support the expiration of cookies.
1199	Detect and advise users of the Self-Service Website if the browser used is old or not supported.
1200	The Contractor shall provide a Self-Service Website accessible on a range of mobile devices, irrespective of differences in presentation capabilities and access mechanisms, including but not limited to smartphones and tablet computers.

The Contractor shall provide a Self-Service Website that paginates content in various ways 1201 corresponding to differences in viewing device characteristics. The navigation structure of the site, and its technical realization shall vary according to the device class being served. 1202 The Contractor shall provide a Self-Service Website that supports the latest versions of mobile operating systems, including but not limited to: • Apple iOS; • Android Web operating system; • Windows Phone operating system and any other browser reaching five percent market penetration, as Approved by the Authority. 1203 The Contractor shall provide a Self-Service Website that supports the latest versions of mobile browsers, including but not limited to: • Safari; Google Chrome and any other browser reaching five percent market penetration, as Approved by the Authority. 1204 The Contractor shall provide Self-Service Website and Self-Service Mobile Application (Phase II and optional) analytics tools that supports all required browsers for the measurement, collection, analysis and reporting of internet data for purposes of understanding and monitoring performance, optimizing website usage, business and market research and to assess and improve the effectiveness of the Self-Service Website. The Web analytics tools shall track all usage on the Self-Service Website including but not limited to: • number of individual hits by screen; • number of specific activities performed; number of page views; number of repeat visitors versus new visitors; bounce rate: abandonment rate: usage reports, for example click-through and navigation reports that monitor efficiency in navigation; continual monitoring of total time to load the website; continual monitoring of website page load times; continual monitoring of individual element load times; continual monitoring of login availability and continual monitoring of overall application availability.

1205	The Self-Service Website and Self-Service Mobile Application (Phase II and optional) analytics tools shall be integrated with the PMMS for notification of performance issues.
1206	The Self-Service Website and Self-Service Mobile Application (Phase II and optional) shall provide Configurable real-time reporting for all services monitored and data collected.
1207	The Contractor shall provide a Self-Service Website that supports the addition of sponsored advertisements Approved by the Authority.

1.12.1.1. Account Access and Security

1208	The Contractor shall provide the capability to control the features and capabilities available to customers based on the account type.
1209	The Contractor shall provide the capability for a customer to select a PIN upon account establishment.
1210	The Contractor shall provide the capability for a customer to create a username and password upon account establishment.
	The web server shall support username and password strength requirements as determined during the Implementation Phase and documented in the Business Rules and
	 the web server shall support two-factor authentication and provide user configurability to enable or disable.
1211	The Contractor shall provide the capability for a user account session time out after a period of inactivity (Configurable).
1212	The Contractor shall provide the capability for an Authorized User to set, based on user-role, the length of inactivity time before a session time out.
1213	Prevent customers from accessing the BOS after a number of failed login attempts (Configurable) within an amount of time (Configurable) and send an Alert message to the PMMS.
1214	The Contractor shall provide the capability for the BOS to automatically reset the customers' access to the BOS after a Configurable amount of time has elapsed since the last unsuccessful login attempt.
1215	The Contractor shall provide the capability for Authorized Users to reset the customer's access to the BOS after the customer's access has been locked due to unsuccessful log on attempts.
1216	The Contractor shall provide the secure capability, without Authorized User interaction, for customers to gain online access to their existing account(s) when they have forgotten their username and/or password. Data necessary to gain online access shall differ depending on account type.
1217	The Contractor shall provide the capability to upon the first logon require the user to complete up to five (5) security challenge questions and answers for use in future account access.
1218	The Contractor shall provide the capability to reset the PIN.

-		The Contractor shall provide the capability to reset the password with requirements for password strength and reuse of previous password restrictions.
	1220	The Contractor shall provide the capability to change username.
		The Contractor shall provide the capability to manage (add/delete/modify) security questions.

1.12.1.2. Account Establishment and Maintenance

1222	The Contractor shall provide an account creation process that logically leads a customer via the Self-Service Website through all of the necessary steps to create an account including, but not limited to:
	Account type;
	Account plan;
	Name (primary and secondary);
	Contact information (billing and shipping);
	Email address;
	Vehicle information;
	Transponder requests;
	Payment information;
	Statement and correspondence method of delivery;
	Opt-in for various communications (texts, e-blasts, statements. marketing) and
	Opt-in for customer survey.
1223	The Contractor shall provide the capability for a customer with an Unregistered account to open a Registered account without having to enter the name, address or vehicle information including the vehicle effective date equal to the first Violation transactions. The customer shall be able to make a single payment for the Violation amount due and the account establishment amount.
1224	The Contractor shall provide on-screen guidance to the customer via the Self-Service Website during the account creation process regarding missing or improperly formatted information. The customer shall not be able to move to the next step until the required information is provided in the appropriate format and the proper action shall be clearly identified.
1225	The Contractor shall provide the capability when opening a new account to automatically identify other account(s) associated with that account name or address and create a Case to allow a CSR to determine whether or not the account is a duplicate.
1226	The Contractor shall provide the capability for the selection of account type and account preferences during the establishment of an account based on anticipated usage and other requirements.
1227	The Contractor shall provide the capability, when adding contact information, to assist the customer by requiring zip code be entered first, then providing a pre-populated city and

	stat. Upon entry of a street address, the BOS should populate options for selection in the USPS standardized address format.
1228	Require that the Authority's terms and conditions and privacy policy are acknowledged and a record of that acknowledgment saved in the BOS prior to establishing an account.
1229	The Contractor shall provide the capability for customers to set and modify preferred communication channels.
1230	The Contractor shall provide the capability for the customer to update all information on their account.
1231	The Contractor shall provide the capability to require a customer to accept revised account terms and conditions and privacy policy upon log in if a change is made to the account terms and conditions or privacy policy.
1232	The Contractor shall provide the capability for electronic email address confirmation during the account creation process. For example, an email is sent to the email address provided with a link by which the customer can confirm they have control of the account. Upon validation, the BOS shall allow for the account creation process to be completed.
1233	The Contractor shall provide the capability for any subsequent additional email addresses added, to perform the email address validation process prior to finalizing the entry on the account. A message shall be displayed indicating the email address shall not be added until the validation process is complete.
1234	The Contractor shall provide the capability for sending an account summary/profile to the customer upon a successful account creation process. The account summary/profile shall also be provided in a printer-friendly format.
1235	The Contractor shall provide the capability for customers to specify "how did you hear about us?" during the account creation process.
1236	The Contractor shall provide the capability for customers to be asked a series of marketing questions (Configurable).
1237	The Contractor shall provide customers with a running amount due (details and summary) as they proceed through the account set-up process including but not limited to:
	account fee at time of account establishment;
	prepaid balance amount;
	transponder cost amount and
	Violation amounts.
1238	The Contractor shall provide the capability for a customer to close his/her Registered account.

Payment Processing *1.12.1.3.*

To provide a customer experience that is intuitive, efficient and meets the needs of a self-service oriented customer, the BOS must provide a well-designed and logical customer self-service payment setup and management process

1239	The Contractor shall provide the capability to determine the payment methods available (Configurable) based on account type.
1240	The Contractor shall provide the capability for the manual replenishment (via existing payment methods on the account) of Registered accounts.
1241	The Contractor shall provide the capability for the customer to set up an automated recurring replenishment via Credit Card and ACH.
1242	The Contractor shall provide the capability for violators to view the images (in compliance with PII requirements) associated with the Notice of Toll Evasion Violation and Notice of Delinquent Toll Evasion Violation and make payments or initiate a dispute by entering the pertinent dispute information.
1243	The Contractor shall provide the capability to automatically create a Case and populate it with all pertinent information when a violator disputes a Notice of Toll Evasion Violation and Notice of Delinquent Toll Evasion Violation.
1244	The Contractor shall provide the capability for the violator to upload file(s) supporting the dispute and automatically associate those files to the Case.
1245	The Contractor shall provide the capability for violators to make a payment and have it applied towards a specific item on the account or the entire balance due, for example Violation Notices, penalties and fees.
1246	The Contractor shall provide the capability to Configure whether or not to allow partial payments for Violation-related activity.
1247	The Contractor shall provide the capability to allow for the payment of Violations and an account replenishment with one payment.
1248	The Contractor shall provide the capability for a customer to intuitively and efficiently add the violating license plate/vehicle to an account, for which they have login access, and have the BOS verify to the customer that the license plate has been added and the transactions/trips have Posted. Provide the capability to notify the customer of any fees and assess those fees to the account in accordance with the Business Rules. If the transactions/trips cannot Post to the account or the license plate cannot be added, in real time the BOS shall notify the customer of the issue and ask the customer to contact the CSC.
1249	The Contractor shall provide the capability, in accordance with the Business Rules, for a customer to intuitively and efficiently establish an account via a "sinner to saint" process offered to violators that meet certain criteria. The BOS shall verify that the account has been created, the license plate/vehicle has been added and transactions/trips have Posted. Provide the capability to notify the customer of any fees and assess those fees to the account in accordance with the Business Rules. If the transactions/trips cannot Post to the account or the license plate/vehicle cannot be added, in real time the BOS shall notify the customer of the issue and ask the customer to contact the CSC.
1250	The Contractor shall provide the capability that once a Violation transaction/trip is transferred to an account, all other eligible Violations automatically transfer to the account in Accordance with the Business Rules.
1251	The Contractor shall provide the capability during the Violation payment process to notify Interoperable/CTOC Agency customers of the process and time constraints for updating

	their account to allow for the Posting of the transactions/trips to their account through the Interoperable/CTOC Agency.
1252	The Contractor shall provide the capability to allow for a primary and secondary Credit Card and provide a processing sequence for when to process each or let the customer select via the website for a one-time payment.
1253	The Contractor shall provide the capability for Violation transaction/trip payments using only the license plate number, Plate Type, Jurisdiction and/or other information (Configurable and based on Business Rules) for authentication.
1254	The Contractor shall provide the capability to prevent customers from making payments in excess of a Configurable amount based on account type.
1255	The Contractor shall provide the capability to configure whether or not customers are allowed to make payments to their accounts for amounts in Collections.
1256	The Contractor shall provide the capability to display a confirmation page that includes payment method details (Credit Card numbers obscured) and amount to be paid prior to customer being allowed to submit a payment.
1257	The Contractor shall provide a clear summary of charges to be processed and require customer confirmation prior to processing payment.

Vehicles, License Plates and Transponders 1.12.1.4.

1258	The Contractor shall provide the capability for customers to request and pay (sale) for new transponders.
1259	The Contractor shall provide the capability for the customer to request a replacement transponder indicating which transponder is being replaced and the BOS should automatically determine the age of the transponder to determine if there is a charge for the replacement according to the Business Rules.
1260	The Contractor shall provide the recommended number and types of transponders in accordance with the customer request and the Business Rules.
1261	The Contractor shall provide the capability to identify vehicles which require an external transponder and Flag them for an external headlamp transponder.
1262	The Contractor shall provide the capability for customers to deactivate a transponder.
1263	The Contractor shall provide the capability to allow for the deactivation of a transponder and reactivation of a transponder.
1264	The Contractor shall provide the capability for customers to add, delete and update a beginning and end date/time for a specific vehicle and license plate at the account level. For example, a customer may wish to add a vehicle on the account for a limited amount of time.
1265	The Contractor shall provide the capability to identify temporary plates and include the expiration date for use in reminding the customer to provide the permanent plate. The temporary plate and permanent plate shall be properly linked with the vehicle and account to facilitate proper System processing and customer service.
1266	The Contractor shall provide the capability for customers to add a license plate number to an account with a back dated start date and time. The allowable back date period shall be

	Configurable. Upon back dating provide the customer with the amount due allowing for a one-time payment for the amount due or payment from the prepaid balance.
1267	The Contractor shall provide the capability for customers to add, delete and manage vehicles.
1268	The Contractor shall provide drop down lists of vehicle makes and models.
1269	The Contractor shall provide the capability to inform the customer at the time of addition if a vehicle plate is active on another account and have them confirm that they want to continue with the addition.
1270	The Contractor shall provide the capability to identify motorcycle vehicle plates using the DMV plate configuration and Flag them for an external headlamp transponder.
1271	The Contractor shall provide the capability to allow the customer to indicate a disabled plate or disabled veteran plate and upload the required supporting documentation and flagging the account for approval by a CSR.
1272	The Contractor shall provide the capability to identify qualified clean air vehicles through the DMV file or customer provided documentation through a document upload and Flag for Clean Air Vehicle validation.
1273	The Contractor shall provide the capability (Configurable) for customers to upload a file with vehicles and associated information, using an intuitive and user-friendly process that supports multiple data formats, for example delimiter-separated data or Excel. Functionality shall include but not be limited to:
	a browse button to locate the file;
	 validation of the file prior to import (invalid files shall not be imported, and an error message shall be presented);
	on-screen feedback of successful processing by indicating the number of vehicles imported and
	send email Notification of successful import.
1274	The Contractor shall provide a downloadable sample vehicle file and data definition document with instructions for each supported format.
1275	The Contractor shall provide detailed instructions regarding the process to upload vehicle information.
1276	The Contractor shall provide the capability to automatically identify account(s) associated with a license plate being added to an account, including but not limited to:
	violator account with unresolved Violations;
	accounts in bad standing;
	accounts closed in bad standing;
	accounts with debt in Collections;
	accounts in bankruptcy and
	accounts where the license plate is active on another account.

The Contractor shall provide the capability to either (determined during design) automatically initiate a Case and direct the customer to call the CSC or get a warning and allow the customer to proceed when the license plate they are attempting to add to their account is active on another account, other than a rental car account.

1.12.1.5. Notifications

1278	The Contractor shall provide the capability for customers to log in, view and print the Notifications associated with their account.
1279	The Contractor shall provide the capability for customers to view and print past account statements or invoices, or to generate an on-demand account statement or invoice (in both PDF or CSV formats), based on selection criteria for all account types.
1280	The Contractor shall provide the capability for violators to view and print Violation Notices including all associated Violation images.
1281	The Contractor shall provide the capability to access Violation Notices, citations and/or collection letters associated with Unregistered accounts and make payments. These documents can be accessed by the violator using the vehicle license plate number and Jurisdiction and the violator account number (or other information to be defined during the Implementation Phase).
1282	The Contractor shall provide the capability upon logging into the account, provide the customer with customized special messages regarding their account such as credit card expired, payment declined, temp plate expired, pay by plates occurring on a specific vehicle.
1283	The Contractor shall provide the capability to display Notifications (Configurable), including but not limited to:
	allowable Flags related to the account;
	transponder in certain status, for example, lost or stolen;
	dispute status;
	payments and
	other information which the Authority wants presented to the customers and other website visitors.

1.12.1.6. Website - Other Functionality

1284	The Contractor shall provide the capability to view transactions history and associated vehicle images for each Image-Based Transaction/Trip. The Contractor shall properly address PII compliance during design.
1285	The Contractor shall provide the capability to initiate disputes.
1286	The Contractor shall provide the capability for a customer to upload a file, including pdf, all Microsoft Excel and Word files, text files, all types of image files and csv files, and have it associated to the account and Case, if applicable. Such uploads shall be structured within a specific process where a category can be assigned and a Case opened for an Authorized User to verify, for example additional evidence for a dispute, or police report for a stolen vehicle.

1287	The Contractor shall provide the capability to limit the types of transactions, screens and activities customers can access via the Self-Service Website based on account type, including but not limited to:
	account Flags;
	account balance;
	account status;
	based on Security Standards and PII and
	based on Business Rules.
1288	The Contractor shall provide the capability to automatically create a contact record in the account history for contacts made via the Self-Service Website.
1289	The Contractor shall provide the capability for customers to enroll in various Account Plans.
1290	The Contractor shall provide the capability for customers to enter promotion codes on their accounts.
1291	The Contractor shall provide the capability for customers to set "opt in" and "opt out" options for certain Notification types, including but not limited to:
	• statements;
	account -related Notifications;
	• texts;
	marketing/newsletters and
	customer surveys.
1292	The Contractor shall provide the capability for customers to enter requests or customer feedback and add a feedback category via drop-down menu options.
1293	The Contractor shall provide the capability to open a Case.
1294	The Contractor shall provide the capability to create Cases for customer requests including but not limited to:
	requests for new accounts;
	toll charges to their account;
	general customer requests via "contact us";
	inventory requests;
	disputes and
	request for call back.
1295	The Contractor shall provide the capability to view Case(s) associated with the account.
1296	The Contractor shall provide secure chat capabilities where account holders can exchange messages with an Authorized User.

	The Contractor shall provide page(s) for information on hours of operation and locations for WICs.
	The Contractor shall provide page(s) for information on hours of operation and phone numbers for the CSC.
1299	The Contractor shall provide page(s) for general information about tolls and toll collection.

Self-Service Mobile Application (Phase II and Optional) 1.12.2.

The Contractor shall provide a Self-Service Mobile Application.

1300	The Contractor shall provide a Self-Service Mobile Application specifically designed to operate with smartphones and tablets.
1301	The Contractor shall provide the capability to access the native functionality of the mobile device to provide enhanced account management and payment functionality. For example, access to the camera or to mobile payment options.
1302	The Self-Service Mobile Application shall provide the same functionality and informational pages as the Self-Service Website, including but not limited to:
	all account update functions;
	all account transaction, payment and other history;
	all payment functionality;
	all notification functionality;
	all transponder management functionality;
	informational pages and
	other functionality determined during the Implementation Phase.
1303	The Contractor shall provide native mobile application capabilities on the Self-Service Mobile Application, including but not limited to:
	push Notifications and
	location-based Services.
1304	The Self-Service Mobile Application shall provide access to the top five (5) United States mobile payment applications, as Approved by the Authority's, that require access to device specific functions.
1305	The Contractor shall provide the capability for processing of all potential payments as well as account replenishment via the implemented mobile payment applications.
1306	The Contractor shall provide a Self-Service Mobile Application that supports the addition of sponsored ads Approved by the Authority.

1.13. Customer Contact Systems

1.13.1. **Telephony Systems Requirements**

The Contractor is required to provide, operate and maintain the telephony system at all CSC and WIC locations (with the exception of the OCTA Store WIC).

The Contractor shall provide a telephony system including an automated call distributor (ACD) that is fully integrated with the BOS for capable of simultaneously handling inbound/outbound customer calls, all CSC Operations calls and on-site BOS personnel internal calls. The telephony system shall be capable of meeting all current and future capacity Requirements.
The telephony system shall meet all future capacity requirements.
The Contractor shall provide a telephony system meeting the following, including but not limited to:
fully integrated with the functional BOS;
fully integrated into the Desktop Environment;
fully integrated into all CSC Operations Facilities and
supports all related functional Requirements contained herein.
The Contractor shall provide a telephony system which is designed to meet the Performance Measures and availability Requirements.
The Contractor shall provide sufficient Session Initiation Protocol (SIP), or equivalent, to support 200 percent of the anticipated call volumes.
The Contractor shall provide a real-time telephony dashboard that allows the Authority and CSC management to monitor the call handling performance.
The Contractor shall provide full integration between the telephony system and the BOS, including but not limited to:
association of all customer inbound/outbound calls with the account;
 association of detail regarding the customer contact with the account, for example, wrap codes and ad-hoc Authorized User entered information and
 the availability, via the BOS application account screens, of all customer contact records.
The Contractor shall provide the capability for the telephony system to be trained to identify key words/phrases and notify an Authorized Users in real-time or upon request.
The Contractor shall provide an integrated CSR quality review functionality such that the reviewer can listen to the call, watch the recorded screen movements and score the call against the Configured criteria.
The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the call.
The Contractor shall provide the capability for Authorized Users to add/delete/modify survey questions for an after-call survey.

1318	The Contractor shall provide the capability for the telephony system to provide a survey for the customers after the call.
1319	The Contractor shall provide the capability for Authorized Users to obtain the results of the after-call survey.
1320	The Contractor shall provide the capability to allow a supervisor to monitor or participate in real time the phone conversations between the CSR and the customer and view CSR screen navigations, including but not limited to:
	• just listen;
	listen and talk only to CSR (coach) and
	participate in a three-way call with the customer.
1321	The Contractor shall provide the capability for the Authority to remotely and non-intrusively monitor live calls.
1322	The Contractor shall provide the capability for the Authority to remotely review all recorded calls randomly of specifically categorized by, including but not limited to:
	• CSR;
	call subject;
	specific customer account;
	call date/time;
	escalation and
	customer behavior.
1323	The Contractor shall provide the capability for English and Spanish language options.
1324	The Contractor shall provide automated call routing based on customer selections. For example, if the customer selects the Spanish language option and then wishes to pay a Violation Notice, the call is sent to a Spanish-speaking CSR with the ability to accept payments.
1325	The Contractor shall provide automated call distribution, including conditional routing to qualified Authorized Users.
1326	The Contractor shall provide for call routing based on conditions, including but not limited to:
	• time of day;
	day of week;
	Holiday schedule;
	planned outage;
	wait times (Configurable) and
	call volumes (Configurable).

1327	The Contractor shall provide the capability for Authorized Users to configure the relevant parameters related to call handling, including but not limited to:
	service levels;
	skill levels;
	language selection;
	phone number and hours of operation for contact center;
	• locations of WICs;
	remote/other call handling locations;
	conditional escalations;
	prioritization of queues;
	call routing rules;
	call recording rules;
	call wait-time rules;
	music on hold selections and
	message on hold selections.
1328	The Contractor shall provide the capability to specify and manage service levels.
1329	The Contractor shall provide the capability to notify Authorized Users regarding service level performance.
1330	The Contractor shall provide the capability to automatically move contacts between service groups to meet service levels and key performance indicators.
1331	The Contractor shall provide the capability to prioritize contacts.
1332	The Contractor shall provide the capability to reprioritize contacts in queue.
1333	The Contractor shall provide the capability to restrict outbound calling to only specific users.
1334	The Contractor shall provide the capability to make outbound pre-recorded calls.
1335	The Contractor shall provide the capability to manage outbound call campaigns.
1336	The Contractor shall provide the capability to manually initiate automated outbound calls to accounts that meet specified criteria (for example, initial collections activities based on information provided by the Collections Agencies).
1337	The Contractor shall provide the capability for Authorized Users to be designated for both outbound and inbound calling.
1338	The Contractor shall provide the capability to record and activate new initial messages to be heard by all callers, for example Maintenance messages that the IVR is down or that the CSC is closing early.

1339	The Contractor shall provide the capability for virtual queuing, which allows customers to hang up while still keeping their place in the queue and receive a call a back when it is their turn rather than waiting on hold.
1340	The Contractor shall provide the capability to notify callers of the estimated wait time either on hold or for a call back.
1341	The Contractor shall provide expected wait time messages during the time the customer is on hold.
1342	The Contractor shall provide recorded audio while customers are on hold.
1343	The Contractor shall provide the capability to record messages to be played to on-hold customers.
1344	The Contractor shall provide for the interspersing of music for pre-recorded on-hold messages.
1345	The Contractor shall provide computer telephony integration to the BOS to display the user account, including but not limited to:
	screen pop based on inbound caller ID;
	screen pop based on caller-entered information and
	screen pop notifying CSR that customer has successfully authenticated.
1346	The Contractor shall provide the capability for all inbound and outbound calls to be recorded.
1347	The Contractor shall provide the capability to prevent recording, transmitting, or storage of Credit Card information within or through the BOS or OCTA network, for example, for the purpose of tokenization, transfer the warm call to the Merchant Service Provider for payment and once payment is completed transfer back to CSR.
1348	The Contractor shall provide workforce management tools, including but not limited to:
	forecasting contact volume based upon historical trends;
	managing key performance indicators;
	dashboard monitoring of key performance indicators;
	real-time reports for monitoring key performance indicators and
	call recording on demand or automatically.
1349	The Contractor shall provide supervisory management tools, including but not limited to:
	manage call recording profile by Authorized User;
	chat electronically with Authorized Users;
	silently monitor calls;
	initiate a three-way call;
	remove the Authorized User from the call;
	access real-time agent performance statistics and

	access real-time group performance statistics.
1350	The Contractor shall provide the capability for Authorized Users (for example Authority staff) to remotely access real-time and historical performance information, including but not limited to:
	overall customer call queue information;
	all wait time and call handling times;
	 specific call queue information, for example, information about only the Spanish queue or the dispute queue;
	chat queue information;
	key performance indicators and
	active Authorized Users.

1.13.2. IVR System

The IVR System allows allow customers to perform all actions that they might ask of a CSR with the exception of certain functions that are specific to the role of an Authorized User, for example adding certain Account Plans or changing the name on an account. The IVR must provide all required functions in both English and Spanish.

1351	The Contractor shall provide sufficient IVR processing capacity to support 200 percent of the anticipated call volumes and shall have the capability to provide additional capacity ondemand.
1352	The Contractor shall provide the capability to configure the IVR System, including but not limited to:
	allowable number of failed authorization attempts;
	allowable number of invalid responses and
	allowable idle time.
1353	The Contractor shall provide the capability to view and configure the phone tree in graphical manner.
1354	The Contractor shall allow for custom IVR messages to be immediately recorded and inserted as needed and requested.
1355	The Contractor shall provide the capability for standard messages to be rotated in the IVR as needed or requested.
1356	The Contractor shall provide the capability for an Authorized User to have role-based access to the system to make all types of common IVR changes.
1357	The Contractor shall provide directed dialog natural language speech recognition for all IVR services, recognizing the customers voice for identity verification, option selections, navigation and customer-provided information such as account information, Violation number, plate number, etc., and for customer accessing of account and all other information provided by the IVR.

Support bi-lingual (English and Spanish) interaction, and the Contractor shall provide the Interface that supports bi-lingual options for customer interaction.
Support various modes of operation, including but not limited to:
CSC open hours when the IVR and CSR options are available to service the customer;
CSC off-hours when only the IVR is available to service the customer and
 conditions where the BOS is not functional, CSC is not open for operations, but the IVR System is operational.
The Contractor shall provide the capability to verify customer identity and authorization prior to transferring the customer to a CSR. The verification authorization process shall be automated to minimize any delays for the customer.
The Contractor shall provide the capability to pop-up the customer account or Violation information on the BOS screen so the CSR has all the pertinent information available prior to the call being received by the CSR.
The Contractor shall provide for the retention of account number, Violation Notice number or other entered information (excluding any Credit Card information) to be made available to the CSR who takes the call should the customer exit the IVR and wish to speak to a CSR.
The Contractor shall provide the capability for the caller to execute multiple options within the same call, for example return to previous menu and repeat prompt options.
The Contractor shall provide English and Spanish speaking customers the ability to respond to the IVR by pressing designated keypad buttons on their phone or saying a response.
The Contractor shall provide a single IVR recording voice talent per supported language and have consistency in voice volume and intonation throughout the Operations and Maintenance Phases.
The Contractor shall provide the capability to fully integrate with the Merchant Service Provider Credit Card information while maintaining compliance with tokenization and PCI DSS Requirements.
The Contractor shall provide the capability for customers to manage their account.
The Contractor shall provide the capability for customers to access the account using the PIN and one other piece of information, including but not limited to:
• caller ID (ANI);
account number;
license plate number;
transponder number and
Violation Notice number.
The Contractor shall provide the capability to limit the types of transactions and activities customers can access via the IVR based on account types, including but not limited to:
• account Flags;

	account balance;
	account status;
	Account Plan;
	account type and
	Business Rules.
1370	The Contractor shall provide the capability for customers to add, edit and remove Credit Cards associated with the account.
1371	The Contractor shall provide the capability for customers to make a one-time payment to the account.
1372	The Contractor shall provide the capability for customers to enroll in auto replenishment and configure replenishment information.
1373	The Contractor shall provide the capability for customers to make a payment using an existing payment method on the account without having to re-enter the payment method information.
1374	The Contractor shall provide the capability to accept Credit Card payments via tokenized method.
1375	The Contractor shall provide the capability to prevent customers from making payments in excess of an amount based on account type (Configurable).
1376	The IVR shall not store any of the Credit Card information that is input, including in recordings and logs.
1377	The Contractor shall provide detailed tracking of payments processed via the IVR.
1378	The Contractor shall provide an audio summary for the customer, including payment method details (last specific number of digits on the Credit Card) and amount, and request confirmation prior to allowing the customer to submit a payment.
1379	The Contractor shall provide the capability for customers to make a payment and have it applied toward the account balance or a specific item on the account.
1380	The Contractor shall provide the capability for violators to make a payment and have it applied toward a specific item on the account.
1381	The Contractor shall provide the capability for customers to obtain the last "x" number of toll transactions (Configurable).
1382	The Contractor shall provide the capability for customers to obtain the last "x" number of Financial Transactions (Configurable).
1383	The Contractor shall provide the capability for customers to obtain the balance on the account.
1384	The Contractor shall provide the capability for customers to request statements with the option to select the delivery method.
1385	The Contractor shall provide the capability for customers to add, edit and remove vehicles and license plates from the account.

1386	The Contractor shall provide the capability for customers to order transponders and mounting strips.
1387	The Contractor shall provide the capability for customers to report lost/stolen transponders.
1388	The Contractor shall provide the capability for customers to update the PIN.
1389	The Contractor shall provide the capability for customers to hear Notifications that have been sent.
1390	The Contractor shall provide the capability for customers to receive a confirmation by preferred channel when account updates or payments are made via the IVR.
1391	The Contractor shall provide the capability to automatically create a contact record in the account history for contacts made via the IVR.
1392	The Contractor shall provide IVR System reports that help determine how the IVR is functioning and its effectiveness, including but not limited to:
	the number of calls routed to the IVR;
	abandon rate;
	account Maintenance activities performed;
	payments processed;
	transaction history accessed;
	customer support requests;
	general information obtained and
	the number of calls transferred to a CSR from the IVR.

1.13.3. **Email**

1393	The Contractor shall provide the capability to service and manage inbound/outbound customer emails.
1394	The Contractor shall acquire new email domains Approved by the Authority for use by the new BOS;
1395	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the email.
1396	The Contractor shall provide the capability to respond to customer inquiries with precompleted (canned) responses that provide variable inputs.
1397	The Contractor shall provide the capability to estimate and/or program the response time to a customer's email.
1398	The Contractor shall provide the capability to send e-blast emails to all customers with an email address.
1399	The Contractor shall provide the capability for English and Spanish language options.

1400	The Contractor shall provide automated email distribution, including conditional routing to qualified Authorized Users.
1401	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in email communication.
1402	The Contractor shall provide full integration between the email system and the BOS in association with the account such that emails are able to be viewed from the customer account in BOS.
1403	The Contractor shall provide automated reporting of all email correspondence by subjects (wrap codes) and response times.

1.13.4. Fax

1404	The Contractor shall provide the capability to service and manage inbound/outbound customer faxes.
1405	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the fax.
1406	The Contractor shall provide full integration between the fax system and the BOS in association with the account such that faxes are able to be viewed from the customer account in BOS.
1407	The Contractor shall provide automated reporting of all fax correspondence by subjects (wrap codes) and response times.

1.13.5. Chat

1408	The Contractor shall provide the capability to service and manage inbound customer chat sessions.
1409	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the chat.
1410	The Contractor shall provide the capability to respond to customer inquiries with precompleted (canned) responses that provide variable inputs.
1411	The Contractor shall provide the capability to estimate and/or program the response time to a customer's chat request.
1412	The Contractor shall provide the capability to configure the ability to respond to multiple chat sessions concurrently.
1413	The Contractor shall provide the capability to provide a survey for the customers after the chat.
1414	The Contractor shall provide the capability for English and Spanish language options.
1415	The Contractor shall provide the capability for the customer to have a full record of the entire chat session emailed to them.

1416	The Contractor shall provide the capability to record the full chat session.
1417	The Contractor shall provide automated chat request distribution, including conditional routing to qualified Authorized Users.
1418	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in chat sessions.
1419	The Contractor shall provide full integration between the chat system and the BOS in association with the account such that chats are able to be viewed from the customer account in BOS.

1.13.6. Text

1420	The Contractor shall provide the capability to service and manage inbound customer text sessions.
1421	The Contractor shall provide the capability for CSRs to select and enter the reason(s) for the text.
1422	The Contractor shall provide the capability to respond to customer inquiries with precompleted (canned) responses that provide variable inputs.
1423	The Contractor shall provide the capability to estimate and/or program the response time to a customer's text request.
1424	The Contractor shall provide the capability to provide a survey for the customers after the text.
1425	The Contractor shall provide the capability for English and Spanish language options.
1426	The Contractor shall provide the capability to record the text responses.
1427	The Contractor shall provide automated text distribution, including conditional routing to qualified Authorized Users.
1428	The Contractor shall provide the capability to prevent recording or accepting of Credit Card information in text communication.
1429	The Contractor shall provide full integration between the text system and the BOS in association with the account such that text messages are able to be viewed from the customer account in BOS.

1.14. Financial Requirements

These financial Requirements describe the functionality that must be present in the BOS for the Authority to service customers and to record financial activity related to the BOS in its general ledger system.

The Authority use a modified accrual method of accounting and prepare financial statements in accordance with GAAP and GASB using a June 30 Fiscal Year end.

It is important that revenues associated with tolls are presented separately from other revenues (for example, fees and fines) and separated by Toll Facility. The Authority utilizes reports detailing

historical collections to analyze and estimate future revenues from Violations. For this reason, it is important that the reporting enables the Authority to analyze the period in which Violations occurred versus the period in which those Violations were paid.

Prepaid tolls shall be deposited to a Bank Account held by the Authority until such time as an action on the account causes such funds to be depleted. Such actions include but are not limited to: customer incurring tolls on an OCTA Toll Facility; customer incurring tolls on an Interoperable Agency Toll Facility; account incurring a fee; returned check being processed on the user account; customer requesting a refund and customer requesting account closure.

The BOS is the conduit between the Authority and customers; Interoperable Agencies, and Third-Party Service Providers. The Contractor shall reconcile all transactional and financial interactions between the BOS and customers; Interoperable Agencies and Third-Party Service Providers. The Contractor also shall also reconcile all transactional and financial interactions between the BOS and the Authority.

1.14.1. General Financial Requirements

Financial reports shall not change once the Revenue Day is closed. The Revenue Day is typically closed by a semi-automated process once a series of reconciliations is performed to ensure all transactions have been appropriately received and processed. While immaterial variances and discrepancies (for example, if a handful of transactions were not processed) may be corrected after the Revenue Day has been closed, material discrepancies (for example, an entire unprocessed payment or transaction file) must be corrected before the Revenue Day is closed. Once the Revenue Day is closed, any adjustments or corrections to transactions that occurred in that Revenue Day must be made in the current Revenue Day.

The Authority does not intend to use the BOS as its general ledger system, nor does the Authority intend to feed data from the BOS automatically to its general ledger. The Authority intends to use exports and reports from the BOS to record the financial entries into the Authority's financial system. The BOS must utilize GAAP-compliant methods to record financial activity between the Toll Facilities and the BOS and between the BOS and customers; Interoperable Agencies and Third-Party Service Providers.

1430	The Contractor shall provide an integrated, Configurable, GAAP-compliant accounting Module for all transactions.
1431	The Contractor shall provide for double entry recording of all Financial Transactions.
1432	Separate financial data shall be maintained for each CTOC Agency, each Interoperable Agency, each Collection Agency and each Third-Party Service Provider.
1433	The Contractor shall create automatic journal entries for recording and tracking all transactions and payment events.
1434	The Contractor shall develop a journal entry template for every BOS transaction that impacts revenue, liability balances (for example, Registered or Unregistered accounts) or asset balances (for example, accounts receivable) to be Approved by the Authority.
1435	The Contractor shall provide an audit trail for each transaction, which shall reflect the source of each transaction, all adjustments to the transaction and the current status of the transaction and/or the final disposition of the transaction.

	Every payment that resulted in a receivable being marked paid shall be traceable to the receivable(s) it paid.
1437	Every paid receivable shall be traceable to one or more payments that were allocated to its payment.

1.14.2. Transaction Recording

Toll transactions are initiated by an originating Toll Facility through transmission of a transaction/trip from the ETTM System, through a CTOC Interface or through an Interoperable Agency Interface to the BOS and Posted to user accounts or otherwise processed. The Authority is currently Interoperable with all California toll agencies through their participation in CTOC. The Authority intends to become Interoperable with other Interoperable Agencies outside of CTOC during the Term of the Agreement. These transactions also are Posted against the Financial Accounts. These include transactions such as a toll or a fee and the transaction activities that affect them, such as billing a transaction or sending it to collections. All transactions and transaction activities are recorded against Financial Accounts.

1.420	December 11 DOC estriction in all discrete materials
1438	Record all BOS activities, including but not limited to:
	 when a new transaction/trip is received from the ETTM System;
	 when an amendment is made to a transaction/trip by the BOS;
	when an amendment is made to a transaction/trip by a Collection Agency;
	when a new or amended transaction is received from a CTOC Agency;
	when a new or amended transaction is received from an Interoperable Agency;
	when a fee, penalty or any transaction is assessed by the BOS;
	when a fee, penalty or any transaction is collected;
	when a fee, penalty or any transaction is waived, voided or otherwise reversed;
	when a fee, penalty or any transaction is adjusted and
	 when there is a change in the status or workflow stage of a fee or penalty or another transaction.
1439	All entries to the BOS shall consider payable and receivable balances between, including but not limited to:
	the customer and the BOS;
	the BOS and the Authority;
	the BOS and Collection Agency;
	the BOS and CTOC Agencies;
	the BOS and Interoperable Agencies and
	the BOS and Third-Party Service Providers.
1440	The BOS shall provide the capability of recording a payable to or receivable from the Authority, a Collection Agency, a CTOC Agency, an Interoperable Agency, or a Third-Party

	Service Provider simultaneously with the recording of a customer payment against a transaction.
1441	Create all financial entries as individual records, which may be used in combination with other financial entries to make a net effect, but do not allow the original entry to be modified.
1442	Ensure each debit entry to a Financial Account has a corresponding and equal credit amount and each credit entry to a Financial Account has a corresponding and equal debit amount so the Financial Accounts balance at all times.
1443	The Contractor shall provide reports in summary and in detail on the Financial Accounts. BOS reports shall be provided that reconcile to the Financial Accounts.

1.14.2.1. Fee and Penalty Transaction Recording

Fees and penalties are charged to customers at a variety of different escalations in status or workflow stage, including but not limited to:

- when a Notice of Toll Evasion Violation is generated;
- when a Notice of Delinquent Toll Evasion Violation is generated;
- when transactions/trips are accepted for Registration Hold;
- when transactions/trips are sent to Collections and
- when a FasTrak account is sent to Collections.

Fees may also be charged when certain transactions/trips are Posted to an account, including but not limited to returned checks, non-sufficient funds (Credit Cards) chargebacks, failed FasTrak account replenishment, Excessive I-Tolls and for accounts below the Insufficient Balance Threshold.

Fees and penalties can be incurred at the trip level or at the account level.

1.14.3. Customer Transaction Settlement

Customer transaction settlement is the payment of tolls, fees and penalties by the customer. Customer transaction settlement also includes any payment reversals, chargebacks and refunds.

Funds collected from customers and Interoperable facilities are deposited into Bank Account(s) established by the Authority. Payments are issued from these accounts(s) including:

- 1. Customer Refunds issued by check to customers.
- 2. Payments are made to Interoperable facilities.
- 3. Funds are deposited and held in a BOS Bank Account until refunded to customers, paid to Interoperable Agencies or distributed to the Authority.

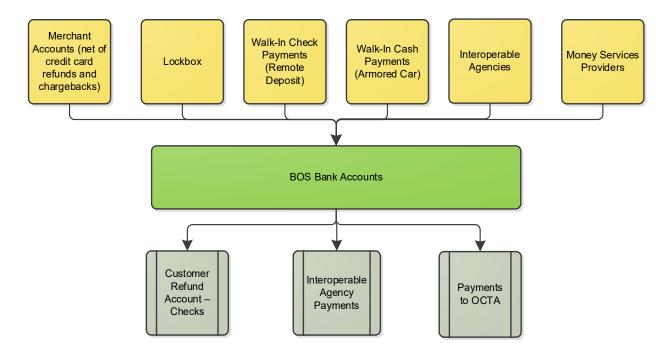


Figure 1-1 Customer Transaction Settlement

1.14.3.1. Customer Payments

Payments and other receipts shall be processed by the BOS in accordance with the following Requirements:

Payments are collected from the following payment sources. The number and names of 1444 payment sources shall be Configurable and include but are not limited to: merchant accounts; DMV; Collections: Lockbox (optional); check payments; cash payments (processed at WICs); Interoperable Agencies and Franchise Tax Board. 1445 The Contractor shall provide the capability to establish deposit accounts within the BOS and map those deposit accounts to BOS Modules, including but not limited to Financial Account, deposit reports and bank reconciliation. For example, deposits to the Lockbox Bank Account (if the Contractor elects to use one) are recorded in the Financial Account associated with the Lockbox Bank Account.

1446	The Contractor shall provide the capability to map deposits by payment source to default Bank Accounts. For example, deposits received from the Merchant Service Provider are mapped in the BOS as received from the Merchant Service Provider and being deposited to the Bank Account to which the Merchant Service Provider makes its deposits.
1447	The Contractor shall provide the capability to capture the bank deposit date and associate it with the payment transaction.
1448	Funds shall be disbursed from the following payment sources. The number of names of payment sources shall be Configurable and include but are not limited to:
	customer Refund Account;
	Interoperable Agency and
	Authority remittance account.
1449	The Contractor shall provide the capability to establish disbursement accounts within the BOS and map those disbursement accounts to BOS Modules, including but not limited to Financial Account, disbursement reports and bank reconciliation.
1450	The Contractor shall provide the capability to map disbursements by disbursement type to default disbursement accounts.
1451	Payments shall be applied to account balances on a Configurable basis (default order is automatically assigned by the BOS).
1452	The default Posting order can be manually overridden by Authorized Users.

1.14.3.2. **Disbursements**

Disbursements will be made to customers for overpayments and refunds and also made to the Authority, CTOC Agencies, Interoperable Agencies, and Third-Party Service Providers.

The BOS shall support the processing of disbursements, including but not limited to: • customer refunds;
customer refunds:
Customer retunds,
settlement with the Authority;
settlement with CTOC Agencies;
settlement with Interoperable Agencies, and
settlement with Third-Party Service Providers.
The Contractor shall provide the Configurable capability to automatically identify accounts that are eligible for refund processing and present those refunds for review and approval based on various activities on the account (require review before a refund would be processed), including but not limited to:
closing of an account;
 unapplied payments (for example, a payment that has been received and deposited but cannot be Posted to an account and needs to be refunded);
 overpayment on an account and there are no outstanding Violations or unbilled tolls that need to be paid and

	 overpayment of a Violation and there are no other outstanding Violations or toll transactions/trips that need to be paid.
1455	The Contractor shall provide the capability for an optimized and streamlined (minimized number of steps) process for refunds based on the original transaction and confirm such refunds are reflected on the user account history. For example, upon receipt of a customer request to close an account and after the appropriate waiting period has elapsed, an Authorized User shall have the capability to Approve a refund without the need to research and indicate refund method and, in the case of Credit Card refunds, select or input the card number; the BOS shall have the capability to automatically allocate Approved refunds to the correct refund type and card number.
1456	The Contractor shall provide the capability to issue refunds to the payment method that was used to create the credit balance.
1457	The Contractor shall provide the capability to issue electronic refunds (for example, by Credit Card) to the Credit Card used to make the payment, including but not limited to those Credit Card that are not stored on the user account. For example, the BOS can utilize a payment reference number to trace back to a payment method without the need for the BOS to retain the card information.
1458	The Contractor shall provide the capability to issue refunds by check if the account does not provide for an electronic method or if the electronic method is invalid (for example, if the Credit Card is expired).
1459	If required in order to comply with the merchant agreement or any other agreements or regulations, the Contractor shall provide the capability to issue a single refund using more than one payment method. For example, a single refund amount may be issued to multiple Credit Cards and/or by check.
1460	The Contractor shall provide the capability to issue refunds by check for overpayments on, including but not limited to:
	prepaid tolls;
	Violations;
	fees and
	penalties.
1461	The Contractor shall provide the capability to prevent refunds of greater than the amount of the original transaction amount or the prepaid balance, adjusted for overpayments and any prior refunds.
1462	The Contractor shall provide the capability for automated processing of Approved refunds after a Configurable hold period.
1463	The Contractor shall provide the capability to send an Operational Alert Notification to the PMMS when eligible refunds are due.
1464	The Contractor shall provide the capability to expedite a refund if the customer requests to have a refund issued before the Configurable hold period has elapsed, for example when a customer is due a refund because a check was cashed for the wrong amount due to CSR error.

1465	The Contractor shall provide the capability to require authorized approvals for refunds. For example, refunds in excess of a Configurable amount or refunds for goodwill credits for which there is no associated payment are routed for approval through Cases.
1466	The Contractor shall provide the capability to track and associate all refunds to the original payment on the account.
1467	The Contractor shall provide the capability to display detailed Credit Card settlement activity for refunds by payment method.
1468	The Contractor shall provide the capability to prevent the automatic issuance of refunds if the account has an outstanding balance due; such refunds require the approval of an Authorized User through Cases.
1469	The Contractor shall provide the capability to send a refund Notification electronically and/or by mail to all customers who are issued a refund.

1.14.3.3. Escheatment (unclaimed property)

The BOS shall allow for comments to be entered in accounts that are eligible for Escheatment and a Flag shall be available to indicate when an account was subjected to Escheatment procedures.

1470	The Contractor shall provide the capability to enter comments and update statuses and Flags to indicate that an account was subjected to Escheatment procedures.
	The Contractor shall provide the capability to identify any unclaimed funds as candidates for the Escheatment process.
1472	The Contractor shall provide the capability to identify any unclaimed funds as subjected to the Escheatment process.

1.14.3.4. Write-Off of Unpaid Balances

The BOS shall have the capability of processing Write-Offs at the Authority's discretion. The BOS must accommodate both automatic and manual Write-Off of unpaid balances and Toll Transactions. These Write-Offs will include bulk Write-Offs of a group of transactions which meet Configurable criteria and individual transactions/debts. This process shall be conducted in an efficient and streamlined manner. The BOS shall provide reporting detailing balances subject to Write-Off and the details of the transactions/debts written-off.

1473	The Contractor shall provide the functionality to accept payment on transactions/trips that have been written-off, for example reverse the Write-Off in the amount of the payment and apply the payment.
1474	The Contractor shall provide for Write-Off codes which shall provide the selection of a Write-Off reason for each transaction.
1475	The Contractor shall provide for the Write-Off of individual transactions by Authorized Users.
1476	The Contractor shall provide for the bulk Write-Off of transactions by Authorized Users.

1477	The Contractor shall provide the capability for the BOS to automatically Write-Off transactions/debts based on Business Rules, for example, Write-Off balances after X Configurable days if no action.
1478	The Contractor shall provide for the cessation of status or workflow stage and collection effort following Write-Off.
1479	The Contractor shall provide the capability to require a reason for each Write-Off, for example, debt reduction negotiation or debt older than "x".
1480	The Contractor shall provide the capability for the BOS or the applicable Authorized User to select the appropriate Write-Off reason.
1481	The Contractor shall provide the capability to search for types of debt and Write-Off the selected group of debts. Types of debts include but at not limited to:
	• fees;
	penalties and
	• tolls.

1.14.4. Reconciliation and Settlement - General Requirements

Balancing and reconciliations are integral to the BOS operation. Therefore, these processes shall be integrated within the BOS.

The Contractor shall provide a BOS capable of handling reconciliations within the BOS, as opposed to on spreadsheets or through other mechanisms outside the BOS. For example, the BOS shall be capable of accepting data from the bank(s) and Merchant Service Provider(s) to reconcile Credit Card deposits within the BOS. Exceptions shall be tracked as Cases within the BOS and reconciliation reports are generated by the BOS. The BOS shall not require that data be exported from the BOS, from the bank(s) and from the Merchant Service Provider(s) to be combined, compared and reconciled in a spreadsheet.

1482	The BOS shall track and reconcile 100 percent of the transactions it receives from the ETTM System.
1483	All BOS transaction reconciliation shall be based on Revenue Day which, for transactions/trips, is the Revenue Date transmitted in the transactions/trips; for operations and payments activities, it is the day the event occurred.
1484	The Contractor shall provide the capability to close a Revenue Day upon the final reconciliation of the transactions and revenue. The completion of the Revenue Day closure process finalizes the counts and revenue for the Revenue Day. Upon the closure of the Revenue Day the data on Revenue Day reports shall not change.
1485	The Contractor shall provide the capability to close a Revenue Month similar to the Revenue Day closure process.
1486	The last Revenue Day of a Revenue Month shall remain open for adjustments until both the Revenue Day and the Revenue Month have been closed.
1487	The Contractor shall provide the capability to close a Revenue Year similar to the Revenue Month closure process.

1488	The last Revenue Day of a Revenue Year shall remain open for adjustments until the Revenue Day, Revenue Month and Revenue Year have been closed.
1489	The Contractor shall provide the capability to investigate and correct all exceptions and discrepancies identified during the process. For example, if the total of the bank deposits does not equal the total of bank deposits per the BOS, then detailed reports relating to the deposits in question must be available. Corrections shall be made and Approved by Authorized Users.
1490	All reports shall indicate the status of the reconciliation. For example, when a user runs a report containing data for a Revenue Day which has not yet been closed, the report shall contain some indication the data in the report is preliminary or subject to change.
1491	The Contractor shall provide the capability to record fees in the BOS, for example merchant fees and bank fees.

1.14.4.1. Banking Reconciliation and Settlement

1492	The Contractor shall provide the capability to reconcile all financial activity, including but not limited to:
	• deposits;
	• credits;
	disbursements;
	returned items and
	• chargebacks.
1493	The Contractor shall provide for the daily Balancing of activity at the transaction level by Payment Type.
1494	The Contractor shall provide for the identification of exceptions by transaction.
1495	The Contractor shall provide the capability to allow Authorized Users to make adjustments to exceptions and reprocess the automated reconciliation.
1496	The Contractor shall provide the capability to open a Case for reconciliation exceptions.

1.14.4.2. Bank Deposit Reconciliation and Settlement

The BOS deposits funds collected by mail and in the WICs. These funds are deposited by the BOS directly into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-3 Customer Transaction Settlement. These deposits must be balanced and reconciled on a daily basis and monthly basis.

1497	The Contractor shall provide an automated Interface to reconcile bank deposits.	
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1.14.4.3. Reconciliation and Settlement with Merchant Service Provider

The BOS initiates Credit Card transactions with one or more Merchant Service Providers. Funds collected through the merchant accounts by the Merchant Service Provider are deposited directly

into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-3 Customer Transaction Settlement.

1498	The Contractor shall provide an automated Interface to reconcile transactions initiated with
	the Merchant Service Provider(s).

1.14.4.4. Reconciliation and Settlement with Lockbox (optional)

The BOS utilizes a Lockbox Service Provider to process customer check payments. Payments sent to the Lockbox will be processed by the Lockbox Service Provider and deposited directly into BOS Bank Accounts in accordance with the flow of funds depicted in Figure 1-3 Customer Transaction Settlement.

1499	The Contractor shall provide an automated Interface to reconcile Lockbox Service Provider
	deposits.

1.14.4.5. Reconciliation and Settlement with the Authority

The daily reconciliations between the ETTM System and the BOS shall address transactions and payments.

The transactional reconciliations shall be handled by the BOS. The ETTM System will transmit a transaction/trip to the BOS, which the BOS shall acknowledge and thereafter begin the Posting/billing process.

The reconciliations related to payments shall address payments being made by the BOS to the Authority. These payments are a result of payments being collected from customers, processed and remitted to the Authority in settlement of balances due.

1500	The Contractor shall provide the capability to track payables and receivables between the BOS and the Authority based on customer payments, payment reversals and Posting of payments to transactions/trips.
1501	The Contractor shall provide the capability to track payables to and receivables from the Authority based on BOS remittances to these entities. For example, when a settlement payment is made to the Authority, the Authority's payable Financial Account is debited and the Financial Account corresponding to the Bank Account from which the payment is made is credited.
1502	The Contractor shall provide electronic Notification of daily reconciliation and monthly settlement to the Authority. For example, Authorized Users at the Authority receive an Alert (which could be an email including the completed reconciliation as an attachment or link) when the daily reconciliation is completed and Revenue Day closed.
1503	The Contractor shall provide for reconciliation of daily activity and transactions with the Toll Facilities.

1.14.4.6. Reconciliation and Settlement with CTOC Agencies and Interoperable Agencies

The BOS shall remit funds collected from customers to the CTOC Agencies and Interoperable Agencies in accordance with the following Requirements:

1504	The Contractor shall provide the capability to track payables and receivables between the BOS and the CTOC Agencies and Interoperable Agencies based on customer payments, payment reversals and Posting of payments to transactions/trips.
1505	The Contractor shall provide the capability for the credit memo process to handle disputes and credits initiated by customers of CTOC Agencies.
1506	The Contractor shall provide the capability to track payables to and receivables from the CTOC Agencies and Interoperable Agencies based on BOS remittances to the CTOC Agencies and Interoperable Agencies. For example, when a settlement payment is made to an Interoperable Agency, the Interoperable Agency payable Financial Account is debited and the Financial Account corresponding to the Bank Account from which the payment is made is credited.
1507	The Contractor shall provide electronic Notification of daily reconciliation and settlement of CTOC Agencies and Interoperable Agencies to the Authority. For example, Authorized Users at the Authority receive an Alert (which could be an email including the completed reconciliation as an attachment or link) when the daily reconciliation is completed and Revenue Day closed.
1508	The Contractor shall provide for reconciliation of daily activity and transactions/trips with the CTOC Agencies and Interoperable Agencies in accordance with the applicable Interoperability agreement(s).
1509	The Contractor shall provide capability to generate periodic invoice for CTOC and Interoperable Agency toll charges. The invoice shall be based on reconciled files for each month even if the reconciliation files were received in the following month. Any manual adjustments during the invoice period shall be included in the invoice with the necessary Credit/Debit Memo as identified in the CTOC User Fee Agreement. Payments from Interoperable/CTOC Agencies shall be Posted against the invoice.
1510	The Contractor shall provide capability to enter invoices from CTOC Agencies and Interoperable Agencies to match that with the files in the BOS including any Credit/Debits that were authorized by the Interoperable/CTOC Agency. Payments to the CTOC Agency or Interoperable Agency shall be made after the reconciliation of the invoice with the BOS.

1.14.4.7. Reconciliation and Settlement with Third-Party Service Providers

1511	The Contractor shall provide for reconciliation of daily activity and transactions with Third-
	Party Service Providers.

1.15. Searches

Customers routinely contact the CSC by phone, through the IVR and through the Self-Service Website without knowing their account number, PIN or vehicle license plate numbers. The BOS is expected to provide quick, yet secure access to an account when a customer can positively identify him/herself as the account holder.

Search General 1.15.1.

1512	The Contractor shall provide comprehensive on-screen, drill-down capabilities from summary levels down through the most detailed transaction level, including images if available.
1513	The Contractor shall provide the capability to initiate a search from any screen in the BOS and return to the original location after completing the search.
1514	The Contractor shall provide the capability to select a record in the results grid and view the details and then return to the previous results grid to view additional items without having to re-enter the search criteria or re-run the search.
1515	The Contractor shall provide the capability to select record(s) to use in actions, for example obtaining detailed record information from the search results grid.
1516	The Contractor shall provide the capability to manipulate the field in grid results for all searches, including but not limited to:
	drag and drop fields and columns to shift the order they appear;
	sort by any fields shown on the grid;
	sort alphanumerically by any fields shown on the grid;
	 sort by multiple fields (for example, sort by last name and then first name and then address so that all results with the last name "Smith" shall be sorted by first name and all the results with the name "John Smith" shall be sorted by address);
	add a field to the grid and
	remove a field from the grid.
1517	The Contractor shall provide advanced search capabilities where fields can be picked from a drop-down list and added to the effective criteria to be applied toward the search or report. Drop-down lists shall dynamically narrow down the available selection list as the Authorized User is typing.
1518	The Contractor shall provide the capability to use single and multiple character "wildcards" along with other commonly used search methods in all applicable fields of the search screens. A wildcard is a character used as part of the search criteria to represent one or more unspecified characters. The BOS shall not require the use of wildcards in lieu of leaving the field blank.
1519	Searches shall have an optimized data fetching algorithm so BOS performance is not impacted by large result sets.
1520	The Contractor shall provide the capability to specify a date range for any date in the search.
1521	The Contractor shall provide the capability to specify a number range for any number in the search, for example, account numbers 1055 – 2000.
1522	The Contractor shall provide the capability to search by any field, combination of fields and field ranges.
1523	The Contractor shall provide comprehensive multi-field search criteria on all reports and screen searches. Search criteria shall include all fields and related attributes found in the search results grid.

1524	and vie Notices limited with ot	ntractor shall provide the capability to search, by full or partial value using wildcards awall stored information regarding transactions, images, statements, Violation, account activity and Notifications for user selected criteria, including but not to the following fields. Some search criteria may be available only in conjunction ther search criteria (for example, paid transactions enabled only if an account r is specified):
	•	transaction ID;
	•	transaction type;
	•	location of transaction (Toll Facility, plaza, zone/lane);
	•	transaction number;
	•	transaction Date;
	•	transaction Date range;
	•	transaction Posting Date;
	•	transponder type;
	•	transponder number;
	•	license plate number;
	•	license Plate Type;
	•	license plate Jurisdiction;
	•	account number;
	•	customer name (last, first, middle, suffix);
	•	customer address (street, city, state, ZIP) and type of address;
	•	Authorized User ID;
	•	statement, Violation Notice or invoice number;
	•	account Flags;
	•	address type;
	•	bad address;
	•	Violation number;
	•	transaction disposition status (for example, paid);
	•	payment type;
	•	payment receipt number;
	•	payment method;
	•	check, money order or cashier's check number;
	•	Payment Token and Credit Card expiration date;
	•	transaction amount and

• comments.

1.15.2. Transaction/Trip Search

1.13.2	. Italisaction/ Trip scarcii
1525	The Contractor shall provide the capability to search for and deliver all transactions/trips which meet the search criteria regardless of in the status of the transaction/trip or the status of the account to which the transaction/trip is assigned.
1526	The Contractor shall provide the capability to search for transactions/trips which meet the search criteria with the result delivering multiple transactions, if applicable.
	• transaction/trip ID;
	transaction/trip type;
	location of transaction/trip (Toll Facility, Toll Zone/lane);
	transaction/trip number;
	• transaction/trip Date;
	transaction/trip Date range;
	• transaction/trip Posting Date;
	transaction/trip reason code;
	• transponder type;
	transponder number;
	license plate number;
	• license Plate Type;
	license plate Jurisdiction;
	account number;
	Authorized User ID;
	• statement, Violation Notice or invoice number;
	Violation number;
	• transaction disposition status (for example, paid, unknown at DMV or written-off);
	Payment Type;
	payment receipt number;
	payment method and
	transaction/trip amount.

Account Search 1.15.3.

The Contractor shall provide the capability to search for accounts which meet the search criteria with the result delivering multiple accounts.

1528 The Contractor shall provide the capability to search by key fields and identify potential duplicate accounts. 1529 The Contractor shall provide the capability for Authorized Users to search and view all information related to a specific account. This shall include the complete detailed account history since account inception and capability of filtering and sorting by type of information, including but not limited to: • toll transaction/trip; Financial Transaction: Notifications (includes letters and Violation Notices); Registration Holds placed and released; Collections Placements; **Evidence Packages**; Cases opened and closed; all payment related events, including replenishment failures; account statuses changes; complete address history; complete email address history; complete vehicle history (what plates were active on the account and when); complete change tracking (what data was changed, when and by whom); • last account access by the customer and via channel; date and time of last toll transaction; date and time of last Financial Transaction: transponder activities and statuses and account Maintenance activities. 1530 The Contractor shall provide the capability to display the account running balance in Posting Date chronological order.

1.15.4. Case Search

1531	The Contractor shall provide the capability to search and view all stored information regarding Cases, including but not limited to:
	summary information;
	Toll Facility, if applicable;
	Case number (uniquely identifies the Case record);
	priority (out of a predefined range);

source of Case; status: number of days since creation; number of days since last Authorized User access/action; due date and time: total time spent working on the Case; total time spent by a specific Authorized User or specific department; related accounts and/or records; description/free-form notes on the account; date of action; • time of action; Authorized User who took action: time required for action and action description (free-form data or notes section). 1532 The Contractor shall provide the capability to search and view Case management, including but not limited to: total number of open Cases; total number of open Cases, per department; total number of open Cases, per Authorized User; total number of open Cases by type; total number of overdue Cases: total number of processed Cases; total number of Cases processed per unit of time; total number of Cases processed per department; total number of Cases processed per Authorized User; response time statistics - overall; response time statistics, per department and response time statistics, per Authorized User.

1.15.5. Comment Search

The Contractor shall provide the capability to identify and retrieve comment records into a search results grid, including but not limited to:

• individually by category;

- summarized by category;
- individually by time period and
- summarized by time period.

1.15.6. Transponder Search

1534	
	display all accounts the transponder has ever been associated with including account
	number, account type, the date and time the transponder was added to and removed from
	the account and the current status of the transponder on each account. For example, this
	search might yield two accounts with the transponder identified as being Active on one
	account and lost on the other.
1 5 2 5	

- The Contractor shall provide the capability when searching by transponder number to display all Notifications issued related to that particular transponder. For example, this search might yield an "Excessive I-Toll" Notification and a "transponder recall Notification" for a particular transponder.
- The Contractor shall provide the capability when searching by transponder number to display all statuses the transponder has been in along with the date and time the transponder entered that status.
- The Contractor shall provide the capability when searching by transponder number to display all inventory locations which the transponder has been in along with the date and time the transponder was placed in each location.

1.15.7. License Plate Search

- The Contractor shall provide the capability when searching by license plate and Jurisdiction to display all accounts the license plate has ever been associated with and all Notifications issued related to that license plate. For example, this search might yield two accounts and five Violation Notices for a particular license plate.
- The Contractor shall provide the capability when searching by license plate and Jurisdiction combination to display all transactions that license plate and Jurisdiction combination has ever been associated with regardless of the transaction status. For example, this search might yield two transactions in Paid status, one in Collections, three Posted to an account as I-Tolls and one awaiting inclusion on a Violation Notice for a particular license plate and Jurisdiction combination.

1.15.8. Notification Search

- The Contractor shall provide the capability to search by and view all stored information regarding Notifications, including but not limited to:
 - first name;
 - last name:
 - mailing address;

Notification Type, for example, statement, Credit Card expiration, Violation Notice or account establishment Notification: distribution channel; creation date: quality review date; print date; mail date: date that action on the Notification is due: date(s) of any change in Notification piece status; name of the Authorized User(s) who performed the quality review and Approved the Notification for mailing; return mail (if applicable); account number: transponder number; license plate number and Jurisdiction; dollar range associated with the Notification and dollar amount associated with the Notification. 1541 The Contractor shall provide the capability for Authorized Users to scan the barcode, scan line or Ouick Response Code on BOS-issued returned Notifications and automatically be taken to the appropriate processing screen, including but not limited to: the account that the Notification belongs to; the appropriate Violation Notice processing screen and the Case the Notification belongs to. 1542 The Contractor shall provide the capability for Authorized Users to scan and process BOSissued returned Notifications in bulk where possible (for example, provide the capability to scan multiple pieces of return mail where no forwarding address was provided into the BOS for processing without the need to access each account one-by-one). 1543 The Contractor shall provide the capability to allow Authorized Users to select and print Notification pieces directly from the Notification search screen. 1544 The Contractor shall provide the capability to allow Authorized Users to select and print Notification pieces directly from the account. 1545 The Contractor shall provide the capability to allow Authorized Users to email a PDF version of the Notification piece directly from the account. 1546 The Contractor shall provide the capability to allow Authorized Users to download a PDF version of the Notification piece directly from the Notification search screen.

1547

The Contractor shall provide the capability to allow Authorized Users to download a PDF version of the Notification piece directly from the account.

1.16. Reporting Requirements

Because reporting is integral to the BOS, reporting functionality must be streamlined, quick, intuitive and user-friendly.

The BOS is expected to deliver accurate reports in a usable format. The format of reports is different across various user groups that use the reports for different purposes. For example, the finance departments may desire some reports in an Excel format so the data can be manipulated and analyzed. Other reports may be more desirable in a PDF format to better guarantee the integrity of the report data for audit purposes. The BOS is expected to deliver all reports in a variety of selectable formats.

It also is expected that reports are flexible enough to allow users to make changes to reports "on the fly". For example, a report may include all the data elements required by a user for analyzing past due receivables with the exception of a single data field. The Authorized User must have the ability to add that data field to the report without the need for custom report generation or programming by the Contractor.

Some reports are best displayed as of a point in time (for example, receivable balances) while other reports are best displayed for activity over a range of time (for example, cash collected for a specific period of time). Users often have a need to generate reports that include historical balances as of the end of a particular Revenue Day. It is expected that the BOS track, calculate and maintain such Revenue Day-end balances such that retrieval of historical information is easily accomplished. Users also often have the need to generate reports that include information regarding historical transaction activity over a range of time both in summary and in detail. It is expected that the BOS provide the functionality to quickly and accurately deliver such reports to the user in a usable format.

Standardized reporting shall be achieved via canned and ad-hoc reporting interfaces using both the production database for real-time reporting and reports server/database for more complex, non-real-time and/or data intensive reports.

Reporting is a critical element of any business organization and is required by the Authority to:

- provide for transaction and revenue reconciliation and investigate discrepancies;
- monitor BOS and operational performance;
- monitor human performance and business process efficiency;
- ensure compliance to Performance Measures;
- reconcile toll transactions/trips to individual Toll Facilities;
- reconcile third-party financial and transactional interactions;
- assess the impact of policies and Business Rules;
- identify ways to improve the quality of service provided to customers;
- comply with reciprocity reporting Requirements and

• evaluate the success of the toll collections.

Reports are broken into four broad categories:

- Informational Reports provide information about transactions moving through the revenue cycle.
- Financial Management Reports provide information which enables the Authority to record in its general ledger system the financial activity related to the CSC. These reports also enable the Authority to perform analyses on transactions submitted to the BOS for processing, including but not limited to analyzing billing, collection trends and Account Plan utilization.
- Operations Reports provide the data necessary for the Contractor and the Authority
 evaluate the Contractor's performance against the Performance Measures and provide the
 reporting necessary to prepare and support the Contractor's monthly bill to the Authority.
 These operational reports also provide the Authority with the data necessary to monitor
 operational activities and the operations staff.
- Interface Reconciliation Reports provide the reports necessary to reconcile all Interfaces and also to demonstrate successful completion of the reconciliations by the Contractor.

1.16.1. General Reporting Requirements

1548	The Contractor shall provide a BOS data fetching algorithm that is optimized for performance including bringing data into BOS screens and reports.		
1549	The Contractor shall provide BOS reports optimized for performance. Data shall be organized and summarized in a manner to allow for report generation within no more than five seconds of a report generation request for daily summary reports and no more than twenty seconds of a report generation request for monthly summary and annual summary reports. Reports batched or pre-generated shall be presented to the user within two seconds.		
1550	After the deployment and implementation of the BOS, if there is a need to create additional reports and modify implemented reports, the Contractor shall support such additions and/or modifications.		
1551	The Contractor shall provide ad-hoc reporting tool capabilities to Authorized Users to allow the creation and execution of custom reports from the reports server/database, including but not limited to:		
	drag-and-drop field functionality;		
	drill down functionality;		
	• filtering;		
	parameter prompting;		
	formula support;		
	• grouping;		
	sorting and		
	stored procedure and function support.		

1552	The ad-hoc reporting tool shall be COTS Software and be the latest version at the time of Acceptance Testing and field-proven to operate in a transaction intensive environment.		
1553	The Contractor shall provide reporting output in various formats (both compressed and uncompressed), including but not limited to:		
	Portable Document Format (PDF);		
	plain text format (TXT);		
	rich text format (RTF);		
	Microsoft Excel 2016 (or higher if Approved by the Authority);		
	delimiter-separated values;		
	HTML and		
	extensible markup language (XML).		
1554	The Contractor shall provide the capability for Authorized Users to retrieve full table exports from the reports server/database.		
1555	The Contractor shall provide the capability for Authorized Users to schedule the automatic execution and delivery of reports using various delivery methods, including but not be limited to:		
	email addresses;		
	direct to printer;		
	uniform naming convention (UNC) paths;		
	shared drives and		
	SFTP sites.		
1556	The Contractor shall provide the capability for Authorized Users to schedule the automatic execution and delivery of reports for a variety of time periods, including but not limited to:		
	as of a specific time each day;		
	as of a specific day and time each week;		
	as of a specific day and time each month;		
	as of a specific date and time each month;		
	• for a Revenue Day;		
	• for a Business Day;		
	for a Calendar Day and		
	• for a specific period of time spanning more than one day (for example 2:00:00am to 1:59:59am the following day).		
1557	The Contractor shall provide a dashboard application, including but not limited to:		
	fully Configurable, role-driven, browser-based solution that allows users to customize their own dashboards;		

 real-time display of data and processes and drill-down capabilities from high level graphical display supporting data. The Contractor shall provide a comprehensive data dictionary that BOS databases in the production environment and the reports sendictionary shall include but not be limited to: what data is stored; name, description and characteristics of each data element types of relationships between data elements and access rights. 	defines the structure of ever/database. The data
supporting data. The Contractor shall provide a comprehensive data dictionary that BOS databases in the production environment and the reports ser dictionary shall include but not be limited to: what data is stored; name, description and characteristics of each data element types of relationships between data elements and access rights.	defines the structure of ever/database. The data
BOS databases in the production environment and the reports sendictionary shall include but not be limited to: • what data is stored; • name, description and characteristics of each data element • types of relationships between data elements and • access rights.	rver/database. The data
 name, description and characteristics of each data elemen types of relationships between data elements and access rights. 	t;
 types of relationships between data elements and access rights. 	t;
access rights.	
1559 The Contractor shall provide a consistent user interface for all repo	orts.
The Contractor shall provide for summary and detailed reports fo all user accounts, including but not limited to:	r all account activity on
as of the current moment in time;	
as of an historical moment in time;	
 for a range of Revenue Days (for example from 1/1/2016 t deliver results for the Revenue Days 1/1/2016, 1/2/2016 	
for a range of time (for example from 3:00am 1/1/2016 to	3:00am 1/3/2016).
The Contractor shall provide for reports of balances as of the end of Revenue Day, in summary and in detail, for any or all user accounts	-
The Contractor shall provide for summary and detailed reports fo all Financial Accounts, including but not limited to:	r all account activity on
as of the current moment in time;	
as of an historical moment in time;	
 for a range of Revenue Days (for example from 1/1/2016 t deliver results for the Revenue Days 1/1/2016, 1/2/2016 	
• for a range of time (for example from 3:00am 1/1/2016 to	3:00am 1/3/2016).
The Contractor shall provide for reports of balances as of the end of Revenue Day, in summary and in detail, for any or all Financial Acc	-
1564 The reports shall meet the general objectives, including but not lim	ited to:
data elements shall be consistent through all the reports or	f a similar nature;
 numbers and amounts shall reconcile with other reports activity; 	that report on the same
numbers and amounts shall reconcile with other reports	that report on the same

report generation shall allow for flexible selection and sort criteria that allows Authorized Users to obtain related information through a single report; all report criteria shall be available for selection using Boolean logic strings and all reports shall allow for the input of any identified criteria to be selected by range (for example, date from and to, account number from and to, Transaction Dates from and to, etc.) and by multi-list selection. 1565 Reports shall display header information which shall indicate parameters selected in the report generation (for example, time periods selected, as-of date selected, account number selected and/or license plate number and Jurisdiction selected). 1566 The Contractor shall provide the capability for the automatic generation and delivery of reports based on Configurable conditions, including but not limited to: report selection criteria (for example, date range); date and time for report generation (for example, daily at 7:00 a.m.); report delivery method (for example, by email); report format (for example, PDF) and report generation frequency (for example, weekly). 1567 The Contractor shall provide the capability for reports generated automatically to have BOS -generated unique, intuitive naming and report numbering reflecting the name, number and date of the report. 1568 The Contractor shall provide the capability for the user to manipulate the report data easily to perform comparative analysis and statistical calculations. 1569 The Contractor shall provide the capability to deliver scheduled reports to the Configured destination. 1570 The Contractor shall provide the capability for the user to specify the format of the report. For example, PDF, Excel and comma separated. 1571 The Contractor shall provide the capability to manually select reports for generation in real time. 1572 The Contractor shall provide a Web-based ad-hoc reporting solution that allows Authorized Users to design and generate professional and accurate multi-format reports. Ad-hoc report templates created by Authorized Users shall be made available to all Authorized Users, in addition to the reports menu. 1573 All reports shall display last activity date, transaction Posting status and other relevant data dependencies on the specific report related to that activity that indicate completion of activity and items, including but not limited to: all transactions/trips have been obtained from the ETTM System; all images have been obtained from the ETTM System; the transactions/trips that have been transmitted to Interoperable Agencies and reconciliation files that have been received and acknowledged; all correction files that have been reconciled and acknowledged;

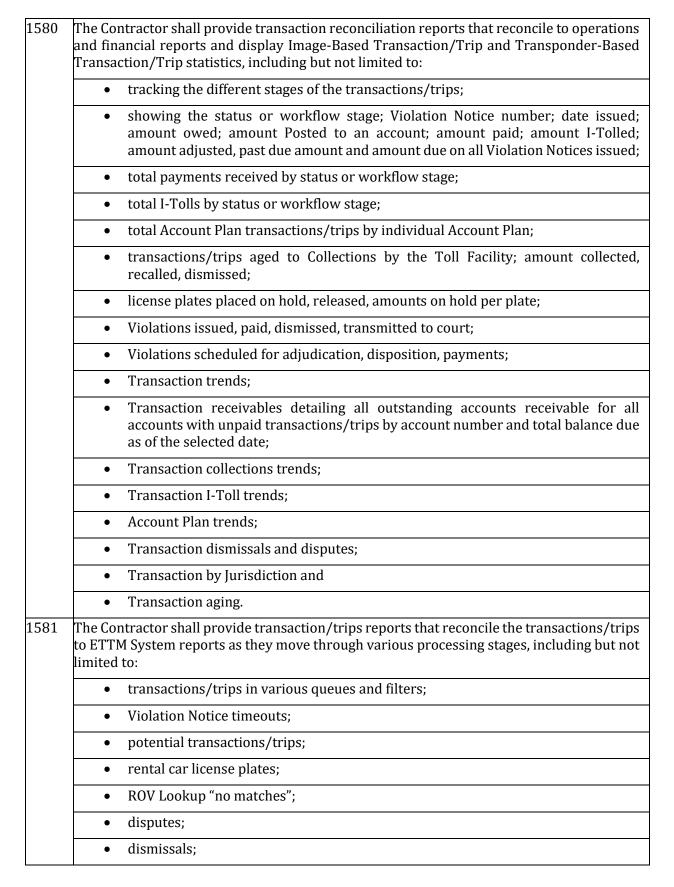
all shifts that have been closed: all third-party reconciliation and payment data that has been imported or has been entered into the BOS and that all activities have been completed and are ready to be reconciled. 1574 The Contractor shall provide drill-down capability on all fields on all high-level reports to the lowest level of details, including the tools to view the available images associated to a transaction or account and account details. The Contractor shall provide drill-down capability on all fields on all high-level reports to 1575 the lowest level of details, including the tools to view the available images associated to a transaction or Violation Notice and details. 1576 The Contractor shall provide the user interface to choose the following selection criteria, including but not limited to: Interoperable Agencies; Toll Facility; plaza; lane: direction of travel: identification type (transponder or license plate); Account Plan type; Payment Type; customer service location; BOS user: customer service staff; BOS processes; third-party interfaces and Third-Party Service Providers. 1577 The Contractor shall provide the user interface enabling the following selection criteria to generate the same report, including but not limited to: • by day; day(s) within a specified range; date range; weekly; monthly; yearly;

	comparative based on selection and
	year-to-date.
1578	The Contractor shall provide for the generation of a single report by various date types, including but not limited to:
	Transaction Date;
	various transmit dates;
	• transfer date;
	Posting Date;
	Violation Notice date;
	due date;
	payment date;
	Hearing date;
	• process date;
	Posted date;
	business date;
	review date;
	statement date;
	mail date;
	print date;
	acknowledgement date and
	reconciled date.
1579	The Contractor shall provide the capability to:
	 include sub-totals, totals and grand totals as selected by the user;
	sort the data elements in the report within each grouping of data and
	 present data in graphs and chart types based on presentation form selected by the user from a variety of graphic styles.

1.16.2. Informational Reports

1.16.2.1. Transaction Processing Reports

The Contractor is expected to provide Transaction Processing Reports which reflect the status or workflow stage for transactions/trips submitted by the Toll Facilities to the BOS over a period of time. For example, a report shall exist that details the number of transactions/trips submitted by a Toll Facility in January and shall detail the status or workflow stage of those transactions/trips as of June 30, the current date.



	• payments;
	transaction status or workflow stages;
	I-Tolls and
	other transaction statuses.
1582	The Contractor shall provide invoicing summary reports by transaction status or workflow stage that track Violation Notice generation to final termination of Violation Notices, including but not limited to counts and amounts for:
	Violation Notices generated;
	payments;
	dismissals;
	status or workflow stage and
	• re-issued.
1583	The Contractor shall provide transaction activity reports that track activity on transactions/trips for each status or workflow stage, including but not limited to:
	number of invoices and Violation Notices issued;
	tolls, fees and penalties assessed;
	amounts dismissed;
	amounts voided;
	amount collected;
	amount collected in I-Tolls and
	unbilled tolls collected, if prepayment is allowed.
1584	The Contractor shall provide reports that list the account number and overpayment amount on all transaction accounts that are overpaid as of a date.
1585	The Contractor shall design and implement reports that duplicate the format and content of the current reports in Attachment C: Sample Reports.
1586	The Contractor shall provide monthly and quarterly status reports that mimic the format provided in Attachment C: Sample Reports and includes additional information requested by the Authority during the Implementation Phase.

1.16.2.2. Customer and Account Management Reports

Account management reports detail the overall status of accounts. The Contractor shall provide reports that detail account openings and closures, transitions from one account type to another (for example, an Unregistered account becoming a Registered account). Reports also shall be provided that give the Authority information about accounts that fall below the Insufficient Balance Threshold. These reports shall provide an indication of the overall success of the current Business Rules and may provide some insight into where potential changes could be made to enhance the customer experience or operational performance of the BOS.

1587	The Contractor shall provide a comprehensive report that displays current account statistics for transaction totals and charges by the following criteria, including but not limited to:
	transaction totals and charges by Toll Facility;
	transaction totals and charges by account types;
	transaction totals and charges by Account Plan;
	transaction totals and charges by status or workflow stage;
	transaction totals and charges by payment option;
	transaction totals and charges by account identification method and
	transaction totals and charges by account statuses.
1588	The Contractor shall provide a comprehensive report that displays all account creation and account closing information for a selected period by contact method (for example, detailing accounts open and closed via the Self-Service Website, by phone, by walk-in and by mail).
1589	The Contractor shall provide reports that detail all prepaid tolls and outstanding balances due for every account. This report should allow Authorized Users to specify only certain accounts based on criteria which includes, but is not limited to:
	account status;
	account type;
	account number and
	dollar amount.
1590	The Contractor shall provide a comprehensive report that displays all accounts and/or transponders that have Account Plans.
1591	The Contractor shall provide reports that display all balances, activity and statistics on accounts by account type, including but not limited to:
	accounts created;
	transponders fulfilled;
	accounts closed;
	Account Plan utilization;
	invoices and Violation Notices on account;
	past due by status or workflow stage;
	Violation Notices on hold;
	Write-Offs;
	accounts with debt in Collections;
	accounts with Registration Holds placed;
	accounts with Registration froids placed,

- payments and refunds processed and requested and
- toll transaction disputes processed and in progress.
- The Contractor shall provide a single report that provides the complete detailed account history for a single account. This report shall include a chronological listing of all activities for each activity type for a specified range of time between account inception and the current date, including but not limited to:
 - toll transactions/trips transaction time (entry and exit), location, Posting date/time, Tolling Location, expected toll, Posted toll and discounts (for example, Account Plans);
 - Financial Transactions payment date, payment item, Payment Type, payment method, payment number (for example, check number), payment detail (for example, breakdown of tolls and fees paid) receipt number, amount due, paid amount;
 - reversal activity on Posted transactions (toll, non-toll, penalties, fees, financial) reversal date, original transaction, reason;
 - Notifications date, type, communications channel, Notification number, if applicable (invoice number, Violation Notice number), amount due in each status or workflow stage, due date;
 - account comments;
 - account statuses date of change, from status, to status, user ID and trigger;
 - Account Plan(s) and activity;
 - Cases date Case was established, Case status, Case disposition;
 - transponder activities and statuses date of change, from status, to status, user ID, trigger;
 - dispute activity date, transaction; invoice/Violation Notice/statement number, amount owed, reason, results; dismissal code, dismissed amount;
 - Violation activity date, amount, payment, dismissal, aged to court or Collections;
 - court activity (obtained from the Collection Agency) date, transaction, amount owed, disposition;
 - collection activity date, Toll Facilities, Notification, amount placed, amount paid, dated recalled/canceled;
 - Registration Hold and release activity date, license plate number, Notification, amount owed, results of motor vehicle department, date of hold/release and
 - account Maintenance activities.
- The Contractor shall provide reports that list all customers' financial activity on the account, including but not limited to:
 - account number;
 - name and address records;

	all notes and/or Cases related to the account or transactions;
	beginning balance;
	credits and debits by transaction type;
	• refunds;
	• reversals;
	• payments;
	dismissals;
	adjustments and
	ending balance.
1594	The Contractor shall provide reports that list all customers' financial activity on the account and reconcile to the Financial Accounts.
1595	The Contractor shall provide reports listing accounts that have no transaction or payment activity since a specified date (Configurable) or for a period of time (Configurable), including their history and current status.
1596	The Contractor shall provide reports that identify the processed transactions, reconcile to operations reports and summarize the operations activity. Such reports shall summarize the operational activities performed in different customer service departments and areas, including but not limited to:
	totals for number of accounts opened and closed by type;
	number of transponders assigned by type of transponder;
	account replenishment;
	invoices generated;
	Violation Notices generated;
	Violations filed with the court;
	Account Plan-related transactions;
	Cases opened;
	Cases closed;
	Cases escalated;
	• license plates and transponder transactions/trips in the Processing Exception List;
	Notices on hold;
	disputes processing status;
	Evidence Packages created;
	placed in collection;
	eligible for Registration Hold;

	successful Registration Hold;
	eligible for Registration Hold release;
	successful Registration Hold release;
	account status;
	any adjustments made;
	customer I-Toll Transactions/Trips Posted and
	other CSR activity.
1597	The Contractor shall provide reports that display all customer and non-customer feedback by account type, contact method and users, including but not limited to:
	Cases by category;
	suggestions by category;
	Cases by time period and
	suggestions by time period.
1598	The Contractor shall provide reports that list accounts that require attention, including but not limited to:
	accounts that have Flags on the account indicating an issue (Configurable by Flag);
	replenishment failure;
	Credit Card expiration;
	Excessive I-Tolls;
	disputed Violation Notices;
	debt at Collections;
	Registration Hold;
	overpayment;
	refund requests;
	open Case(s);
	Violation Notices on hold;
	bankruptcy;
	negative balance;
	• inactivity;
	Notifications that require review and
	accounts that require follow up action by CSR or customer.
1599	The Contractor shall provide reports that list the status of transactions/trips (count and revenue) processed by the BOS, identifying the exact position in all open workflow points for unpaid transactions, both home (the Authority) and Interoperable, that Posted to the

	accounts, those that were rejected due to various reasons and those that are in any other terminal statuses. The reports shall reconcile to the financial reports and Interoperable
1600	reports. The Contractor shall provide reports that account for all shift activity with detailed and
	summarized financial information, including but not limited to:
	all payment transactions processed for each payment item;
	all payment transactions processed by payment method;
	all payment transactions processed by Payment Type;
	all payment transactions processed by payment channel;
	all Financial Transactions dismissed;
	all voided Financial Transactions;
	all Financial Transactions reversed;
	all Financial Transactions adjusted;
	all Financial Transactions unapplied and re-applied;
	all Financial Transactions waived and
	all Financial Transactions waived by user.
1601	The Contractor shall provide reports that list all financial activity of all CSRs that reconcile to individual CSR activity reports.
1602	The Contractor shall provide reports that list all financial activity of all CSRs that reconcile to financial reconciliation reports.
1603	The Contractor shall provide reports that summarize the operational activities performed in different customer service departments and areas, including but not limited to:
	• WIC(s);
	Self-Service Website;
	Self-Service Mobile Application (Phase II and optional);
	• IVR;
	• contact center;
	mailroom;
	Case management department;
	Third-Party Service Providers and
	Collection Agency.
1604	The Contractor shall provide reports that summarize the payment processing activities performed in different customer service departments and areas, including but not limited to:
	• the separate WICs;

Self-Service Website;
Self-Service Mobile Application (Phase II and optional);
IVR;
contact center;
automated BOS replenishments;
Lockbox (optional);
electronic deposit;
mailroom;
Case management department;
Third-Party Service Providers;
Collection Agency and

1.16.2.3. Payment Processing Reports

courts.

1605	The Contractor shall provide reports that track the Credit Card, ACH, check, cash and money order payments that are processed, including but not limited to:
	number and dollar value of payments;
	• refunds;
	reversals;
	adjustments;
	• voids;
	payment date;
	activity date;
	• settlements;
	payment item;
	payment source;
	Payment Type, for example check, ACH, money order, cash;
	payment method;
	Credit Card type;
	card details;
	processed amounts;
	Violation Notice number paid;
	account debited and

	account credited.
1606	The Contractor shall provide the capability to produce payment reports by payment source (for example, CSR, Self-Service Website, Self-Service Mobile Application (Phase II and optional), IVR and Collection Agency) and by Payment Type (for example, Credit Card, ACH, check, cash and money order).
1607	The Contractor shall provide reports that balance and reconcile the Credit Card processed by the BOS to the Credit Card Posting status provided by the Merchant Service Provider and allows operations to investigate discrepancies, including but not limited to:
	failed Credit Card transactions;
	account number;
	date and time;
	successful Credit Card transactions that did not Post to an account;
	Credit Cards that were processed by the BOS but not the Credit Card processor;
	duplicate Credit Card processing;
	duplicate Credit Card Posting;
	total amount successfully processed;
	total amount Posted to accounts;
	total amounts identified as processed by the Credit Card processor;
	variances and
	• chargebacks.
1608	The Contractor shall provide reports that balance and reconcile the ACH transactions processed by the BOS to the ACH Posting status provided by the Merchant Service Provider/ACH processor and allows operations to investigate discrepancies, including but not limited to:
	failed ACH transactions;
	account number;
	date and time;
	successful ACH transactions that did not Post to an account;
	ACH transactions that were processed by the BOS but not the ACH processor;
	duplicate ACH processing;
	duplicate ACH Posting;
	total amount successfully processed;
	total amount Posted to accounts;
	total amounts identified as processed by the ACH processor;
	Variances, and

• returns/rejects.
The Contractor shall provide reports that detail returned checks processed during any timeframe, broken down by type of original payment (toll, fee and penalty).

1.16.2.4. **Inventory Management Reports**

Inventory management reports shall assist the Authority and the Contractor in review and management of inventory items.

1610	The Contractor shall provide transponder inventory reports that 1) track the transponder inventory by type of transponder and distributor; 2) ensure there are sufficient transponders in stock; 3) show the status of all transponders at all stages of transponder purchase, Fulfillment and recovery/disposition cycle, including but not limited to:
	transponders issued to customers;
	transponders by status;
	transponders in warranty;
	transponders in the return material authorization process;
	transponders on order but not shipped;
	transponders sold and
	other operational statuses.
1611	The Contractor shall provide transponder status reports that track the issuance of inventory items, including but not limited to:
	sold by item type;
	 by type of distribution method, for example, by mail, in WIC #1 and WIC #2;
	number and frequency of inventory items distributed;
	the inventory status;
	the status of damaged transponders and
	the status of failed transponders.
1612	The Contractor shall provide inventory reports that show beginning balance and end of month balance by inventory location.

1.16.2.5. **ROV Lookup Reports**

This series of reports provides information about the outcomes of the Authority's ROV Lookup requests.

The Contractor shall provide DMV Lookup reports that track the ROV Lookup requests and the responses from the various DMVs/ROV Lookup Service Provider(s).
The Contractor shall provide DMV Lookup reconciliation reports that track the quantity of ROV Lookup requests by different attributes, including but not limited to:

Iurisdiction;
 response (unknown at DMV, ROV provided);
 ROV Lookup Service Provider;
 Address status (forwarded to updated address, no forwarding address, good);
 by date requested;
 by date response was received and
 address database used (temporary license plates, trucking, manual lookup).

The Contractor shall provide ROV Lookup reports that reconcile the number of ROV Lookup requests to the invoices from the ROV Lookup Service Providers.

The Contractor shall provide ROV Lookup reconciliation reports shall reconcile to appropriate financial and operations reports.

1.16.2.6. Notifications Reports

1617 The Contractor shall provide Notification reconciliation reports that track the different stages in the Notification process, including but not limited to: qualification, creation, quality review, printing, and mailing. 1618 The Contractor shall provide Notification reconciliation reports that track the quantity of Notification pieces by different attributes, including but not limited to: - qualified; - created; - quality reviewed; - printed; - distributed by Notification vendor; - Notification distribution channel; - by date qualified; - by date quality review was performed; - by date distributed; - by date distributed; - Jurisdiction in which the license plate is registered; - Jurisdiction which the Notification was mailed to; - by batch (for example, quantity of Notification pieces processed in a certain batch of items); - by Notification item and - by Notification status (for example, bad address or paid).		Notifications Reports
Notification pieces by different attributes, including but not limited to: • qualified; • created; • quality reviewed; • printed; • Notification distribution vendor; • Notification distribution channel; • by date qualified; • by date created; • by date quality review was performed; • by date the Notification was printed; • by date distributed; • Jurisdiction in which the license plate is registered; • Jurisdiction which the Notification was mailed to; • by batch (for example, quantity of Notification pieces processed in a certain batch of items); • by Notification item and	1617	stages in the Notification process, including but not limited to: qualification, creation,
 created; quality reviewed; printed; distributed by Notification vendor; Notification distribution channel; by date qualified; by date created; by date quality review was performed; by date distributed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 	1618	
 quality reviewed; printed; distributed by Notification vendor; Notification distribution channel; by date qualified; by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		• qualified;
 printed; distributed by Notification vendor; Notification distribution channel; by date qualified; by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		• created;
 distributed by Notification vendor; Notification distribution channel; by date qualified; by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		• quality reviewed;
 Notification distribution channel; by date qualified; by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		• printed;
 by date qualified; by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		distributed by Notification vendor;
 by date created; by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		Notification distribution channel;
 by date quality review was performed; by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		by date qualified;
 by date the Notification was printed; by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		by date created;
 by date distributed; Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		by date quality review was performed;
 Jurisdiction in which the license plate is registered; Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		by date the Notification was printed;
 Jurisdiction which the Notification was mailed to; by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		by date distributed;
 by batch (for example, quantity of Notification pieces processed in a certain batch of items); by Notification item and 		Jurisdiction in which the license plate is registered;
of items); • by Notification item and		Jurisdiction which the Notification was mailed to;
by Notification status (for example, bad address or paid).		by Notification item and
		by Notification status (for example, bad address or paid).

1619	The Contractor shall provide Notification reconciliation reports that reconcile the Notification pieces as they move through various stages of the Notification process (for example if a piece of Notification qualified two weeks ago, where is that piece now?).
1620	The Contractor shall provide Notification tracking reports that show trends by Notification type and channel.
1621	The Contractor shall provide Notification reconciliation reports shall reconcile to appropriate financial and operations reports.

1.16.2.7. Collections Reports

The Collection Agencies will transmit payment information to the BOS via the Collections Interface. For example, when the Collection Agency #1 accepts a payment over the phone from a customer with transactions/trips in Collections, the Collection Agency will transmit that payment information which shall be Posted into the BOS.

The BOS shall have the capability to determine the source of the payment (for example, to determine if the payment was accepted from a BOS CSR or from Collection Agency #2) and record that source for tracking and reporting purposes.

1622	Provide reports that track the status of the collections efforts by individual Collection Agency and by Toll Facility, including but not limited to:
	accounts, Notices and transactions/trips in Collections;
	toll, fee and penalty amounts placed in Collections;
	toll, fee and penalty collections to date;
	 source of toll, fee and penalty payment, for example Collection Agency staff, BOS staff, Lockbox Service Provider (optional), Self-Service Website, Self-Service Mobile Application (Phase II and optional), IVR;
	outstanding toll, fee and penalty amounts;
	adjustments and corrections;
	any collection disputes, holds or resolution on the account;
	open Cases associated with Collections;
	amount received by the Collection Agency for each transaction in Collections and
	how long the account has been in Collections.
1623	Provide Collections reports that list all Collections activity and reconcile to financial and Operations Reports including but not limited to by individual Collection Agency and by Toll Facility.
1624	Provide reports that track the Collections cost and show Collections trends and success rates by individual Collection Agency and by Toll Facility for Violation debt.
1625	Provide reports that track the Collections cost and show Collections trends and success rates by individual Collection Agency and by Toll Facility for negative account balance debt.

1.16.2.8. Registration Hold Reports

1626	The Contractor shall provide Registration Hold reports, including but not limited to:
	 current number and dollar value of transactions/trips associated with Registration Hold requests;
	date of hold;
	number of hold requests;
	average number of days delinquent for Registration Hold;
	current number and dollar value of accepted and denied Registration Hold;
	 current number and dollar value of Registration Hold terminated through quality review process;
	current number and dollar value of payment on Registration Hold;
	 current number and dollar value of aging of transactions/trips in Registration Hold queue;
	Registration Hold Notification and
	current number and dollar value of Registration Hold in various Registration Hold statuses.
1627	The Contractor shall provide Registration Hold reports that list accounts and license plates where Registration Hold needs to be initiated, including but not limited to:
	account number;
	license plate number and Jurisdiction;
	the date the license plate became eligible for Registration Hold;
	the status of the Registration Hold;
	the days in Registration Hold status and
	all transaction details demonstrating the validity of the Registration Hold.
1628	The Contractor shall provide the capability to reconcile Registration Holds. For example, reconcile data which compares the BOS' records of current Registration Holds to the DMV's records.

1.16.2.9. Registration Hold Release Reports

1629	The Contractor shall provide Registration Hold release reports that list accounts and license plates where the Registration Hold needs to be released, including but not limited to:
	account number;
	license plate number and Jurisdiction;
	the date the license plate became eligible for registration release;
	the status of the registration release;

- number and dollar value of registration release requests;
- the days in registration release status and
- all transaction details demonstrating the validity of the registration release.

1.16.2.10. Violations Reports

- The Contractor shall provide Violations reports and Toll Facility, broken down by tolls, fees and penalties, including but not limited to:
 - number and dollar value of Violations;
 - average number of days delinquent for Violations;
 - number and dollar value of Violations terminated through quality review process (for example, Violations determined to be ineligible for further escalation after review at any status or workflow stage);
 - number and dollar value of payment on Violations;
 - number and dollar value of aging of transactions/trips in Violations queue;
 - Violation Notices and
 - number and dollar value of Violations in various Violation statuses.
- The Contractor shall provide Violation reports that list accounts and license plate and Jurisdiction where the Violation needs to be initiated, by Toll Facility, including but not limited to:
 - account number;
 - license plate number and Jurisdiction;
 - the date the license plate became eligible for Violation;
 - the status of the Violations;
 - the days in Violation status and
 - all transaction details demonstrating the validity of the Violation.
- The Contractor shall provide Violation reports that show payment trends and success rates for Violations by Toll Facility.
- The Contract shall provide a Violation report that shows the aging of all violations with the transaction count and associated value and the current collection stage.
- The Contractor shall provide a Violation report that shows the escalation stage in which violations are resolved (paid, reduced or dismissed) with the transaction count, amount paid, amount dismissed, amount reduced and amount remaining.

1.16.2.11. Case Management Reports

The Contractor shall provide reports that list Case summary information (or details if selected), including but not limited to:

	number of Cases by type;
	number of Cases by Toll Facility;
	Case established by, such as established by BOS, customer, or CSR;
	Cases opened;
	Cases closed;
	Cases escalated;
	 number of Cases that failed to meet the Authority's Performance Measures;
	average Case handling time by priority;
	longest Case handling time by priority and
	number of affected accounts.
1636	The Contractor shall provide reports that list the detailed Case information, including but not limited to:
	Case ID (i.e., uniquely identifies the Case record);
	Case type;
	account number, if applicable;
	severity level or priority;
	source of Case status;
	created date;
	resolved date;
	number of days since creation;
	number of days since last agent touch;
	due date and time;
	total time spent working on the Case;
	total time spent by a specific user;
	total time spent by a specific department;
	action taken at each hand-off;
	Case history;
	related accounts and
	Case description/free-form notes on the account.
1637	The Contractor shall provide dispute (Case Type = Dispute) reconciliation reports, including but not limited to:
	Transponder-Based Transaction/Trip disputes;
	Image-Based Transaction/Trip (I-Tolls and Violations) disputes;
	<u>l</u>

payment for accepted and partially accepted disputes; dismissed Transponder-Based Transactions/Trips; dismissed Image-Based Transactions/Trips; reassigned Transponder-Based Transactions/Trips and reassigned Image-Based Transactions/Trips. The Contractor shall provide dispute reconciliation reports by Toll Facility that shall 1638 reconcile the Image-Based Transactions/Trips as the Image-Based Transactions/Trips move through various stages of the dispute process, including but not limited to: accepted disputes; accepted, partially accepted and denied disputes; dismissals and reassignments. 1639 The Contractor shall provide dispute reconciliation reports by Toll Facility shall be provided, including but not limited to: dispute reasons; dismissal reasons by type of dispute; status of the toll when disputed; disputes created by user; resolution time; number of open disputes; number of closed disputes; dispute Notifications received and dispute Notifications sent. The Contractor shall provide dispute reconciliation reports by Toll Facility shall include all 1640 Self-Service Website, Self-Service Mobile Application (Phase II and optional) and IVR transactions.

1.16.3. Financial Management Reports

The BOS shall be capable of generating financial journals, trial balances, financial ledgers and transaction reports.

1641	The Contractor shall provide for the selectable separation of reports by Interoperable Agencies, Third-Party Service Providers and/or Toll Facility, including but not limited to:
	• WIC(s);
	Self-Service Website;
	Self-Service Mobile Application (Phase II and optional);

	• IVR;
	• courts;
	contact center;
	• mailroom;
	Lockbox (optional);
	transponder and
	Collection Agency.
1642	The Contractor shall provide financial journal and ledger reports that list all accounts receivables by revenue type, by Toll Facility and in summary, including but not limited to:
	Transponder-Based Transaction/Trip;
	Transponder-Based Transaction/Trip by account type;
	Image-Based Transaction/Trip;
	Notice by transaction status or workflow stage;
	adjustments;
	• reversals;
	refunds and their dispositions and
	• fees.
1643	The Contractor shall provide transaction and revenue reconciliation reports that track a transaction throughout the revenue cycle (from its entry into the BOS until its closure) and help identify the final resolution of each transaction, including but not limited to:
	the expected number and revenue for all transactions/trips;
	Posting status;
	 pending status (including workflow location(s));
	termination reasons;
	collected/actual revenue;
	percentage collected and
	• variances.
1644	The Contractor shall provide an annual report that provides the analysis of Credit Card and ACH fees between TCA and the Authority's for the purpose of netting these fees out the interagency toll revenue payments.
1645	The Contractor shall provide the capability to generate all reports by Toll Facility.
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Trial Balance and Financial Account Reports 1.16.3.1.

The Authority will utilize reports (journal entry file exports) from the BOS to import into the Authority's financial accounting systems for the purpose of recording financial active related to the BOS. While there is no automated interface, the Authority intends to use these journal entry file exports to record financial activities into their respective general ledgers on a daily or weekly basis.

OCTA uses the Finance Enterprise, formally known as ONESolution, financial accounting system, which requires its own file format for import into its general ledger. Furthermore, the Authority has Business Rules and revenue recognition policies which the Contractor shall consider when developing the financial processes in the system; these details shall be identified during the Implementation Phase.

1646	The Contractor shall provide file export report of all BOS Financial Account activity to be used to record revenues in the Authority's financial systems.
1647	The Contractor shall provide the capability for the Authority to receive information in sufficient detail to record revenues at different steps in the revenue cycle. (For example, before a Violation Notice is mailed, a transaction is in the "billable" stage and in a "billable" Financial Account and when that transaction is included on a Violation Notice, it is in the "billed" stage and in a "billed" Financial Account), including but not limited to:
	when transaction/trip is submitted to the BOS;
	when billable (deemed billable but not yet billed);
	when billed;
	when paid (payment received from customer) and
	when payment remitted to the Authority.
1648	The Contractor shall structure the Financial Accounts so revenues of one entity are not comingled with the revenues of another entity. For example, Image-Based Transaction/Trip toll revenue for one entity shall be separated in the Financial Account from Image-Based Transaction/Trip toll revenue of another entity, from Transponder-Based Transaction/Trip toll revenue and from fee revenue. Entities include the Authority and also include but are not limited to individual CTOC Agencies and the Collection Agency.
1649	The Contractor shall structure the Financial Accounts in such a way that all revenues and expenses from one Toll Facility are easily discernible from the revenues and expenses of other Toll Facilities.
1650	The Contractor shall provide trial balance reports that reconcile all Financial Accounts and confirm the credit and debit balance and show general ledger codes grouped and summarized by asset and liability.
1651	The Contractor shall provide Financial Account reports that reconcile to other transaction and financial reports.
1652	The Contractor shall provide reports summarizing like Financial Accounts (for example, all toll revenue Financial Accounts for a particular Toll Facility), including but not limited to the following timeframes:
	• month;
	month-to-date;
	• quarter;

quarter-to-date; year; • year-to-date; • from and to date; from and to month and • from and to year.

1.16.3.2. Revenue Reports

1653	The Contractor shall provide a revenue report that reflects all revenue, including but not limited to:		
	Transponder-Based Transactions/Trips toll revenue;		
	Image-Based Transactions/Trips toll revenue;		
	all fees and		
	• penalties.		
1654	The Contractor shall provide a report that details potential lost revenue by status or workflow stage, as well as reasons for potential loss, such as a report listing those transactions/trips which still possess a receivable balance and have been placed on hold.		

Payment Reports 1.16.3.3.

1655	The Contractor shall provide a payments report that reflects all payments, including but not limited to:		
	Transponder-Based Transactions/Trips toll revenue;		
	Image-Based Transactions/Trips toll revenue;		
	• prepayments;		
	all fees and		
	• penalties.		
1656	Payment reports shall reconcile to reports provided by the various interfaces, including but not limited to:		
	Credit Card processor;		
	Collections;		
	Interoperable Agencies;		
	bank deposits, and		
	Lockbox payments, if utilized.		

The Contractor shall provide an unallocated payments report that lists all payments that
could not be associated with a transaction with sufficient detail for payment research, such
as the ability to back-out and re-apply against outstanding receivable.

1.16.3.4. Registered Account Reports

1658	The Contractor shall provide a report that reflects the prepaid balance in each account as of a point in time.
1659	The Contractor shall provide a report that reflects all replenishments to Registered accounts over a period of time.
1660	The Contractor shall provide a report that reflects all usage of prepaid funds over a period of time.
1661	The Contractor shall provide a report that reflects all adjustments to accounts over a period of time (for example, adjustments would include any transaction that affects an account balance that is not included on a replenishment report or a usage report).
1662	The Contractor shall provide a report that compares the calculated prepaid balance by account to the prepaid balance per the BOS at any point in time (for example, the calculated prepaid balance is the sum of the account balance as of the first day of the month plus replenishments less usage and plus/minus adjustments that occur during the month, compared to the BOS balance as of the end of the month). Variances shall be identified at the account level.

1.16.3.5. Receivable Reports

1663	The Contractor shall provide aged accounts receivable reports that lists all receivables (toll transactions, fees and penalties) for each status or workflow stage, by Toll Facility, including but not limited to:		
	in process (not yet charged to account);		
	charged to account (but not yet invoiced or included on a Violation Notice);		
	Notice of Toll Evasion Violation;		
	Notice of Delinquent Toll Evasion Violation;		
	Collection Agency;		
	Registration Hold and		
	• court.		
1664	The Contractor shall provide aged accounts receivable reports that lists all receivables (toll transactions, fees, penalties) by number of days past due and Toll Facility, including but not limited to:		
	in process (not yet Posted to an account);		
	Posted to an account (but not yet invoiced or sent a Violation Notice);		
	current due (invoiced or sent a Violation Notice but not yet past due);		
	• past due 1-30 days;		

past due 31-60 days; past due 61-90 days; past due 91-120 days; past due 121-180 days; past due 181 days -12 months; past due 12-24 months; past due 24-36 months; past due 36-48 months; past due 48-60 months and past due > 60 months. 1665 The Contractor shall provide invoicing summary reports by Toll Facility, detailing the composition of transactions/trips appearing on Violation Notices by Toll Facility. 1666 The Contractor shall provide invoicing summary reports by transaction status or workflow stage that track Violation Notice generation to final termination of Violation Notice transactions, including but not limited to counts and amounts for: Violation Notices generated; payments; dismissals; status or workflow stage and re-issued.

1.16.3.6. Collection Agencies Reports

1667	The Contractor shall provide reports that track the status of Collections activities, by individual Collection Agency and by Toll Facility, including but not limited to:
	number and dollar value of Collections Placements in Collections;
	number and dollar value of transactions/trips in Collections;
	number and dollar value of Collections Placements successfully collected;
	number and dollar value of transactions/trips successfully collected;
	 outstanding amounts (total and separated by fees, penalties and tolls);
	 amounts collected (total and separated by fees, penalties and tolls) by payment source (BOS, Collection Agency #1 or Collection Agency #2);
	length of time in Collections;
	 accounts recalled from Collections (total and separated by fees, penalties and tolls);

- transactions/trips recalled from Collections (total and separated by fees, penalties and tolls);
- accounts returned uncollectible;
- transactions/trips returned uncollectible and
- success rate.
- The Contractor shall provide Collections inventory reports that reconcile to Collections monthly inventory by Collection Agency, and provide status on Collections, including but not limited to:
 - number and dollar value of outstanding accounts in Collections at the beginning of the month;
 - number and dollar value of transactions/trips in Collections at the beginning of the month;
 - number and dollar value of accounts added during the month;
 - number and dollar value of transactions/trips added during the month;
 - number and dollar value of accounts returned at the end of the month, by type;
 - number and dollar value of transactions/trips returned at the end of the month, by type;
 - number and dollar value of outstanding accounts in Collections at the end of the month:
 - number and dollar value of transactions/trips in Collections at the end of the month and
 - outstanding amount in Collections at the end of the month.

1.16.3.7. Write-Off Reports

The Contractor shall provide a listing of all eligible and processed Write-Offs and their disposition (such as sent to the Authority for approval, Approved by the Authority, processed), by Toll Facility and in summary, broken down by toll, fee and penalty including but not limited to: all account-level and transaction-level Write-Offs and prior year Write-Offs paid in current year with a breakdown by selectable period for each year.

1.16.3.8. CTOC Reports

- The Contractor shall provide all Interoperable Agency and Toll Facility Reports described in Attachment A: WRTO and CTOC Technical Specifications for Interagency Electronic Data Interchange. The Interoperable reports provided in the BOS shall be updated and modified to be in compliance with the Interoperable Agency Interface specifications.
- The Contractor shall provide reports on the status of Interoperable reports and file transmissions to all Toll Facilities, such as files expected but not received, issues with file transmissions/data, etc.
- 1672 The Contractor shall provide the following reports:

•	summary report;
•	Interoperable Agency discrepancy;
•	adjustments report (Interoperable Agency) and
•	Toll Facility discrepancy report.

Operations Reports 1.16.4.

1.16.4.1. **Operations Management Reports**

Operations management reports shall provide insight into the review and management of operations and assess performance.

1673	The Contractor shall provide real-time operations reports.
1674	The BOS shall provide the capability to drill-down to the details for a selected transaction, including the image associated with the license plate if applicable.
1675	The Contractor shall provide BOS performance reports that track the performance of CSC Operations, including but not limited to:
	customer contacts, mail handling and Violation Notification response;
	Case handling;
	first contact resolution;
	transponder Fulfillment;
	payments processed;
	customer disbursements processed;
	Interoperable Agency settlements processed;
	returned payments processed;
	chargebacks processed;
	payment plans initiated and
	balancing and reconciliation.
1676	The Contractor shall provide staff performance reports that track the performance of individual Authorized Users over a period of time (for example, daily weekly and monthly) including but not limited to:
	customer contacts, mail handling and Notification response;
	Case handling;
	first contact resolution;
	transponder Fulfillment;
	payments processed;
	customer disbursements processed;

- Interoperable Agency settlements processed;
- returned payments processed;
- chargebacks processed;
- payment plans initiated and
- balancing and reconciliation.

1.16.4.2. Self-Service Website Reports

- The Contractor shall provide Self-Service Website activity reports that list all activity associated with the Self-Service Website, and enable operations to assess the Self-Service Website's effectiveness, including but not limited to:
 - number of accounts setup via the Self-Service Website;
 - account statements accessed;
 - account Maintenance activities;
 - payments;
 - disputes;
 - Cases opened;
 - Violation Notice inquires and
 - other general information.
- The Contractor shall provide reporting on the Self-Service Website usage, including but not limited to:
 - number of individual hits by screen;
 - number of page views;
 - number of repeat visitors versus new visitors;
 - bounce rate;
 - number of updates made to accounts and
 - number of functional processes, for example Violation Notice payments.

1.16.4.3. Self-Service Mobile Application Reports (Phase II and optional)

- The Contractor shall provide Self-Service Mobile Application activity reports that list all activity associated with the Self-Service Mobile Application, and enable operations to assess the Self-Service Mobile Application's effectiveness, including but not limited to:
 - number of accounts setup via the Self-Service Mobile Website;
 - account statements accessed;
 - account Maintenance activities;
 - payments;

disputes;
 Cases opened;
 Notice inquires and
 other general information.

The Contractor shall provide reporting on the Self-Service Mobile Website usage, including but not limited to:
 number of individual hits by screen;
 number of page views;
 number of repeat visitors versus new visitors;
 bounce rate;
 number of updates made to accounts and
 number of functional processes, for example account replenishments.

1.16.4.4. Contact Center Reports

1681	The Contractor shall provide contact center reports that help determine how the Contact center is functioning and its effectiveness, including but not limited to:
	quality score rating for CSRs;
	average talk time;
	 number of calls offered to CSRs;
	number of calls answered by CSRs;
	number of calls abandoned;
	average time before abandonment;
	 service level (what percentage of the calls are answered within the agreed-upon timeframe, such as what percentage of calls are answered within 60 seconds);
	average speed of answer;
	abandon rate;
1682	CSR availability;
	account Maintenance activities;
	payments processed;
	transaction history accessed;
	requested customer support and
	obtained general information.
	The Contractor shall provide other performance reports to monitor, including but not limited to:

	total number of calls taken by the IVR System;
	total number of calls taken using virtual queuing;
	total number of calls taken by the CSR (separate by Spanish and English);
	the number of and average length of calls handled for each line;
	the average and maximum wait time for each line;
	the time taken for a CSR to answer a call once that option is selected and
	the number of times a given menu is repeated consecutively during a given call.
	The Contractor shall provide other performance reports to monitor emails, including but not limited to:
	number of emails received CSRs;
	number of emails answered by group or individual CSRs;
1683	number of emails unanswered;
	average speed of answer by time period, daily, weekly, monthly;
	CSR availability and
	email purpose.
	The Contractor shall provide other performance reports to monitor chats, including but not limited to:
	number of chats offered to CSRs;
	number of chats answered by CSRs;
1684	number of chats abandoned;
	average speed of answer by time period, daily, weekly, monthly;
	CSR availability and
	chat purpose.
1685	The Contractor shall provide other performance reports to monitor texting, including but not limited to:
	number of texts offered to CSRs;
	number of texts answered by CSRs;
	number of texts unanswered;
	average speed of answer by time period, daily, weekly, monthly;
	CSR availability and
	Text purpose.

1.16.4.5. Print/Mail Reports

1686	The Contractor shall provide reports that allow operations to monitor the Print/Mail House Service Provider (optional) and/or Contractor performance against agreed to Performance Measures and manage USPS mailing activities, including but not limited to:
	quantity of Notification per type;
	mailing time since receipt of files;
	Notifications rejected and not mailed with reasons and
	Exceptions.
1687	The Contractor shall provide reports that show trends as they relate to USPS mailing operations workflow performance (volumes and amounts printed and mailed), including but not limited to:
	Notification for each page limit (for example one-page, two-page, etc.);
	additional inserts;
	printing and mailing exceptions;
	returned mail, with and without forwarding address;
	bad address and
	performance against the agreed upon Performance Measures as a percentage by type of Notification.
1688	The Contractor shall provide reports that can be used to reconcile/verify invoices from the Print/Mail House Service Provider (optional).

1.16.4.6. BOS Management Reports

1689	The Contractor shall provide reports that allow for transaction/trip reconciliation of the BOS, including but not limited to:
	transactions/trips exchanged with the ETTM System;
	transactions/trips Posted to accounts and
	transactions/trips exchanged with Interoperable Agencies.

1.16.4.7. Contractor Performance Requirements Reports

Contractor Performance Measures reports shall assist the Authority and the Contractor in tracking, management, and assessing of the Contractor against the Performance Measures. The reports shall be designed and Approved during the Reports Design Workshop.

1690	The Contractor shall provide BOS-generated reports that allow Authorized Users to
	monitor performance to date against each of the Performance Measures. For example, the
	month to date and year to date performance against any individual Performance Measure.
1691	To the extent possible the reports shall automatically calculate the actual performance
	against the required Performance Measure(s).

- The Contractor shall provide the capability to select a random sample of the work for review and audit including but not limited to:
 - provide hyperlinked report reflecting a random sample of a certain number of Cases over a certain period of time (for example, 100 Cases which were opened or closed between June 1 and June 30) which shall allow the Authority to click on the hyperlink to open and audit each Case and
 - provide hyperlinked report reflecting a random sample of a certain number of adjusted or reversed transactions/trips over a certain period of time (for example, 100 transactions/trips that were dismissed between June 1 and June 30) which shall allow the Authority to click on the hyperlink to open and audit each dismissal.

1.16.4.8. ETTM Contractor Performance Measures Reports

ETTM System Contractor Performance Measures reports shall assist the Authority, the Contractor and the ETTM System Contractor in tracking, management, and assessing of the ETTM System Contractor against a subset of their Performance Measures. The ETTM System Contractor has the responsibility to provide for the majority of their Performance Measures Reporting. The report shall be designed and Approved during the Reports Design Workshop.

1693	The Contractor shall provide reports that allow Authorized Users to monitor the ETTM System Contractor performance to date against a subset of the ETTM System Requirements Performance Measures.
1694	The Contractor shall provide ETTM System Contractor performance reports which track the performance of the ETTM System, including but not limited to:
	exchange of data and files between the ETTM System and the BOS and
	 results of all BOS and CSC Operations Contractor QA activities (for example, trip building and image processing accuracy).

1.16.5. Interface Reconciliation Reports

1.16.5.1. General Requirements for Interface Reconciliation Reports

The BOS interfaces with various other systems and Third-Party Service Providers, as such, reconciliation of the data transfer process and exception identification are critical elements of the BOS. In Interfaces where the BOS initiates the file transfer process, the BOS shall track the successful creation of the file as required by the schedule (Configurable), the successful transfer of the file, the acknowledgement by the third-party of the successful receipt and processing of the file, the receipt of the reconciliation or response file from the third-party and the BOS's successful receipt, processing and acknowledgment of the response file. A similar tracking and reporting shall be provided when the BOS is the recipient of the transfer process. Reconciliation reports shall reconcile to other BOS and financial reports and shall meet the following Requirements.

These reconciliation reports shall be provided in addition to, and not in lieu of, automated reconciliation processes as described in the Requirements.

1.16.5.2. Reconciliation with ETTM System Transactions, Reconciliation Files and Images Reports

These reports shall allow the balancing and reconciliation of transactions/trips and images throughout the revenue cycle, identify variances and errors and assist in investigating the problems, thus minimizing lost revenue. Such reports shall help identify trends in the flow of transactions, their final termination and reconciliation to the ETTM System. The transmission of the Transponder Status List files received from the Interoperable Agencies and the home Transponder Status List to the ETTM System also shall be tracked.

1695	The Contractor shall provide transaction and image reconciliation reports that help identify issues, including but not limited to: transmission errors, data validity errors, missing images, missing transactions, traffic and transaction trends and exceptions.
1696	The Contractor shall provide transaction transmission reconciliation reports that help validate that all transactions/trips transmitted by the ETTM System made it to the BOS and are correctly processed. These reports also shall validate that all other transmissions made by the ETTM System were successfully received by the BOS and that all transmissions made by the BOS are successfully received by the ETTM System.
1697	The Contractor shall provide daily transaction transmission reconciliation reports that list all the transactions/trips transmitted to the BOS, the number of transactions/trips and the time these transactions/trips were acknowledged by the BOS. These reports also shall list the transactions/trips transmitted to the BOS that were rejected, the status of the retransmission and records that were identified as exceptions by the receiving entity.
1698	The Contractor shall provide transaction/trip transmission reconciliation reports that summarize the transactions/trips (quantity, amount, Posting status and Posted/paid amounts) by Payment Type that can be validated against ETTM System reports.
1699	The Contractor shall provide image transmission reconciliation reports that help validate that all images and associated transactions/trips transmitted by the ETTM System were successfully received by the BOS. The reports shall list all the transaction images transmitted to the BOS, the number of images and data set in each file, as well as the time these files were acknowledged by the BOS.
1700	The Contractor shall provide image transmission reconciliation reports that list the transactions/trips transmitted to the BOS that were rejected and the status of the retransmission and images identified as exceptions by the BOS.
1701	The Contractor shall provide transaction and revenue reconciliation reports that reconcile with the Financial Account reports and ETTM Systems reports.
1702	The Contractor shall provide transaction and revenue reconciliation reports that reconcile with accounts receivable and revenue reports for all transactions.
1703	The Contractor shall provide reports that track the receipt of the TSL to the ETTM Systems.

1.16.5.3. Reconciliation with Interoperable Agencies Reports

Interoperability reports are provided to assist in reconciling transaction/trips and financial settlement with Interoperable agencies.

1704	The Contractor shall provide all CTOC reports based on the most recent ICD at the time of
	Go-Live. The current CTOC ICD is in Attachment A: WRTO and CTOC Technical
	Specifications for Interagency Electronic Data Interchange.
	The Contractor shall provide all CTOC type reports for all interoperable and other service related transactions/trips processed by TCA.

1.16.5.4. Reconciliation with ROV Lookup Source(s) Reports

The BOS shall Interface directly with one or more ROV Lookup sources including multiple direct DMV connections and a third-party ROV Lookup Provider to obtain vehicle registration information. The California DMV Interface shall also be used for the placement and removal of Registration Holds. The exchange of information and status shall be tracked and reported. Reports provided by the BOS shall match the transactional data provided to the applicable ROV Lookup Service Provider.

1706	The Contractor shall provide reports that track the transmission of each vehicle registration lookup request, acknowledgment and response to each request. Data shall include the processing status of each record, including re-transmission and response code for each ROV Lookup Service Provider (initially California, Arizona, Oregon and Nevada DMVs and the Contractor-selected ROV Lookup Provider).
1707	The Contractor shall provide reports that help identify license plates, including but not limited to:
	by Jurisdiction;
	by license Plate Type including temporary plates;
	license plates for which no registration data is provided;
	reason that no registration data is provided;
	 license plates that have no registration data after an established period of time (Configurable);
	problematic license Plate Types and
	exceptions that need to be investigated (Cases).
1708	The Contractor shall provide reports that provide ROV Lookup request and response trends by ROV Lookup Service Provider, Jurisdiction, date and license Plate Type.
1709	The Contractor shall provide reports that reconcile Registration Hold requests with applicable DMV(s) initially California, including but not limited to:
	number of Registration Hold requests;
	number of Registration Holds placed;
	number of Registration Hold requests rejected;
	reason that the Registration Hold request was rejected;
	exceptions that need to be investigated (Cases).
	number of payments received at DMV;

dollar amount of payments received at DMV;
payments amount received from DMV and
number of Registration Holds released;
The Contractor shall provide reports that track Registration Hold statuses and any discrepancies between the status per the BOS and the status per the DMV or out-of-state DMV.

1.16.5.5. Reconciliation with Rental Car Companies Reports

The BOS utilizes the rental car company file exchange process (in addition to what rental car companies can perform on the Self-Service Website Portal) to maintain the vehicle database. File uploads also shall be used to obtain/update vehicle license plates.

1711	The Contractor shall provide the same reports for rental cars processed through TCA.
1712	The Contractor shall provide reports that track the vehicle license plate information provided by the rental car company, including but not limited to:
	files transmitted or loaded;
	license plates added;
	license plates identified as exceptions;
	effective beginning and end dates/times of the license plates;
	updates made to the license plate information and
	the processing status of the license plates.
1713	The Contractor shall provide reports that track the rental information provided by the rental car company, including but not limited to:
	files transmitted or loaded;
	 Image-Based Transactions/Trips against license plate and/or renter/operator for rental period;
	outstanding amounts;
	vehicle status (Registration Hold);
	Notices and Alerts;
	status or workflow stage and
	• exceptions.
1714	The Contractor shall provide reports that reconcile to Image-Based Transaction/Trip noticing and financial reports.
1715	The Contractor shall provide reports that show Image-Based Transaction/Trip trends and activity on rental car company license plates.
1716	The Contractor shall provide reports that show Image-Based Transaction/Trip trends and activity by license plate.

Merchant Account Reconciliation with Merchant Service Provider Reports 1.16.5.6.

The BOS shall Interface with the Merchant Service Provider for processing Credit Card payments and refunds.

1717	The BOS shall balance and reconcile every record processed, including but not limited to:
	payments (sales);
	• voids;
	• refunds;
	exceptions and
	chargebacks, chargeback reversals and replenishment.
1718	The BOS shall load and process the Merchant Service Provider reconciliation files in support of the detailed reconciliation.
1719	The Contractor shall provide reports that track the Credit Card files transmitted to the Merchant Service Provider in batch mode and/or records transmitted in real-time, including but not limited to:
	number of payments;
	chargebacks, chargeback reversals and replenishments;
	• refunds;
	reversals;
	adjustments;
	• errors;
	authorizations;
	• settlements;
	payment source;
	Credit Card type;
	processed amounts;
	process status (for example accepted, declined);
	 counts and amounts reported by the Merchant Service Provider for each transaction type;
	• counts and amounts reported by the Merchant Service Provider for each card type;
	• variances;
	declined reasons;
	date and time of transmission;
	Credit Card account number in PCI-compliant format;

	account number;
	number of attempts and
	processing fees.
1720	The Contractor shall provide reports that track the transmission of the Credit Card expiration update request files, including but not limited to:
	records in the file;
	response received;
	• errors;
	no response;
	• retries;
	old expiration date;
	new expiration date;
	Credit Card account number in PCI-compliant format;
	account number;
	current account balance (receivable or prepaid);
	status of update;
	exceptions and
	account Alerts.
1721	The Contractor shall provide reports that track the transmission of the Credit Card information update request files, including but not limited to:
	records in the file;
	response received;
	• errors;
	no response;
	• retries;
	old information;
	new information;
	Credit Card account number in PCI-compliant format;
	account number;
	current account balance (receivable or prepaid);
	status of update;
	exceptions and
	account Alerts.

1722	The Contractor shall provide reports that display Credit Card payment processing fees, including but not limited to:
	card type;
	transaction type;
	• quantity processed;
	amount processed;
	per-transaction fees and
	percentage fees.
1723	The Contractor shall provide reports that display Credit Card payment processing trends, including but not limited to:
	• card type;
	amount processed;
	amount declined;
	• quantity;
	number of errors;
	transaction type (for example, payment, replenishment, reversal, refund);
	fees and
	percentages.
1724	The Contractor shall provide reports that balance to financial reports.
1725	The Contractor shall provide reports that balance to settlement reports.
1726	The Contractor shall provide reports that balance to account reports.
1727	The Contractor shall provide reports that balance to operations (CSR, Website, IVR) reports.
1728	The Contractor shall provide reports that validate compliance to the Performance Measures and note the exceptions.

Reconciliation with Credit Card Update Service Provider Reports 1.16.5.7.

1729	The Contractor shall provide reports that reflect successful or unsuccessful transmission of update files.
1730	The Contractor shall provide reports that reflect the number of updates requested from the Credit Card update service provider.
1731	The Contractor shall provide reports that reflect the number of updated Credit Card files received from the Credit Card update service provider.
1732	The Contractor shall provide reports that track the transmission of the Credit Card expiration update request files, including but not limited to:
	records in the file;

response received; errors; no response; • retries; old expiration date; new expiration date; • Credit Card account number in PCI-compliant format; account number: • current account balance (receivable or prepaid); status of update; exceptions and account Alerts. 1733 The Contractor shall provide reports that track the transmission of the Credit Card information update request files, including but not limited to: records in the file; response received; errors; no response; retries: • old information; new information; Credit Card account number in PCI-compliant format; account number; current account balance (receivable or prepaid); status of update; exceptions and account Alerts.

1.16.5.8. Reconciliation with the Authority's Bank Reports

All payments and funds received by the BOS are deposited in the Authority's Bank Accounts. The Authority requires the capture of all deposit data in the BOS. Fees for services provided also must be reflected separately in the reporting.