	• Credit Card account number in PCI-compliant format;
	• account number;
	• current account balance (receivable or prepaid);
	• status of update;
	• exceptions and
	• account Alerts.
1736	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 Agencies Bank Reports

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

1737	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile files received from and sent to the banks have been processed.
1738	The Contractor shall provide reports that support and identify source of errors, variances and exceptions.
1739	The Contractor shall provide completed reconciliation and supporting BOS reports that reconcile expected revenue to the actual revenue for each account established by the BOS.
1740	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to the financial reports.

1741	The Contractor shall provide reconciliations and supporting BOS reports that reconcile to payments received by the BOS from various entities, such as Interoperable Agencies, Credit Card processor and Lockbox Service Provider (optional).
1742	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various Agencies.
1743	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to payments made by the BOS to various entities, such as Interoperable Agencies and customer refunds.
1744	The Contractor shall provide completed reconciliations and supporting BOS reports that reconcile to the bank statements provided by the bank, including but not limited to:
	• beginning balance;
	• activities for the month (such as payments, adjustments and checks cleared);
	• deposits in transit;
	• outstanding checks;
	• reconciling items and
	• ending balance.

1.16.5.9. *Reconciliation with Collections Reports*

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

1745	Reports provided by the BOS shall track:
	• the transmission of files;
	• Collections Placements in collections by Collection Agency;
	• collections aging and
	• performance of each Collection Agency.
1746	The Contractor shall provide reports that track the transmission of the collection files and collections responses including but not limited to:
	• number and dollar value of accounts by account type in the collections file;
	• outstanding amounts (fees, penalties and Tolls);
	• number and dollar value of Collections Placements;
	• number and dollar value of transactions/trips;
	• number of responses received and
	• number of errors.

1.16.5.10.   Reconciliation with California FTB Tax Intercept Program Reports

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

1747	Reports provided by the BOS shall track:
	• the transmission of files;
	• debts placed with FTB;
	• debt at FTB aging and
	• performance of FTB.
1748	The Contractor shall provide reports that track the transmission of files and FTB responses, including but not limited to:
	• number and dollar value of accounts by account type in the FTB file;
	• outstanding amounts (fees, penalties and tolls);
	• number and dollar value of FTB Placements;
	• number and dollar value of transactions/trips;
	• number of responses received and
	• number of errors.

1.16.5.11.   Reconciliation with Lockbox Reports (optional)

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

1749	The Contractor shall provide reports that track Lockbox Service Provider payments (summary and detail), including but not limited to:
	• account number;
	• Payment Type;
	• number of payments;
	• payment amounts;
	• payment dates;
	• document type;
	• document number;
	• amount exceptions;
	• account exceptions and
	• other exceptions.
1750	The Contractor shall provide reports that balance to financial reports.

1751	The Contractor shall provide reports that balance to settlement reports.
1752	The Contractor shall provide reports that balance to account reports.
1753	The Contractor shall provide reports that display payment trends.

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

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

1754	The Contractor shall provide reports that track the Notification files and the Print/Mail House Provider responses, including but not limited to:
	• number of records transmitted;
	• number of responses received;
	• number of bad addresses and
	• number of corrections made.
1755	The Contractor shall provide reports that track the Notification files transmitted to the Print/Mail House Provider, including but not limited to:
	• Notification type quantity and total dollar value;
	• number of Violation Transactions/Trips and fees and penalties in each Notice;
	• date transmitted;
	• response on each Notification;
	• processing status of each Notification;
	• date of printing;
	• date of mailing;
	• number of pages;
	• Notifications that were not mailed;
	• mailing exceptions (such as duplicate mailing or Notification missing elements);
	• cancelled requests;
	• re-prints and
	• re-transmissions.

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

The commercial off-the-shelf (COTS) data analytics Software will be used in conjunction with the data ware house to provide data analytics (business intelligence).

1756	The Contractor shall provide a COTS data analytics solution that works in conjunction with the data warehouse.
1757	The Contractor shall provide the capability for the analysis of multi-dimensional data sets, arrays and data cubes using an online analytical processing (OLAP) tool.
1758	The Contractor shall provide 10 pre-defined analytics reports (to be determined during a post-Go-Live Phase II period).
1759	The Contractor shall provide the capability for Authorized Users to display, print and export to reports and presentations the results of analysis in multiple formats, including but not limited to:
	• all standard forms of tabular reporting;
	• all standard forms of graphs;
	• all standard forms of charts and
	• maps by ZIP code, city, county, state and country.
1760	The Contractor shall provide customized, graphical, reporting templates for the display, printing and export of information into reports and presentations, including but not limited to:
	• graphical displays representing the entire 91 Express Lanes and
	• graphical displays representing OCTA and RCTC 91 Express Lanes separately.
1761	The Contractor shall provide the capability for Authorized Users to do self-service data queries and analysis.
1762	The Contractor shall provide the capability to produce analytical reporting so activity on the complete 91 Express Lanes or only the OCTA and RCTC potions can be analyzed by any combination of the following parameters in both report and data query format, including but not limited to:
	• account type;
	• account status;
	• customer account demographic information;
	• CSC operational customer service data;
	• customer Notifications information;
	• payments type;
	• vehicle type;
	• Interoperable or home customers;
	• revenue type;

	• Transponder-Based Transactions/Trips;
	• Image-Based Transactions/Trips;
	• plate type;
	• Violations;
	• I-Tolls;
	• time period (for example, day, week, month, year)
	• time of day and
	• day of week of the transaction.

Exhibit B

Volume III: Customer Service Center (CSC) Operations

CONTENTS

1. CSC OPERATIONS REQUIREMENTS INTRODUCTION

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

1.1. Operational Requirements

1.1.1. General Requirements

This section lists the high-level operations Requirements.

1	The Contractor shall provide all management, system maintenance, supervisory, financial and CSC Operations staff, including qualified management, professional and clerical personnel, to professionally operate and administer the Agencies' CSC Operations in a manner that meets all required Performance Measures.
2	The Contractor shall put in place the organizational structure and headcount required to meet these Requirements.

1.1.2. Facilities

The Agencies currently utilize three facilities to provide customer service, back office operations and traffic management operations. These include the Corona CSC and WIC, the OCTA Store WIC and the Anaheim Processing Center. The Contractor is required to continue to operate these Agency-provided facilities as described in the sections below. The Contractor will have unlimited access to the facilities, with the exception of the OCTA Store, and may use expanded operational hours as needed to accomplish the Work.

The Contractor will not be charged rent/utilities for the use of Agency-provided facilities and furnishings. However, the Contractor shall be responsible for any required improvements, and all improvements shall be Approved by the Agencies. The Agencies anticipate that these facilities are sufficient for all the CSC and back office functions to be performed within these facilities. The Contractor shall evaluate the facilities for use in performing the Work. See Attachment A: OCTA/RCTC Building Layouts for facility layouts.

3	The Contractor shall coordinate and facilitate tours of CSC Operations facilities and guide tours.
4	The Contractor shall facilitate and coordinate all BOS and CSC Operations facility related repairs (either as landlord covered no-cost repairs, Agencies pay landlord directly for repairs, or Agencies request that the Contractor pay and process as a pass-thru).
5	The Contractor shall provide the coordination and facilitation of various Agency directed meetings in the CSC Operations conference rooms as requested by the Agencies, including but not limited to:

6	• ensuring conference room is clean and all furniture and Equipment is in working order;
7	• providing meals for meetings (pass-thru);
8	• attending meeting.

1.1.2.1. OCTA Store

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

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

1.1.2.1.1. Hours of Operation and Holidays

9	The Contractor shall train and provide escalation and operations support for the OCTA employees and customer relations staff.
10	The OCTA Store WIC shall be open 8 am- 5 pm Monday – Friday, Pacific Time.
11	The OCTA Store WIC shall observe the following Holidays: • New Year's Day; • Memorial Day; • Independence Day; • Labor Day; • Thanksgiving Day; • Friday after Thanksgiving Day and • Christmas Day.
12	For any listed Holiday occurring on Saturday or Sunday, the OCTA WIC shall observe the Holiday on the same day as OCTA's other staff.
13	OCTA may close the OCTA Store WIC (for example, for emergency or weather conditions).

1.1.2.2. Corona CSC and Walk-in Center

The Corona site will house the CSC/customer contact center and WIC. The Contractor may propose performing back office production work such as transponder fulfillment and payment and mail

processing in the Corona CSC. The Corona WIC will serve as a joint WIC between the Contractor and the RCTC staff serving the future I-15 express lanes. From a customer perspective, the experience should be seamless regardless of the entity responsible for resolution of their inquiry.

Location Name	Corona CSC
Address	301 Corporate Terrace Circle, Corona CA 92879
Square Footage	5009
Functionality	WIC and customer contact center, possible back office operations

The Corona facility shall meet the requirements below.

14	The Contractor shall staff and operate the Corona CSC.
15	The Contractor shall provide maintenance at this facility and ensure that the facility is professional in appearance and clean.
16	The Contractor shall exercise due care in the use, maintenance and storage of the Agency-provided facility, property and assets.
17	The Contractor shall comply with all requirements of the property lease and facility license agreements.
18	The Contractor shall provide adequate security systems to safely monitor and secure employees, customers, data, funds, property, equipment and assets.
19	The Contractor shall promptly notify the Agencies of any weakness in the security at the Corona facility.
20	The Contractor shall utilize cameras in accordance with PCI/PII requirements and the Contractor's preferred operational and security approach. The Agencies shall have access to view and copy the camera footage upon request.
21	The Contractor shall be responsible for design, permitting, and all costs associated with Contractor-desired improvements, including any Contractor-desired security improvements, to the Corona locations. Improvements shall be Approved by the Agencies.
22	The Contractor shall make all Agencies-directed and Approved improvements to the Corona facility, if any, as a combination of additional Work and a pass-through cost.
23	The Contractor shall provide a minimum of one Spanish-speaking CSR in the Corona facility during all the hours of operation.
24	The Contractor shall equip the customer contact center in Corona such that customers shall not hear cross talk when contacting the CSC by phone (crosstalk is any phenomenon by which a signal transmitted on one circuit or channel of a transmission system creates an undesired effect in another circuit or channel).
25	The Contractor must coordinate with the Existing BOS and CSC Operations Contractor for an orderly hand-off of the Corona facility.

1.1.2.2.1. Hours of Operation and Holidays

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

26	At a minimum, the CSC Operations functions shall be provided from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time.
27	The CSC contact center shall be open and calls/contacts answered from 8 a.m. to 5 p.m. Monday – Friday, Pacific Time.
28	The Corona WIC shall be open 8 am- 6 pm Monday – Friday, Pacific Time.
29	The CSC shall observe the following Holidays: • New Year's Day; • Memorial Day; • Independence Day; • Labor Day; • Thanksgiving Day; • Friday after Thanksgiving Day and • Christmas Day.
30	For any listed Holiday occurring on Saturday or Sunday, the CSC shall observe the Holiday on the same day as Agencies' staff.
31	The Contractor shall close the CSC upon Approval from the Agencies (for example, for emergency or weather conditions).

1.1.2.3. Anaheim Processing Center/CSC

The Anaheim site houses the back-office production work such as image review support, payment processing, financial management, Violation and collections processing, system and database administration, data server room and the Traffic Operations Center. This facility can also be used as an overflow facility for inbound/outbound call/contact handling and other CSC activities.

Location Name	Anaheim Processing Center/CSC
Address	180 North Riverview Drive, Suite 200 Anaheim CA 92808
Square Footage	11,985
Functionality	Back-Office Processing, TOC, CSC/customer contact center overflow

The Anaheim facility shall meet the requirements below.

32	The Contractor shall staff and operate the Anaheim CSC facility.
33	The Contractor shall provide janitorial and maintenance at this facility and ensure that the facility is professional in appearance and clean.
34	The Contractor shall exercise due care in the use, maintenance and storage of Agency-provided facilities, property and assets.
35	The Contractor shall comply with all requirements of the property lease and facility license agreements.
36	The Contractor shall provide adequate security systems to safely monitor and secure employees, customers, data, funds, property, equipment and assets safe.
37	The Contractor shall promptly notify the Agencies of any weakness in the security at the Anaheim CSC facility.
38	The Contractor shall utilize cameras in accordance with PCI/PII requirements and the Contractor's preferred operational and security approach. The Agencies shall have access to view and copy the camera footage upon request.
39	The Contractor shall be responsible for design, permitting, and all costs associated with Contractor-desired improvements, including any Contractor-desired security improvements, to Agency-provided locations. Improvements shall be Approved by the Agencies.
40	The Contractor shall make all Agencies-directed and Approved improvements to the Anaheim facility, if any, as a combination of additional Work and a pass-through cost.
41	The Contractor shall provide a minimum of one Spanish-speaking CSR in the Anaheim Processing Center Facility during all the hours of operation.
42	The Contractor must coordinate with the Existing BOS and CSC Operations Contractor for an orderly hand-off of the Anaheim Processing Center/CSC Facility.

1.1.2.3.1.   Hours of Operation and Holidays

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

43	At a minimum, the CSC Operations functions shall be provided from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time.
44	In the event that the Anaheim Facility is used as an overflow call center, the CSC contact center shall be open and calls/contacts answered from 8 a.m. to 5 p.m. Monday – Friday, Pacific Time.
45	The Anaheim Facility shall observe the following Holidays: • New Year's Day; • Memorial Day;

	• Independence Day;
	• Labor Day;
	• Thanksgiving Day;
	• Friday after Thanksgiving Day and
	• Christmas Day.
46	For any listed Holiday occurring on Saturday or Sunday, the Anaheim CSC shall observe the Holiday on the same day as Agencies' staff.
47	The Contractor shall close the Anaheim CSC overflow operations upon Approval from the Agencies (for example, for emergency or weather conditions).

1.1.2.4.   Traffic Operations Center (TOC) Operations

The Contractor will provide staffing, 24 hours per day and 365 days per year, at the TOC located at the Anaheim Processing Center/CSC. The TOC system is provided by others and the Contractor is not be responsible for the TOC maintenance agreements or Upgrades and Enhancements, other than the CSC Surveillance CCTV system.

48	The Contractor shall operate the TOC system and provide staff in accordance with the TOC SOPs to be developed by the Contractor during the Implementation Phase, including but not limited to:
	• monitoring of the 91 Express Lanes;
	• coordination of 91 Express Lanes roadway activities and incidents with the Agencies, CHP, Caltrans, customer assistance patrol/freeway service patrol, the ETTM System Contractors, and the BOS administrators and CSC staff as required;
	• development of incident reports;
	• development of traffic and revenue cost estimates related to roadway incidents as requested by the Agencies;
	• monitoring of the CSC Operations;
	• notification and coordination with CSC Operations management as required;
	• monitoring and control of changeable message signs;
	• notification and coordination of TOC system issues and repairs with the TOC contractor;
	• notification and coordination of ETTM System issues and repairs with the ETTM Contractor and
	• management and retrieval of CCTV video.

1.1.2.5.   Serving Customers with Special Needs

All facilities shall meet the Americans with Disabilities Act of 1990 (ADA) standards for accessibility for both staff and customers and be of appropriate size to contain the staff, furniture, equipment and supplies necessary to conduct operations described in this Scope of Work for the duration of the Agreement.

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

1.1.2.6.   Security and Facility Access Control

53	At the Corona CSC/WIC and the Anaheim Processing Center, the Contractor shall be responsible for administering the building access/badge and camera surveillance systems.
54	The Contractor shall provide and/or coordinate all security badges, parking, and administrative needs to access the building office space and for Agency staff or third-party vendors to work from all CSC locations, as needed.
55	The Contractor shall ensure the CSC facilities are accessed only by authorized personnel with the appropriate privileges, and the Contractor shall ensure security is not breached. The Contractor shall be responsible for establishing procedures and policies and carrying out these procedures and policies for all visitors accessing the CSC facilities. The policies and procedures shall be Approved by the Agencies.
56	The Contractor shall ensure access is limited to those functions required for the employees to perform their jobs while providing an appropriate segregation of access, based on employee responsibilities.
57	The Contractor shall maintain and provide to the Agencies as requested an access matrix that lists all personnel with access privileges to the CSC facilities. The matrix shall identify each employee's position, job functions, facility access rights, and access rights. Visitors and guests who are not directly working on the Project must be approved by the Agencies in advance.

58	The Contractor shall conduct reviews of the access matrix against the actual access for all employees in accordance with all security Requirements. Such reviews shall be conducted no less than quarterly or anytime at the request of the Agencies. The Agencies shall be invited to witness this review. The schedule for these reviews shall be included in the Operations Plan.
59	The Contractor shall ensure all facilities used by the Contractor to perform any Work in support of the Agreement shall be established and maintained in compliance with the Security Standards throughout the term of the Agreement.

1.2. Operational Functions

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

1.2.1. Account Management

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

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

	• Collection Agencies;
	• Print/Mail House Provider;
	• Lockbox Service Provider (if used by Contractor);
	• Credit Card Update Service Provider and
	• Merchant Services Providers (MSPs).

1.2.1.1. *Payments, Fees and Refunds*

Contractor will process payments at the CSC facilities and over the phone as well as resolve and post any payments where the Lockbox Service Provider (if used by Contractor) was unable to identify the correct account.

66	The Contractor shall process all payments received from customers either directly or through the services of a Lockbox Service Provider.
67	The Contractor shall resolve and process Lockbox Exceptions if a Lockbox Service Provider is utilized. These exceptions are payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that they can be posted to a customer account as quickly as possible. If all research avenues have been exhausted and documented and the payment remains unassociated, the payment shall be tracked as an unidentified funds Case for future resolution.
68	The Contractor shall support processing of payments by Agency staff, customers, Franchise Tax Board, DMV, Interoperable Partners and Collection Agencies and reconcile all payments to customer accounts and money deposited in the bank.
69	The Contractor shall apply any fees which require manual application using the BOS in accordance with Business Rules, Operations Plan and SOPs.
70	The Contractor shall research, respond to and process chargebacks.
71	After the pre-established time period determined by the Agencies has expired, the Contractor shall issue refunds using the same channel the customer used, if possible, to make the payment, in accordance with the applicable Agency Business Rules, Operations Plan and SOPs.
72	In the case of check refunds, the Contractor shall use Positive Pay to deter check fraud.
73	The Contractor also shall ensure that Credit Card refunds are successfully processed.
74	The Agencies have different Business Rules related to the processing of refunds. Some refunds may be issued by the Contractor; others will be issued by the Agency; however, the Contractor shall enter these refund checks into the Agencies' financial accounting systems for issuance by the Agencies.

1.2.1.2.   Account Plans

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

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

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

1.2.1.3.   Non-Revenue Program

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

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

80	In accordance with the Business Rules, Operations Plan and SOPs, the Contractor shall provide support for all of the Agencies' non-revenue programs.
81	Prior to applying a non-revenue plan to a transponder, plate or an account, the Contractor shall obtain Approval from the Agencies.
82	The Contractor shall maintain documentation of authorization for each non-revenue plan that has been assigned to a transponder or an account, and this documentation shall be available for review by the Agencies at all times.

83	The Contractor shall manage non-revenue account participants certification that the transactions/trips on a non-revenue account are according to the agreement.
84	The Contractor shall perform random checks to confirm the transponder is being used on an authorized plate
85	The Contractor will administer non-revenue accounts that do not have transponders issued when directed by the Agencies.

1.2.2. Privacy

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

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

1.2.3. Rental Cars

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

90	The Contractor shall work directly with customers, the Rental Car Service Provider and/or other designated entity to accurately process all rental car trips and resolve rental-related requests.
91	The Contractor shall enter into agreements with a Rental Car Service Provider for the purpose of providing a seamless and cost-effective solution for customers. The Agencies shall have the right to review and approve all Rental Car Service Provider Agreements.
92	The Contractor shall provide the capability for a rental customer to post-pay a toll based on the Agencies Business Rules
93	The Contractor shall process affidavits of non-liability for rental/lease vehicles and pursue the named party.
94	The Contractor shall resolve charges by rental agencies for accountholders who incur a charge by rental agencies.

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

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

95	The Contractor shall refer all requests, inquiries, subpoenas, search warrants, public records requests and official information requests to the Agencies, in accordance with Business Rules, Operations Plan and SOPs.
96	In accordance with the Business Rules, Operations Plan and SOPs for handling and tracking of such requests, the Contractor shall gather and provide the information requested by the search warrant or subpoena upon receiving Approval from the Agencies to do so.
97	The Agencies may request that the Contractor compile data for subpoenas, search warrants, litigation matters, or other reasons. The Contractor shall respond to all requests from the Agencies in a timely manner and in accordance with the Business Rules, Operations Plan and SOPs.
98	If the research will take longer than two (2) Business Days, the Contractor must advise the Agencies.
99	The Contractor shall provide qualified personnel to support litigation, including providing testimony as an expert witness upon request from the Agencies.

1.2.5. Image Review Support

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

1.2.5.1.   *Image Review Quality Assurance*

The accuracy of the image review process is critical to the successful identification of the ROV. As part of the Quality Assurance (QA) process, the Contractor will conduct an accuracy review and audit process of the manual and automated image review results. Using the ETTM System Contactors'-provided quality review tool, the Contractor will perform quality reviews on the results from each ETTM System Contractor to ensure that each ETTM System Contractor is accurately identifying a high percentage of license plates.

100	The Contractor shall provide for an adequate number of trained and qualified image review staff to handle the quality review volumes of the Agencies.

101	The Contractor shall perform manual image review on a sample of at least 1% of all Image-Based Transactions/Trips per month that were provided by each Agencies' ETTM System Contractor to determine accuracy of state, plate type, plate number and OCR confidence level.
102	The Contractor shall provide a report to the Agencies of the audit and findings.
103	The Contractor shall correctly determine for each image set whether the ETTM System Contractor accurately processed the image and if not enter the correct plate information or reject code and provide the findings to the ETTM System Contractor.
104	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.5.2.   DMV No Registered Owner Information Return Quality Review

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

105	The Contractor shall review all image transactions/trips that are returned from the DMV source without registered owner information to ensure license plate entry was accurate.
106	The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to: • plate number; • plate type, if applicable and • Jurisdiction.
107	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.5.3.   Customer Inquiry Image Error

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

108	The Contractor shall also research and review images related to customer disputes and correct and reprocess.
109	The Contractor shall accurately enter information related to the vehicle identified in each image set, including but not limited to:
	• plate number;
	• plate type, if applicable and
	• Jurisdiction.
110	The Contractor shall work with the Agencies and ETTM System Contractors to take the necessary steps to correct identified errors from the automated review process so that they do not continue to occur. For example, an ETTM System may be mistaking the letter "E" for the letter "F" for the state of California so the Contractor would communicate the problem to the specific ETTM System Contractor and provide examples of the issue.

1.2.6. Owner Identification

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

111	The Contractor shall establish and maintain up-to-date agreements with each Registered Owner Lookup Service Providers.
112	The Contractor shall provide the capability to track and follow the renewal Requirements for each Registered Owner Lookup Service Provider. For example, a state may require that a DMV data access application form be submitted and approved annually.
113	The Contractor shall use online interfaces to the California and Arizona DMV and other DMVs as they become available to manually look up individual license plates at the request of the Agencies or in order to resolve customer disputes.
114	The Contractor shall provide the following ROV-related activities, including but not limited to:
	• Establish and maintain a relationship with each Registered Owner Lookup Service Provider;
	• Manage current contracts and service level agreements with each Registered Owner Lookup Service Provider;
	• Monitor and evaluate the number of successful matches by jurisdiction;
	• Monitor and evaluate the number of successful matches by Registered Owner Lookup Service Provider;
	• Monitor and evaluate the number of successful matches by type of license plate;

	• Identify issues with manual license plate identification and provide information to allow the ETTM System Contractors to correct the issue, including examples and training material;
	• Identify issues with automatic license plate identification and provide information to allow the ETTM System Contractors to fix the issue, and
	• Identify areas where the ROV match is lower than the average, investigate potential solutions and provide recommendations to the Agencies.
115	The Contractor shall coordinate with the ETTM System Contractors regarding BOS updates required due to any changes in ROV Requirements.
116	The Contractor shall monitor the success of ROV Lookup requests each month and when a change is made by the ETTM System Contractors reporting on the number of requests for which an ROV was obtained (successful lookup) and the number for which a request was not obtained (unsuccessful lookup) by Jurisdiction.
117	The Contractor shall identify Jurisdictions in which the percentage of successful requests decreases by more than five percent (5%) from the prior month and shall work with the appropriate ROV Lookup Service Provider to identify issues and solutions in collaboration with the ETTM System Contractors to ensure images are processed correctly.
118	The Contractor shall develop solutions to increase the ROV Lookup success.
119	The Contractor shall research and then input and manage the BOS Protected Plate data that associates an address with the agency names that are returned from the DMV or ROV Lookup Provider for license plates registered to a customer affiliated with federal, state or local agency that is allowed to shield addresses.
120	The Contractor shall facilitate the Protected Plate process of entering the correct agency address and resending the Violation Notice.

1.2.7. Customer Communications

1.2.7.1. Outgoing Customer Notification

The Contractor is responsible for all necessary customer communication in accordance with the Operations Plan.

121	The Contractor shall make contact with customers, by using the Agencies' required method of communication about account management, general information, marketing, changes to account and privacy policy.
122	The Contractor shall be responsible for printing, pdf creation, storing and associating with accounts, envelopes, mailing and postage for all communications.
123	The Contractor shall be responsible for providing and assembling all materials necessary for the mailing of transponders including, welcome kit, envelopes, sealing wafers, special inserts, mounting activation stickers and mounting strips.

124	The Contractor shall utilize the USPS/NCOA database services to validate a customer address prior to mailing correspondence.
125	The Contractor shall provide all postage meters and be responsible for payment of any postage meter fees.
126	The Contractor shall be required, at its own expense, to communicate to customers or the general public, including resending corrected notifications, any information related to issues or problems caused by the Contractor that affect customers, as further set forth in the Agreement.
127	The Contractor shall be responsible for printing, packaging and distributing printed information, developed by the Agencies.
128	The Contractor shall manage the sending of e-blasts (sending of an email simultaneously to a group of people), developed by the Agencies, to selected groups of customers or all customers using BOS functionality.

1.2.7.2. *Outgoing Communications (Future)*

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

129	If directed by the Agencies, the Contractor shall manage the mailing of invoices and the subsequent customer dispute and Violations process.

1.2.7.3. *Incoming Customer Communication*

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

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

130	The Contractor shall assume the responsibility for the two existing post office boxes from the existing contractor and establish any additional post office boxes it needs.
131	The Contractor shall receive mail from the post office boxes for incoming mail.
132	All customer contacts handled directly through the Contractor staff shall be noted in the customer account in the BOS to maintain an accurate history of the customer's interaction with the CSC and Agencies.

133	The Contractor shall provide a response for all correspondence received from the customer regardless of which channel the customer uses to communicate, including but not limited to, correspondence received by:
	• email;
	• fax;
	• text;
	• chat;
	• communication from the website's "Contact Us" feature;
	• delivered (USPS or by other means) correspondence and
134	The Contractor shall monitor and respond to customer requests received by phone, chat and text in real time when received during regular business hours.
135	The Contractor shall strive to provide first contact resolution and track the number of contacts resolved on first contact.
136	The Contractor shall encourage users of the Agencies' Toll Facilities receiving a Violation Notice to open a FasTrak account when they contact the CSC.
137	The Contractor shall ensure incoming correspondence (paper or electronic) is scanned (in the case of paper correspondence), saved and associated with the customer's account and any applicable Case(s). Non-customer correspondence shall also be scanned and catalogued for easy access. Paper copies shall be shredded, in accordance with security requirements, and policies agreed upon by the Agencies, in adherence with the Security Standards and documented in the Operations Plan.
138	The Contractor shall use the same channel used by the customer or customers preferred channel to respond to the customer correspondence unless the Business Rules, Operations Plan or SOPs specify a different channel or if the nature of the customer issue necessitates the use of a different channel.
139	The Contractor shall monitor the communications channels used and frequency of all customer correspondence and recommend for consideration BOS configuration changes that improve the use of customer-friendly, efficient and cost- effective customer communication methods.
140	Some customer contact may involve questions about Image-Based Transactions/Trips. The Contractor shall utilize the BOS to view images related to the transaction/trip in question and if appropriate work with the ETTM System Contractors to correct issues.
141	All incoming mail shall be processed by the Contractor, in accordance with the SOPs and applicable standards, including but not limited to the Security Standards. Such requirements include but are not limited to: segregation of duties; date stamping the mail, categorization, scanning and/or saving into the BOS as Cases, and then assigning to the appropriate Contractor staff for processing.

142	The Contractor shall develop a workflow process that clearly documents the handling process for all incoming correspondence and communication through all channels, ensuring all incoming correspondence and communications are recorded, reviewed and properly routed (such as, operational correspondence, financial, contractual, etc.). This shall be documented in the Operations Plan and SOPs.
143	The Contractor shall ensure all correspondence handling processes and controls are documented and adhered to by operations staff. The Agencies shall Approve the correspondence handling process and any changes to the handling process.
144	With the exception of customer requests regarding their own accounts, the Contractor shall only answer general inquiries as they relate to general information about the tolling facilities serviced and services provided by the CSC. All other inquires and communications shall be escalated to the Agencies as a Case as set forth in the Operations Plan and SOPs, unless the Contractor is otherwise directed in writing by the Agencies. This includes inquiries from or communications with the media, government agents, Public Records Act requests and individuals representing organizations for purposes other than directly related to their own customer account.
145	The Contractor shall keep a record of all information requests as a Case, inform the Agencies immediately of inquiries from these entities and direct such inquiries to the Agencies, according to the Operations Plan.
146	Customers may contact the Contractor regarding issues the Contractor does not control, for example debris on the roadway, or general tolling questions. The Contractor shall collect the required information and handle the issue in accordance with the Operations Plan. The Contractor shall create a Case and track the issue until it is accurately resolved or handed off to the appropriate party responsible for resolution in accordance with the Operations Plan.

1.2.7.4.   Returned Mail Processing

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

147	The Contractor shall scan each returned envelope and Notification and attach the scan to the correct customer account. Any physical pieces of returned mail received will follow the document disposal process after scanning.
148	The Contractor shall enter a forwarding address, if provided.
149	For addresses without a forwarding address, the Contractor shall mark the address as bad.
150	For bad addresses on FasTrak account correspondence, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.
151	For bad addresses on Violation Notices, the Contractor shall attempt to determine a new address using the USPS/NCOA database and Skip Trace services.

152	The Contractor shall utilize the USPS/NCOA database and Skip Tracing services to find a customer address.
153	If a different, current address is provided, the Contractor shall update the address in the BOS and take the necessary steps for the BOS to re-issue the correspondence.

1.2.7.5.   Collateral Materials for Customers

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

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

1.2.7.6.   Customer Request Management

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

157	Many customer issues or requests (such as, changing a customer's contact information), can be completely resolved at the time of the customer request. If the issue or request is completely resolved during the initial contact, the Contractor shall notate it in the customer's account.
158	Any customer issue or request that cannot be completely and accurately resolved at the time of request shall be entered into the BOS as a Case, for management, tracking and reporting. Contractor's staff shall work open Cases through to final resolution in a timely manner as required in the Operations Plan and in accordance with the Performance Measures.
159	The Contractor shall accurately resolve and respond to customer issues and requests by the customer's preferred method of contact (email and mail) if available and according to the Business Rules, or by letter, email, mail, phone or text depending on the circumstances of the issue/request. The escalation procedures for customer issues and requests shall be described in the Operations Plan.

160	The Contractor shall respond to customer Cases according to the Business Rules, Operations Plan and SOPs. The CSC Manager responsible for Case management shall review the list of open Cases on a daily basis and shall make sure they are accurately resolved in accordance with and within the timeliness set forth in the Operations Plan and the Performance Measures. The Agencies shall be notified immediately if there are any critical comments or issues that need immediate attention.
161	The Contractor shall be responsible for the resolution of all customer disputes, which are managed as Cases, in accordance with the Agencies' policies, the Business Rules, Operations Plan and SOPs.
162	The Contractor shall select the proper case type and case resolution.
163	The Contractor shall utilize pre-approved auto responses for case resolution as appropriate.
164	The Contractor shall process dispute Cases (Investigative Review) involving adjustments to vehicle class, transaction/trip adjustments and reversals, reassigning of Violations, and other resolutions. Specific types of disputes shall require supervisor/manager review and approval, and all waivers, adjustments and reversals shall be in accordance with the Operations Plan and SOPs.
165	The Contractor shall place the disputed transactions/trips and Violation Notices on hold and release the hold in the BOS in accordance with Operations Plan and Business Rules.
166	The Contractor shall ensure all supporting documentation from the customer to resolve a dispute Case, as required by the Operations Plan and Business Rules, is obtained. If the customer does not provide the supporting documentation, the Contractor shall contact the customer in accordance with the timeframes defined in the Business Rules and Operations Plan.

1.2.7.7.   *Ongoing Customer Satisfaction Surveys*

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

167	The Contractor shall offer the survey opportunity to every customer each time they contact the CSC.
168	The Contractor shall contract with a third-party Customer Satisfaction Survey Provider.
169	The Contractor shall create a customer survey program to measure the quality of the services they provide.
170	The Contractor shall modify the program as needed or as directed by the Agencies.
171	The Contractor shall make contact with each customer who rates their experience with an overall score below an agreed upon threshold, as noted in the Operations Plan, within five (5) Business Days of the customer submitting the survey.

172	The Contractor shall monitor the customer surveys and provide a report to the Agencies monthly.
173	The Contractor shall provide training on the survey tool to CSRs and other applicable personnel, including the purpose of the survey and the use of the survey tool.
174	The Contractor shall review survey results with CSRs and other applicable personnel during periodic meetings regarding individual's performance.
175	The Contractor shall provide the Agencies convenient, electronic access to the up to date and historic survey results.
176	The Contractor shall include the customer survey results, including trending, in as part of the Monthly Operations Report.

1.2.7.8. Customer Service Quality Monitoring and Reporting

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

177	The Contractor shall ensure all CSC staff is trained in a manner which ensures excellent customer service in every customer interaction as measured by the Performance Measures.
178	The Contractor shall record the reason(s) for each contact (via all contact channels) by using Approved call wrap-up codes, entering account notes or other tracking approach to document the reason for the contact and memorialize the resolution or required next steps.
179	The Contractor shall monitor and score both live and recorded CSR calls for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
180	The Contractor shall monitor and score Corona WIC CSR interaction, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
181	The Contractor shall review and score all customer interaction channels, resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
182	The Contractor shall review and score Case resolution activities and outcomes for accuracy, efficiency, professionalism and courteousness in accordance with the Approved Quality Plan.
183	The Contractor shall periodically monitor CSR screen navigations by remotely viewing the CSR's screen.
184	The Contractor shall track monitoring results and submit a monthly summary to the Agencies as part of the Monthly Operations Report.

185	The Contractor shall track all escalated issues and resolutions and provide a monthly report to the Agencies as part of the Monthly Operations Report.
186	The Contractor shall review information provided by the Agencies upon their review of customer interaction and make any changes to improve customer service.
187	The Contractor shall provide the capability for the Agencies to, at the Agencies' discretion and without prior notification to the Contractor, monitor all live and recorded calls and all other types of correspondence.
188	The Contractor shall provide for review by the Agencies all documentation related to the Contractor's quality program.
189	The Contractor shall conduct monthly quality monitoring calibration meetings for all Contractor staff who monitor customer interaction. The Agencies shall be invited to attend these meetings.

1.2.8. Transponder Management

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

190	The Contractor shall manage all aspects of the transponder lifecycle. This includes but is not limited to:
	• receiving into inventory;
	• testing transponders upon receipt and prior to issuing;
	• programming transponders as necessary, for example programming a standard 6c transponder to indicate that the vehicle is a motorcycle;
	• assigning and issuing to customers;
	• tracking transponders through their life;
	• recycling (evaluating, cleaning and testing) for reissue;
	• managing transponder recalls;
	• warranty return and replacement and
	• disposal of transponders.
191	Upon customer request, the Contractor shall assign, and mail transponder(s) to customers.
192	The Contractor shall support the distribution of transponders by the Contractor and US mail.
193	The Contractor shall include user guide and mounting instructions, mounting strips and other materials, as may be determined by the Agencies to be required with the distribution of each transponder. The camera-ready copy of any transponder kit materials will be provided by the Agencies and the Contractor shall be responsible for producing these materials.

1.2.8.1.   Transponder Inventory Management

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

194	The Contractor shall be responsible for tracking and transporting the transponders at all CSC facilities and the Agency off-site storage location.
195	The Contractor shall ensure that an adequate supply of transponders is available at all times. When the inventory reaches a pre-determined level identified in the Operations Plan the Contractor shall initiate order requests with the Agencies, based upon existing inventory and forecasted requirements. Purchase orders shall be created by the Contractor, who will order the transponders. The Contractor shall take custody of the transponders directly from the transponder manufacturer/provider at the Agency off-site location or Corona CSC.
196	The Contractor shall ensure that an adequate supply of transponder mounting strips, user guides and mounting instructions, and shielded envelopes for transponders are available at all times to accommodate the transponders issued by the CSC and WICs.
197	CSC issues multiple types of transponders, and as such, the Contractor shall be required to manage multiple types of transponders, possibly from multiple manufacturers/providers.
198	The Contractor shall receive shipments of transponders and shall reconcile shipment contents with electronic manifests provided by the transponder manufacturer. The waybill shall be reconciled against the original purchase order and scanned into the BOS for tracking and reconciliation purposes.
199	Monthly, the Contractor shall conduct a physical audit of the transponders that are under its physical control, including for the various transponder types and statuses and quantities. The audit shall compare the physical counts with the BOS counts by transponder type, location and status and completely reconcile any discrepancies. Transponder audit reports shall be included in the Monthly Operations Report.
200	The Contractor shall support the Agencies in their periodic transponder audits that will be no more frequent than quarterly unless discrepancies are found.
201	The Contractor shall distribute new and recycled transponders, if applicable, using the FIFO inventory method.
202	The Contractor shall manage, coordinate and perform the transponder case, electronics, and battery disposal process and provide the Agencies with evidence of disposal.
203	The Contractor shall subcontract with a Certified Disposal Service Provider.
204	The Contractor shall securely store transponders and batteries scheduled for disposal and prepare and ship the transponders and batteries as required for disposal.
205	The Contractor shall coordinate with the Certified Disposal Service Provider for the shipment of the transponders identified for disposal.

206	The Contractor shall track transponders provided to the Certified Disposal Service Provider for disposal and shall reconcile with the BOS provided balance of disposed transponders in accordance with the Reporting and Reconciliation Plan.

1.2.8.2.   Transponder Testing

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

207	The Contractor shall test one hundred (100) percent of the switchable transponders and ten (10) percent of each roll of sticker tags in each shipment when the transponders are received from the manufacturer. This testing shall include but not be limited to
	• verifying that the transponders function and are correctly encoded;
	• reading the transponder serial number and verifying that the transponder label, barcode and internal coding are consistent, and
	• ensuring the transponders can be read by simulating functionality on the road.
208	The Contractor shall return the transponders which fail the testing to the manufacturer in accordance with the Operations Plan.

1.2.8.3.   Transponder Return to Manufacturer

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

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

1.2.9. Registration Hold

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

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

1.2.10. Collections

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

Because Violation Notices are issued by the respective Agency, delinquent violation debts are placed and tracked with a Collection Agencies by Agency. It is also possible that one of the Agencies may elect to place its debt with a Collection Agency while the other Agency does not.

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

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

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

220	The Contractor shall provide the Collection Agencies.
221	The Contractor shall support outbound collections calls and letters prior to Collections Placements.

222	The Contractor shall verify that the BOS is performing Collections Placements according to the Business Rules, Operations Plan and SOPs.
223	While it is expected that the Collection Agencies will be the primary payment processors for debts in collections, the Contractor shall accept payments for amounts in collections.
224	The Contractor shall verify that the Collection Agencies are accurately updating the BOS and shall work directly with the Collection Agencies to completely and accurately resolve any issues in a timely manner, including identification and resolution of any discrepancies between what the BOS identifies is in collections and what Collection Agencies say is in collections.
225	Using the BOS and other data sources as necessary, the Contractor shall perform reconciliations including but not limited to:
	• reconcile files received from the Collection Agencies to the BOS to ensure the files received from the Collection Agencies are correctly Posted to the BOS;
	• reconcile outstanding collections balances per the BOS to outstanding collections balances per the Collection Agencies on a monthly basis, and research and resolve discrepancies and
	• reconcile amounts collected by the CSC in relation to Collections Placements sent to the Collection Agencies. There should be no duplicated revenue collections on the same Collections Placement.
226	The Contractor shall review and verify invoices submitted by Collection Agencies, along with required backup documentation and providing feedback to the Agencies.
227	The Contractor shall provide a financial reconciliation between the BOS and the Collection Agencies for a specific customer account at the Agencies' request.
228	The Contractor shall provide assistance to the Collection Agencies regarding the research of disputes when customers contact the Collection Agencies and shall coordinate the resolution with the Collection Agencies.
229	The Contractor shall update the BOS when notified by a Collection Agencies that a customer has been allowed to establish a settlement arrangement to pay a lesser amount or to make periodic payments.

1.2.11.   Bankruptcy

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

230	The Contractor shall comply with bankruptcy laws.
231	The Contractor shall document receipt of Notification of bankruptcy within the BOS and place applicable transactions on hold pending the outcome of the bankruptcy process.
232	The Contractor shall remove DMV Holds for trips subject to bankruptcy proceedings.

233	The Contractor shall communicate with the Collection Agencies, as necessary, related to a bankruptcy Notification.
234	The Contractor shall discontinue collection efforts with the Franchise Tax Board for trip subject to bankruptcy proceedings.
235	The Contractor shall update the status of the bankruptcy in the BOS upon notification of changes or the resolution and perform the necessary steps to ensure that the BOS accurately reflects the outcome including but not limited to dismissing amounts due, processing write-offs and reinstating Violations.
236	The Contractor shall send copies of bankruptcy Notifications to the Agencies.
237	The Agencies will notify the Contractor of any bankruptcy proceedings for which the Agencies receive Notifications. The Contractor shall update the status of the bankruptcy in the BOS accordingly and notify the applicable Collection Agency.
238	The Contractor shall follow up with, provide information and respond to requests from all parties including but not limited to customers, attorneys, the bankruptcy courts and the Agencies related to a customer bankruptcy proceeding.

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

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

Because Violation Notices are issued by Agency, the Administrative Reviews and Administrative Review Hearings are conducted by a third-party Administrative Review staff hired by the Agency or Contractor. It is also possible that one of the Agencies may elect to provide a third party Administrative Reviewer while the other elect to have the Contractor provide the Administrative Reviewer.

239	The Contractor shall manage disputes, subsequent resolutions, and support Administrative Reviews.
240	The Contractor shall receive, research, document and resolve all customer disputes.
241	The Contractor shall investigate all customer disputes to determine if the contesting person (ROV) is responsible for the Violation.
242	The Contractor shall mail the results of the investigation to the person who contested the Violation.
243	When the person contesting a Violation is not satisfied with the results of the Contractor's investigation, they may request an Administrative Review. The Contractor shall schedule all Administrative Reviews and collect payment from the customer in accordance with California Vehicle Code.

244	The person contesting a Violation can request a waiver of deposit due to financial hardship. The Contractor shall verify that the person is eligible for financial hardship via verification of their W-9 or other Agency Approved process.
245	The Contractor shall adhere to the California Vehicle Code Violation dispute process and Agencies policies.
246	The Contractor shall thoroughly research disputes and provide the Agencies with all relevant documentation related to disputes submitted for Administrative Review, information regarding any customer requests, and if and how they have been resolved before reaching an Administrative Review Hearing.
247	The Contractor shall attend the Administrative Review Hearing and submit an Evidence Package supporting the Case against the customer for nonpayment of Violation.
248	The Contractor shall implement all required actions resulting from the Agencies' an Administrative Review process.
249	The Contractor shall offer and process reduced Violation penalties in accordance with the Business Rules, Operations Plan and SOPs.
250	On the date of the Hearing, the Contractor shall attend the Administrative Review Hearing and submit the Evidence Package related to the Case for nonpayment of Violation(s).
251	The Contractor shall provide relevant information regarding the violator's debt and any contact with the CSC, including information regarding the violator requests, and if and how they were resolved before reaching an Administrative Review Hearing.
252	The Administrative Review Hearing will result in either the Violation(s) being dismissed or violator being required to make payment. The Contractor shall make adjustments to the balance due and/or collect payment from the customer.

1.2.13.   Banking and Lockbox Services

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

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

253	The Contractor shall reconcile the BOS reports to the bank, all customer payments, Lockbox (if applicable) and merchant accounts on a daily basis.

254	The Contractor shall utilize the Agencies' Bank(s) and Contractor's MSPs to fulfill the requirement(s) of the Bank and MSPs.
255	The Contractor shall utilize and manage the Agencies refund process and associated refund account(s) to disburse customer refunds which require the issuance of a check. The Contractor shall reconcile and report on the refund activities.
256	The Contractor shall provide armored services with daily pickup at both WICs and Anaheim facility. All funds collected by armored services shall be deposited by next business day.
257	The Contractor shall manage a refund account from which they will issue checks for each of the Agencies.
258	The Contractor shall issue all refunds, including checks.
259	The Contractor shall process any lockbox exceptions transmitted by the Lockbox Service Provider within the same day the payment was received from the customer.

1.2.14.   Closing Procedures

260	The Contractor shall perform closing procedures in an accurate and timely manner in accordance with the Performance Measures, including but not limited to:
	• perform Posting Day close to finalize counts and revenue for the Revenue Day,
	• perform month-end close on the last Posting Day of the calendar month and
	• perform year-end close on the last Posting Day of the Fiscal Year.

1.2.15.   Escheatment (unclaimed property)

261	The Agencies follow statutory requirements with regard to uncashed checks issued as a form of refund to customers and other funds deemed unclaimed by the Agencies.
262	The Contractor shall work with the Agencies to follow the Escheatment process.
263	The Contractor shall maintain a register of all uncashed checks. The register shall indicate the name, address, check #, amount of check, check issue date, customer account number, and reason for check issuance.
264	The Contractor shall provide the Agencies with lists by Agency of the uncashed checks which are more than three (3) years old.
265	The Contractor shall provide information and conduct research as requested by the Agencies related to uncashed checks and unclaimed funds.
266	The Contractor shall reissue checks at the Agencies' direction.
267	The Contractor shall identify the funds as Escheated in the BOS as directed by the Agencies.
268	As of Go-Live, the Contractor will assume responsibility for existing unclaimed property.

269	Prior to Escheatment, the Contractor will advertise a Notice of Publication of Unclaimed Funds that will run once a week for two weeks.
270	When no inquiries are received, the checks will revert back to the general fund. The Agencies will provide the Contractor with a list of funds to either reissue a check for or to revert back to the general fund.

1.2.16.   Write-Offs

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

271	The Contractor shall develop a write-off procedure that complies with legislation and the Agencies' policies.
272	Contractor shall configure BOS to perform automatic Write-Offs based on the Business Rules for unpaid balances which meet the Approved criteria.
273	Contractor shall monitor the automatic Write-Offs performed by the BOS and report on these to the Agencies on a monthly basis.

1.2.17.   Reconciliations

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

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

	• perform daily, monthly and annual reconciliation of all transactions placed at a Collection Agency, and
	• perform daily, monthly and annual reconciliation of all Third-Party Service Provider and Business Partner payments.
277	The Contractor shall perform monthly reconciliations of all Financial Accounts, including roll-forward schedules from prior periods, which will be provided to the Agencies for review.
278	The Contractor shall reconcile all payments received from all payment channels within one day of posting to the system. This shall include the identification and resolution of all reconciliation discrepancies.
279	The Contractor shall perform reconciliations, including but not limited to:
	• detailed reconciliation of transactions/trips and revenue, by facility and transaction type;
	• Bank Accounts;
	• refunds by refund type;
	• prepaid account balances;
	• transponder deposits;
	• aged accounts receivable;
	• fees revenue;
	• penalties;
	• Write-Offs;
	• payment transactions and
	• other cost items and revenues.

1.2.18.   Financial Reporting

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

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

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

1.2.18.1.   Audits

1.2.18.1.1. SSAE-18 Type II Audit

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

286	The Contractor shall engage an independent auditor, which has been Approved by the Agencies to perform the SSAE-18 Type II audit.
287	The selected independent auditor shall be experienced and widely recognized in the United States for performing these types of audits. (i.e., the selected audit firm shall perform a minimum of ten (10) such similar audits each year).
288	The Contractor and auditor shall mutually agree on an audit plan, which shall be provided to the Agencies for Approval, including regularly scheduled meetings.
289	The audit shall cover the period of April 1 to March 31 annually, supplemented by a bridge letter covering the period of April 1 through June 30 annually, with the first year covering the Agreement start date through March 31 and the last year covering April 1 through the end of the Agreement term. The Audit periods are deliberately set to include an offset and a bridge letter so that the Agencies' auditors will have the SSAE-18 Type II report in time to start their audit work.
290	The final audit report shall be provided to the Agencies no later than June 30 each year.
291	The Contractor shall comply with all changes to requirements under SSAE-18; in the event SSAE-18 is replaced by a new standard, the new standard shall apply and in the event the SOC1 is replaced by a new reporting form, the Contractor shall submit the new reporting form.
292	The Contractor shall promptly comply with all audit requests.
293	The Contractor shall promptly notify the Agencies of any concerns raised by the auditors, including but not limited to: - any asserted weaknesses; - limitations on audit scope; - the auditors' inability to carry out the audit; - the Contractor's inability to carry out the audit; - any projected cost overruns and - time delays in scheduled audit completion.

1.2.18.1.2. *Quality Audit*

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

294	The Contractor shall conduct daily quality audits in accordance with the Contractor's Quality Plan. All deficiencies identified through the audit process shall be successfully corrected by the Contractor. The findings in the audits will result in a monthly report to the Agencies.

295	The Contractor shall institute any corrective measures and procedural or operational changes as requested and Approved by the Agencies as a result of audits at no additional cost to the Agencies. Items identified by the Agencies as critical shall be corrected immediately. Other items identified by the Agencies as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.

1.2.18.1.3. Other Audits

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

296	The Contractor shall support the Agencies in any audit activity relating to the Agencies' toll collection, BOS, and CSC Operations.
297	The Contractor shall conduct audits in accordance with the Quality Plan. These audits may include but are not limited to:
	• internal control procedures;
	• revenue/transaction reporting;
	• physical inventory audit;
	• security audits;
	• financial audit;
	• facility inspections and
	• OCTA/RCTC processing and performance.
298	As the accountant for the CSC Operations, the Contractor shall supply the Agencies' auditor(s) and management with information and schedules as requested and respond to requests from the Agencies or its auditors in a timely manner.
299	The Contractor shall provide the Agencies and their designee(s) access to the CSC for the purpose of conducting their audit(s).
300	The Contractor shall support the Agencies by running reports and making all requested documentation available for review.
301	The Contractor shall support the Agencies by making Contractor employees, consultants and other involved subcontractors and parties available for interview by auditors.
302	The Contractor shall successfully correct all deficiencies identified through the audit process.

303	The Contractor shall institute all corrective measures and procedural or operational changes as requested and Approved by the Agencies as a result of audits at no additional cost to the Agencies. Items identified by the Agencies as critical shall be corrected immediately. Other items identified by the Agencies as non-critical shall be corrected as soon as practicable in accordance with an Approved schedule.

1.2.19. Revenue Management

304	The following forms of payment will be accepted by CSC. The Contractor shall account for, credit to the customers' accounts and deposit into the appropriate Bank Account(s) all payments in accordance with the Performance Measures:
	• checks (including personal, business, e-check, certified and cashier's checks);
	• money orders;
	• cash (United States currency);
	• Credit Card, including mobile payments and EMV chip integrated circuit card (at in-person locations only) and
	• Debit Card (PIN-less debit only).
305	Using the BOS, the Contractor shall accept payments from customers who use any combination of the above payment methods. For example, customers can choose to pay a portion of their balance using a check and another portion using a Credit Card, or using two (2) or more different Credit Cards.
306	The Contractor shall deposit and post to customer accounts all payments received from all payment channels within the same day the payment was received from the customer.
307	The Contractor shall deposit any checks received by the CSC electronically using Bank-specified check scanners, which shall interface with the bank software.
308	The Contractor staff shall manually key in check information in the event of a check scan failure.
309	The Contractor shall manually apply in the BOS any fees which are not automatically applied through the BOS, in accordance with the Business Rules, Operations Plan and SOPs. Examples of these fee types are a returned check fee or a one-time paper statement fee, which must be selected by the user.
310	The Contractor shall post all customer payments received by operations into the BOS.
311	The Contractor shall develop a full-cycle chain of custody process (such as, how payments transfer from the mail room to an Agency employee for Posting to the bank for deposit) for all payments and cash balances which shall be included in the Operations Plan.
312	The Contractor shall develop and implement money handling, counting and storage procedures that cover items including but not limited to:
	• responsibility for all funds until custody of the funds has passed to the Agencies;

	• all monies (checks and cash) collected shall be stored in a safe in a secure area until collected or deposited by the bank;
	• all money handling, counting and storage shall be performed in a secure area and under dual control at all times and
	• cash shall not be transported through public areas without appropriate security.
313	The Contractor shall deposit all monies received into the Agencies' Bank Accounts.
314	On a daily basis, the Contractor shall reconcile, balance and report to the Agencies all bank deposits of funds received.
315	The Contractor shall develop and implement customer refund procedures in accordance with the Business Rules to be included in the Operations Plan.
316	The Contractor shall remit monies to and collect monies from various parties in accordance with the Performance Measures and Operations Plan. Such remittances may be made by check, wire transfer, or book transfer, and may be made by either the Contractor or the Agencies, in accordance with the Operations Plan and shall include but are not limited to payments to and from: • customers; • the Agencies; • Interoperable Agencies; • Lockbox Service Provider; • DMV; • Collection Agencies, and • Third-Party Service Providers and Business Partners.

1.2.20.   Paper Document Storage

The CSC receives and generates paper documents over the course of daily business. These hard copy documents are scanned into the BOS for easy retrieval and association with applicable accounts and Cases on a timely basis and paper documents are shredded.

317	The Contractor shall provide and Approved approach for the handling, storage, scanning and shredding of all paper documentation in accordance with the Security Standards.
318	The Contractor shall scan all paper documentation into the BOS associating each appropriately with applicable account(s) and Case(s).
319	The Contractor shall redact information in accordance with the Security Standards, Business Rules, Operations Plan and SOPs on the document prior to scanning the paper documentation in to the BOS.

320	The Contractor shall shred and dispose of all paper documentation after it has been successfully scanned in accordance with the Security Standards.

1.2.21.   Interoperability

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

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

321	Working with the Interoperable Agencies, the Contractor shall facilitate the resolution of interface related issues or errors.
322	The Contractor shall provide financial and transactional reconciliation with Interoperable Agencies.
323	The Contractor shall participate in periodic teleconferences and meetings related to interoperability and other interoperability organizations.
324	The Contractor shall provide a point of contact for resolution of issues arising with interoperable transactions/trips and customer service including dispute resolution.
325	The Contractor shall monitor and manage the electronic file transfers within the BOS as required.
326	The Contractor shall manage and reconcile interoperable receivables and payables.

Exhibit B

Volume IV: Performance Measures

CONTENTS

TABLES

1 INTRODUCTION

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

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

1.1 BOS Performance Measures

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

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

Table 1: BOS Performance Measurers and Adjustments

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
1	BOS availability - **Priority 1**	Calculates BOS Availability if a **Priority 1** event has occurred during the period. Monthly Measurement of 99.80% uptime target. Availability shall be calculated as follows: Availability = (1 - [Total number of hours of Priority 1 downtime per month / Total hours in the month]) * 100	A 3% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%; A 5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and A 10% Adjustments to the monthly maintenance fee for availability below 99%.
2	BOS availability - **Priority 2**	Calculates BOS Availability if a **Priority 2** event has occurred during the period. Monthly Measurement of 99.80% uptime target. Availability shall be calculated as follows: Availability = (1 - [Total number of hours of Priority 2 downtime per month / Total hours in the month]) * 100	A 1.0% Adjustments to the monthly maintenance fee for availability between 99.50% and 99.80%; A 1.5% Adjustments to the monthly maintenance fee for availability between 99% and 99.49% and A 3% Adjustments to the monthly maintenance fee for availability below 99%.
3	Interface data and file exchanges	Per individual data or file exchange that is inaccurate, has incomplete data, is not technically compliant with the ICD, the or is not provided in the required time frame, per the ICD and/or agreed to operating procedures. Applies to all Interfaces other than Contractor-provided Third-party Service Providers and Business Partners.	$250
4	Interface acknowledgements	Per individual event of a scheduled data or file exchange that is not acknowledged in the typical or required time frame, per the ICD and/or agreed to operating procedures.	$250
5	Interface exception handling	Per individual data or file exchange where and exception information is not provided to the source system and the designate contact is not notified in the required or typical time frame, per the ICD and/or agreed to operating procedures. Exceptions are inaccurate information identified during data validation or an anomaly that prevents data, files and images from being properly processed.	$250
6	Trip Posting	Per hour or partial hour in which files are not accurately posted within two (2) hours of receipt.	$1000
7	Job Process	Per discrete event where a BOS Software job and/or process does not correctly run and complete within the expected time. Expected time = scheduled time + maximum run time.	$250 per event and up to 60 minutes of delay. $100 for each partial additional hour of delay.
8	Account replenishments	Per calendar day in which all eligible Accounts with a valid payment mechanism are not replenished within one (1) hour of reaching the low-balance threshold.	$2,500 Escalates by $2,500 each subsequent Calendar Day up to a maximum of $10,000 per Calendar Day
9	Sending of customer-initiated, non-batched email or text	Per calendar day for each type of automated Notification that is not correctly sent within 15 minutes of eligibility.	$500
10	Mailing of USPS Notifications	Per subsequent calendar day in which eligible customer Notifications are not sent within three (3) Calendar Days.	$500

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
11	Reporting	Per calendar day for each report that is not generated by the BOS, delivered and/or made available with accurate data per the reporting schedule..	$100
12	Monthly system maintenance reports	Per subsequent Business Day that the monthly report is not generated within the required time frame.	$500
13	Respond to agency requested information	Per subsequent Business Day that Contractor does not provide acknowledgement and status of requested information within two (2) Business Days.	$500
14	Following the Approved change management process	Per event of Contractor not following Approved change management process and required testing before making a change to the BOS Hardware or Software.	$5,000
15	Log, track and report all BOS failures or reported System issues.	Per event of Contractor not following Approved process and accurately logging event within the PMMS.	$250
16	Acknowledgement of BOS failure and degradation notifications by Contractor	Per event without intentional human acknowledgment (recorded within the PMMS) by the Contractor's maintenance personnel of receiving notification of a BOS failure or degradation from the BOS, other Contractor personnel, customers, the Agencies, Third-Party Service Providers and Business Partners or another contractor as follows: • Within one (1) hour of notification for a Priority 1 event; • Within four (4) hours of notification for a Priority 2 event; and • Within twenty-four (24) hours of notification for a Priority 3 event.	Priority 1 - $1,000 Priority 2 - $500 Priority 3 - $250
17	Repair of Priority 1 failure or degradation	Per Priority 1 failure that is not repaired within four (4) hours.	$ 2,500 per event and $200 for each subsequent hour of delay.
18	Repair of Priority 2 failure or degradation	Per Priority 2 failure that is not repaired within twenty-four (24) hours.	$1,000 per event and $100 for each subsequent hour of delay.
19	Repair of Priority 3 failure or degradation	Per Priority 3 failure that is not repaired within three (3) Calendar Days.	$500 per event and $500 for each subsequent Calendar Day of delay.
20	Protect sensitive customer information from exposure to others	Per event of exposure of PII or PCI data to unauthorized persons.	$25,000 per event and per subsequent day of exposure and all costs of direct damages, Notification and remediation.
21	Notify all affected customers of security breach.	Per event of customer Notifications not being sent within two (2) calendar days of security breach.	$5,000 per event and $2,500 for each subsequent Calendar Day of delay.
22	Remediate all PCI or PII related deficiencies	Per calendar day if deficiency remains after one (1) month from the initial date when any PCI or PII vulnerability is identified during PCI compliance audits, normal network and BOS monitoring, testing or vulnerability scans. This includes completing the Approved change management process, complete testing and successful placement into production of fixes required to achieve compliance.	$500 per Calendar Day
23	Recovery Point Objective (RPO)	In case of primary BOS failure and transfer of production to the DR site, where the RPO is more than ten (10) minutes.	$5,000 per event and $1,000 for each subsequent ten (10) minutes of extended RPO.

#	BOS Performance Measure	Measurement Calculation and Frequency of Adjustments	Adjustments
24	Recovery Time Objective (RTO)	In case of primary BOS failure and transfer of production to the DR site, where the RTO is more than twenty-four (24) hours.	$5,000 per event and $250 per each subsequent hour of extended RPO.

1.2 CSC Operations Performance Measurement

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

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

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

1.2.1.1 Performance Scorecard

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

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

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

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

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

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
1	**Reporting of all Operations Failures to the Agencies** - The Contractor shall notify the Agencies of all observed operations failures identifying the failure utilizing the Approved notification process defined in the Operations Plan, SOPs and Business Rules.	Per failure to report observed operational failure using Approved notification process within 60 minutes	3
2	**Monthly Reconciliations** – The Contractor shall ensure all reconciliations are completed per the Requirements and that discrepancies are investigated, resolved, reconciled and closed and that the monthly roll-up of daily reconciliations, summarizing the daily activities for the entire month is provided.	Per month in which monthly roll-up is not provided within three (3) Business Days of month end	30
3	**Quality Assurance –** The Contractor shall ensure that all approved Quality Assurance (QA) processes, per the Quality Plan are completed monthly.	Per month in which 100% of approved QA processes are not followed	40
4	**Customer Satisfaction** - The Contractor shall use a Customer Satisfaction Survey to determine customer satisfaction with how contacts are handled. The post-contact survey questions will gauge the customers' satisfaction with the Service they received when contacting the CSC.	Per month in which Contractor does not achieve an average of 4.5 (at a minimum) out of 5	30
5	**Speed of Answer - Call Center request to speak with a CSR** - The Contractor shall answer incoming calls, after the caller elects to speak with a CSR.	Per Business Day in which 80% of calls are not answered within 60 seconds	3
6	**Abandon Rate –** The Contractor shall ensure incoming calls do not abandon prior to speaking with a CSR.	Per Business Day in which 4% of calls or more are abandoned	3
7	**Speed of Answer - Chat** - The Contractor shall answer incoming chat requests when a customer elects to chat with a CSR.	Per Business Day in which 80% of chats are not answered within 60 seconds	3
8	**Speed of Answer – Text** - The Contractor shall respond to incoming texts when a customer elects to text the CSC.	Per Business Day in which 80% of texts are not answered within 60 seconds	3
9	**Speed of Answer - Email** - The Contractor shall respond to incoming email requests when a customer elects to email the CSC.	Per Business Day in which 90% of emails are not responded to within 1 Business Day	3
10	**First Contact Resolution** - The Contractor shall resolve customer requests on the first contact with the CSC. Customers will be provided a question on the customer surveys to indicate if their request was resolved on the first contact.	Per Business Day in which Contractor does not resolve 85% of calls (per survey results)	5
11	**CSC WIC Customer Wait Time** - The Contractor shall ensure waiting times for customers to interact with a CSR at the CSCs remain within acceptable limits.	Per Business Day in which 80% of wait times exceed five (5) minutes	3
12	**Timeliness of Customer Case Resolution** - The Contractor shall completely and accurately resolve customer requests, including resolving customer complaints, made via all channels. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Agencies is required.	Per Business Day in which 90% of cases are not resolved within one (1) Business Day	3
		Per Business Day in which 98% of cases are not resolved within five (5) Business Days	3
13	**Accuracy of Customer Request Resolution** - The Contractor shall completely and accurately resolve the customer requests. Resolution of a customer request means completely resolving the issue, complaint or inquiry, such that no further follow up by the customer, the Contractor or the Agencies is required.	Per month that 99% accuracy is not met	30
14	**Reason Code Accuracy** - The Contractor shall select the correct transaction reason code. The BOS shall select a random sample set of one-hundred (100) transactions which required a reason code each month which will be reviewed for accuracy as part of the Contractor's Quality Assurance process. Both the process and the final outcome will be evaluated and the transactions which are determined to be adjusted or reversed for the wrong reason or inappropriately adjusted or reversed will be identified.	Per month that 99% accuracy is not met	30

OPS#	CSC Operational Performance Measures	Measurement and Frequency	Non-Compliance Points*
15	**OCTA/RCTC Identified High Priority Issues Acknowledged and Assigned** - The Contractor shall acknowledge and assign to appropriate staff all high priority customer issues. The Agencies will designate specific issues as "high priority" when the issues are provided to the Contractor. These issues are entered into the Case process for tracking to final resolution which will be communicated to the Agencies and the customer.	Per High Priority Issue that is not acknowledged and assigned within two (2) business hours	3
16	**OCTA/RCTC Identified High Priority Issues Accurately and Completely Resolved** - The Contractor shall accurately and completely resolve all high priority customer issues. Resolution means completely resolving the issue for the inquiry, such that the issue requires no further follow up by the customer, the Contractor or the Agencies.	Per High Priority Issue that is not accurately and completely resolved within one (1) Business Day	3
17	**Processing of Returned Mail** - The Contractor shall process all returned mail. The customer account must be updated with any new information and further research tasks shall be undertaken in accordance with the Business Rules to attempt to obtain an address for customers with only an undeliverable address.	Per Business Day in which 90% of the sample size of returned mail is not processed within three (3) Business Days	3
		Per Business Day in which 100% of the sample size of returned mail is not processed within ten (10) Business Days	3
18	**Processing of Transponder Requests** - The Contractor shall package and transmit all transponder requests to shipping provider.	Per Business Day in which 100% of transponder requests are not processed within two (2) Business Days	3
19	**Payment Processing –** The Contractor shall ensure all payments are posted to the correct account.	Per Business Day in which 100% of payments are not processed within two (2) Business Day	5
20	**Research and Resolve Unidentified Payments** - The Contractor shall ensure 100% of all cash, money order and check payments which are ineligible for immediate posting to a customer account (for example, payments missing sufficient information to identify the posting account) are completely and accurately resolved (for example, posted to an account, refunded to the customer or documented as all avenues exhausted). These include payments which cannot be readily associated with a customer account. The Contractor shall be responsible for conducting timely research on these payments so that the payments can be posted to a customer account as quickly as possible or, if all research avenues are exhausted and documented, tracked as unidentified funds in case of future customer contact	Per Business Day in which 100% of all unidentified payments are not completely and accurately resolved within five (5) Business Days	3
21	**Process and Issue Refunds** - The Contractor shall ensure 100% of all eligible refunds are completely and accurately mailed to customer or entered into Agency AP system as directed by the Agencies.	Per Business Day in which 100% of all refunds are not completely and accurately issued within five (5) Business Days	3
22	**Staff Turnover/Attrition** - The Contractor shall ensure the voluntary staff turnover / attrition rate does not exceed 5% of the total workforce each month. The Contractor is expected to implement employee engagement tools, training and career development processes to ensure the workforce remains consistent	Per month in which voluntary turnover/attrition exceeds 5%	10
23	**TOC – Adherence to Standard Operating Procedures –** The Contractor shall follow the SOPs defined for the TOC, which will describe duties such as notifying relevant agencies (CalTrans, Agencies, FSP) of an incident, alerting the tow truck providers, performing pricing signage updates, daily check of cameras, etc.	Per Business Day in which there is an event of non-compliance with the SOPs	3

For monthly measures the Contractor shall measure performance by comparing the target performance level defined in these Performance Measures against their actual performance for the month as applicable.

1.3 Non-Compliance Performance Adjustments

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

Table 3: Non-Compliance Adjustments

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

1.4 Escalation

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

1.5 Corrective Actions

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

1	The Contractor shall identify the failure condition, take immediate action to remedy the condition and ensure that corrective action is taken to prevent repeated failures.

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

1.6 Non-Chargeable and Chargeable Failures

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

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

1.6.1 Non-Chargeable Failures

7	Non-chargeable failures are limited to:
	• Force majeure, as defined in the Agreement;
	• BOS failures caused by environmental or operating conditions outside of those that the Contractor controls as established in the Requirements;
	• Preventive maintenance as allowed in the Maintenance Plan and
	• failures that are the responsibility of other contractors and Third-Party Service Provider and Business Partners as determined by the Agencies.

1.6.2 Chargeable Failures

8	Chargeable failures shall include any failures not specifically identified as non-chargeable.

1.7 Performance Reporting

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

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

Exhibit B

Attachments

ATTACHMENTS

Attachment A: OCTA/RCTC Building Layouts

Attachment B: BOS Network and Server Room Layout

Attachment C: Equipment List

Attachment D: CTOC Technical Specifications for Interagency Data Exchange

Attachment E: Estimated Volumes

Attachment F: Sample OCTA/RCTC Reports

Attachment G: Sample KPI Calculations

Attachment A: OCTA/RCTC Building Layouts
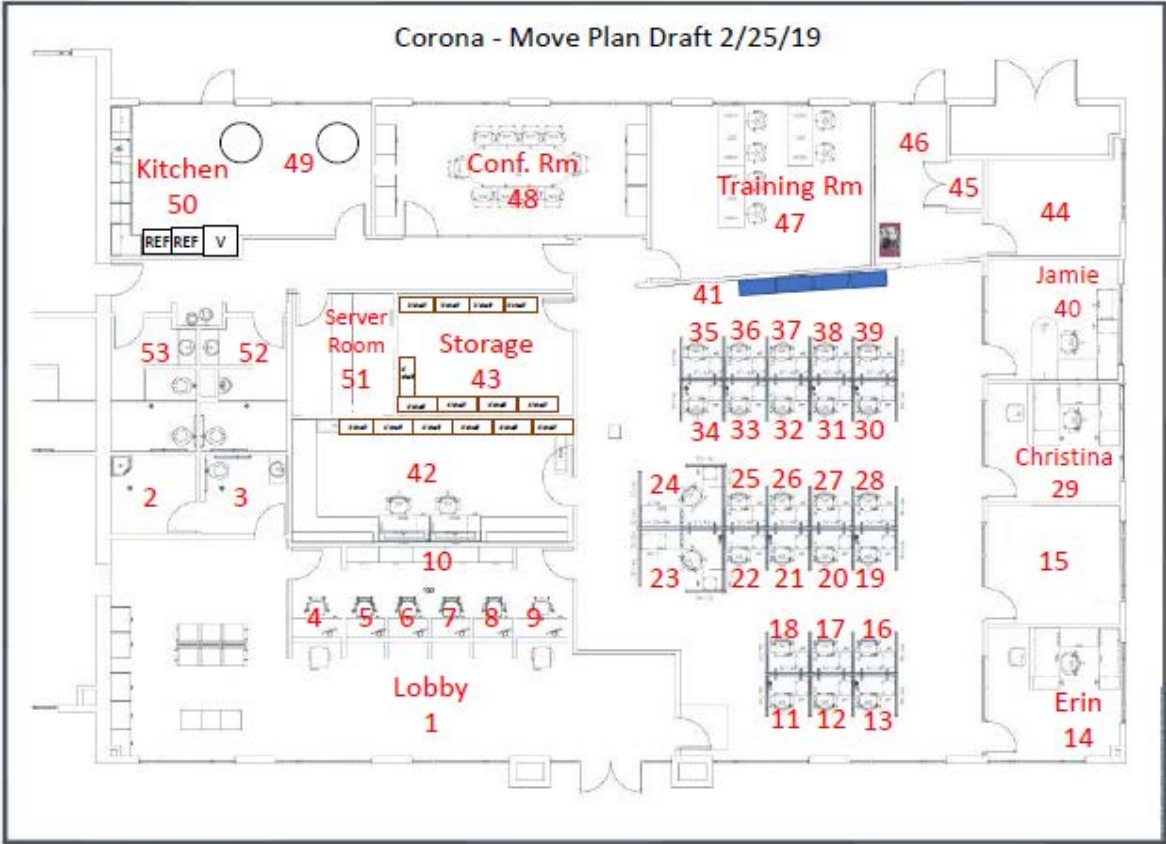
Corona - Move Plan Draft 2/25/19

Anaheim Facility

OFFICE/CUBICLE NUMBERING

02-09-2017

Layout - NOT exact representation.
To be used for office/cubicle numbering reference only.

Anaheim Facility

OFFICE/CUBICLE NUMBERING
02-09-2017
Layout - NOT exact representation.
To be used for office/cubicle numbering reference only.

Attachment B: BOS Network and Server Room Layout

91 Express Lanes Network Diagram
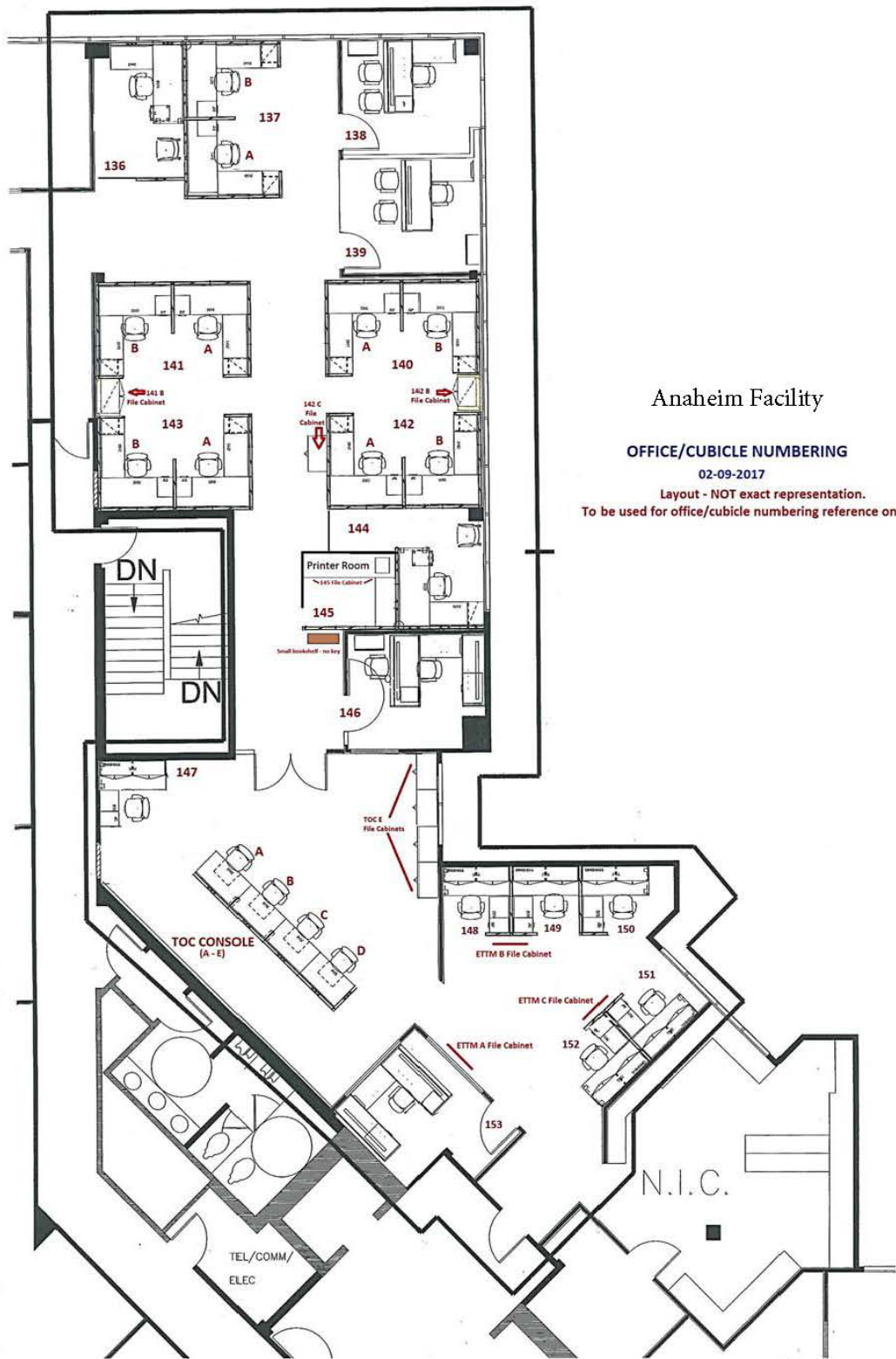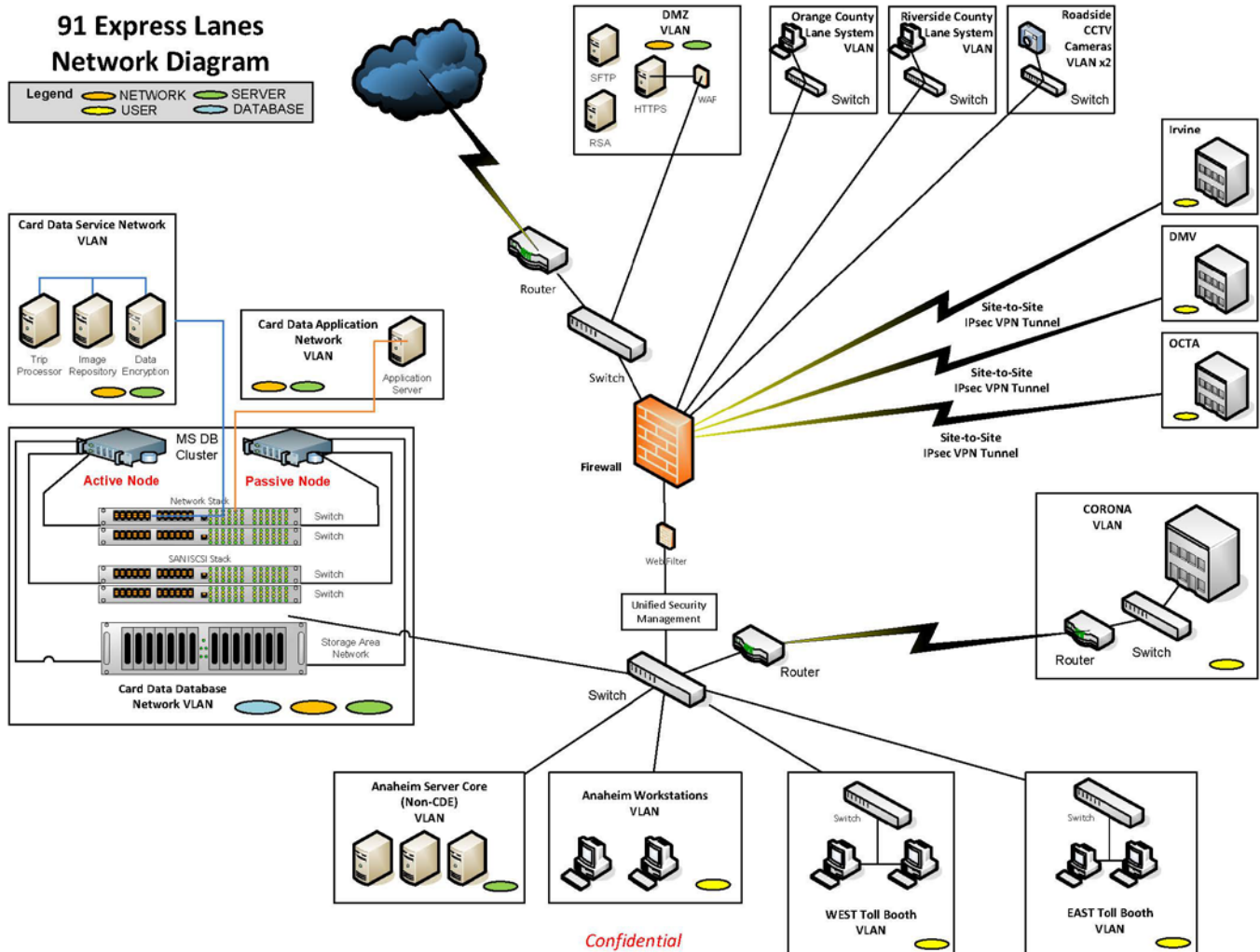
Note:
1. The diagram reflects the current network layout. Changes in ETTM System Contractors and/or interoperability processes may occur in the future.

2. ETTM System Contractor has a separate ISP and security hardware that would not be the Contractor's responsibility, but need to be considered in determining power, heating, access, and operations of the room.

Figure B-1: 91 Express Lanes Network Diagram
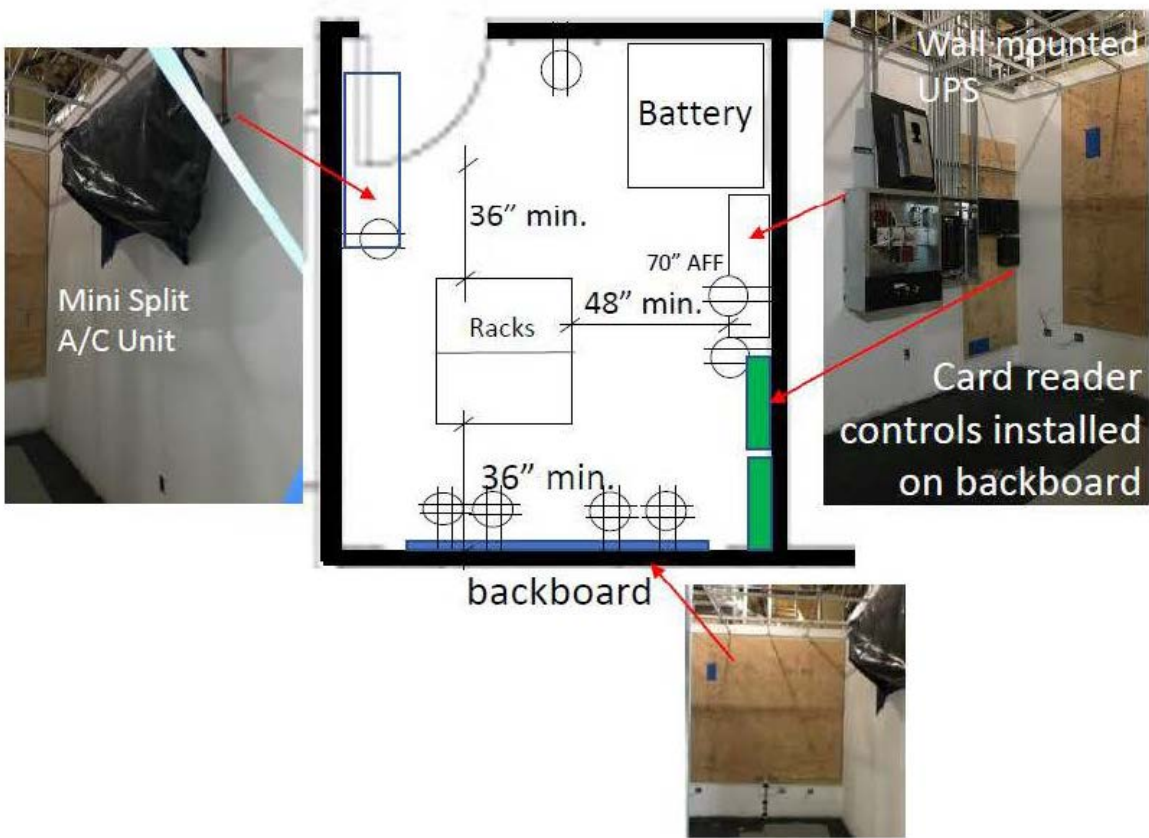
Figure B-2: Server Room Layout
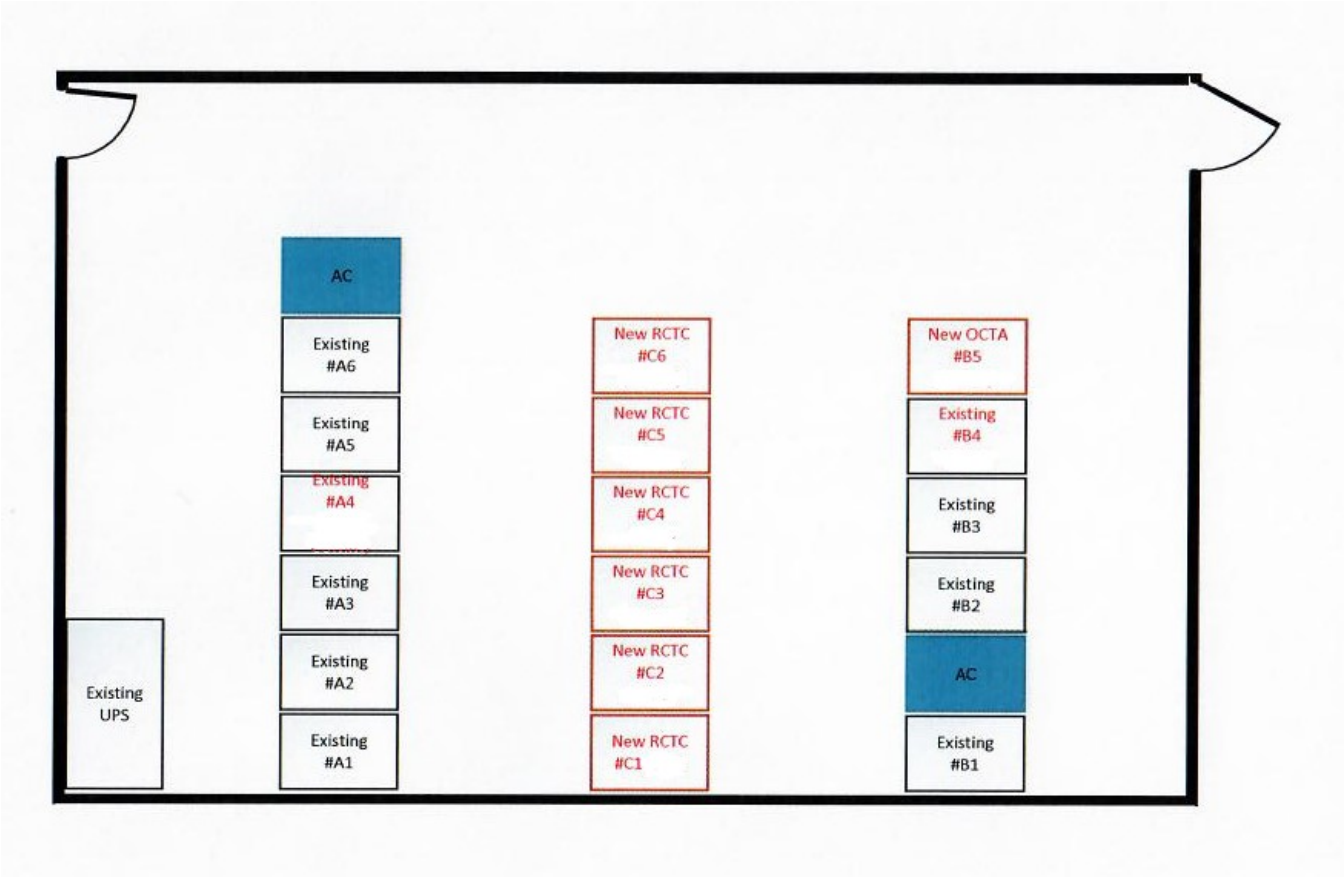
Figure B-3: ADC Rack Layout (12/15/15)

Attachment C: Equipment Lists

Table C-1: Servers

| Location	Primary Group	Server Name	Description	Comments	System Use	Vendor	Model	Service Tag or Product # & S/N	Ship Date	Warr Exp.	Recommendations
Anaheim	NAS	diskstation01	20.0TB Synology NAS	Production NAS	General	Synology	DS1513+	1410LNN001485	7/1/2014	7/1/2015	Vendor discretion to maintain or replace
Anaheim	BACKUP	svrTAPEBACKUP	Backup	Production - Tape Backup	Backup	HP	ProLiant DL380p G8	Prod# 734790-S01 S/N: 2M242200VV	6/26/2014	6/26/2019	Vendor discretion to maintain or replace
Anaheim	BACKUP		Tape Backup Library	Production Tape Backup	System Backup	Quantum	Scalar i80	P/N: 3-05281-01 E S/N: D1H0182411	7/2/2014	3/31/2020	Vendor discretion to maintain or replace
Anaheim	BACKUP		Tape Backup Library	Production Tape Backup	System Backup	Quantum	Scalar i3	P/N: 3-07350-01 Rev: E S/N: F5C1652034	6/23/2017	6/20/2020	Vendor discretion to maintain or replace
Anaheim	SFB	svrLYRP01	Lync Server - Windows 2012 R2	Lync Reverse Proxy	Lync	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ51508PQ	6/28/2015	4/17/2019	Vendor discretion to maintain or replace
Anaheim	SFB	svrLYED01	Lync Server - Windows 2012 R2	Lync Edge Server	Lync	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ51508PS	6/28/2015	4/17/2019	Vendor discretion to maintain or replace
Anaheim	UTIL	SVRSQL01	SQL Server 2005	EOL - ePolicy	SQL	HP	ProLiant DL365 G1	Prod# 411377-B21 S/N: USE737N3F2	9/12/2007	11/19/2011	Vendor discretion to maintain or replace
Anaheim	DMZ	svrwww02	DMZ	Production - Hyper-V host with 3 Win 2012 R2 guests	WEB - DMZ	HP	ProLiant DL360 G8	Prod# 670633-S01 S/N: MXQ41101X3	4/25/2014	4/17/2019	Vendor discretion to maintain or replace
Anaheim	DMZ	svrwww01	DMZ Guest1=www (Prod) Guest2= www(Test) Guest3= FTP(Prod)	Production - Hyper-V host with 3 Win 2008 R2 guests	WEB - DMZ	HP	ProLiant DL360 G8	Prod# 670633-S01 S/N: MXQ32304FP	6/19/2013	7/4/2019	Vendor discretion to maintain or replace
Anaheim	UTIL	SVRAV01	ePolicy / ReadyKey Server	NO MAINT. - EOL - Replace with VM vsvrAV01	General	HP	ProLiant DL385 G2	Prod# 414109-B21 S/N: USE711N9D6	3/19/2007	4/17/2012	Vendor discretion to maintain or replace
Anaheim	UTIL	svrLANG	GFI LanGuard - Chad production server	RAMS Production - Database cluster	General	HP	ProLiant DL360 G6	Prod# 470065-152 S/N: MXQ93601WA	2/2/2010	10/30/2016	Vendor discretion to maintain or replace
Anaheim	SFB	SR91-NIMBLE1	SAN Controller and Disk Enclosure	Production - Lync / VMware / Exchange	Lync	Nimble Storage	CS300-2P-24T-1200F	AF-124325	6/29/2015	7/2/2019	Vendor discretion to maintain or replace
Anaheim	SFB	svmhost3	Lync Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC	Lync	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ452053T	6/28/2015	6/17/2019	Vendor discretion to maintain or replace
Anaheim	SFB	svmhost2	Lync Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC	Lync	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ5140677	6/28/2015	6/17/2019	Vendor discretion to maintain or replace
Anaheim	SFB	svmhost1	Lync Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC	Lync	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ45202PN	6/28/2015	6/17/2019	Vendor discretion to maintain or replace
Anaheim	SFB	svrmail01	Exchange 2013	Exchange 2013	Email	HP	ProLiant DL360 G9	Prod# 780021-B21 S/N: MXQ51705V3	6/28/2015	4/17/2019	Vendor discretion to maintain or replace

Location	Primary Group	Server Name	Description	Comments	System Use	Vendor	Model	Service Tag or Product # & S/N	Ship Date	Warr Exp.	Recommendations
Anaheim	UTIL	svrADC03	Windows 2008 R2 Domain controller / DNS	Production - AD, DNS Win2K8R2	General	HP	ProLiant DL360 G9	Prod# 780017-B21 S/N: MXQ55103W2	2/5/2016	1/28/2020	**Vendor discretion to maintain or replace**
Anaheim	SFB		AudioCode Mediant 1000B	Production - SFB (CorpInfo)	Lync	CorpInfo			9/1/2016		**Vendor discretion to maintain or replace**
Anaheim	SFB		MP-124 VOIP Galaxy	Production - SFB (CorpInfo)	Lync	CorpInfo			9/1/2016		**Vendor discretion to maintain or replace**
Anaheim	SFB	svrLYi3MD01	i3 EDGE MEDIA PROCESSING SERVER	Production - SFB (IAS)	Lync	IAS			9/1/2016		**Vendor discretion to maintain or replace**
Anaheim	RAMS	SR91-NIMBLE2	SAN Controller and Disk Enclosure	Production - RAMS 5.0 / VMware	General	Nimble Storage	CS300-2P-36T-3200F	AF-128411	2/29/2016	3/3/2021	**Vendor discretion to maintain or replace**
Anaheim	RAMS	sramzcs2	RAMS Server - SQL 2014	RAMS 5.0 SQL Server		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ6030335	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	sramzcs1	RAMS Server - SQL 2014	RAMS 5.0 SQL Server		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ603032R	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	sramsAPP2	RAMS Server - SQL 2014	RAMS 5.0 Report Server		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ6030337	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	sramsDB2	RAMS Server - SQL 2014	RAMS 5.0 Test Database		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ603032L	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	svmhost6	RAMS Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ60302ZK	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	svmhost5	RAMS Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ6030348	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	RAMS	svmhost4	RAMS Server - VMware Host	Production - VMware 6.0 and Win2012R2 DC		HP	ProLiant DL380 G9	Prod# 800073-S01 S/N: MXQ60302ZB	1/22/2016	2/20/2020	**Vendor discretion to maintain or replace**
Anaheim	UTIL	ANANAS01	30TB Synology NAS	Production NAS	General	Synology	RS2416RP+	1640NCN338600	7/6/2016	7/6/2019	**Vendor discretion to maintain or replace**
Anaheim	RAMS	RAMSNAS01	48TB Synology NAS	Production NAS	General	Synology	RS2416RP+	1730NCN560900	9/5/2017	9/5/2020	**Vendor discretion to maintain or replace**
Anaheim	UTIL	SR91-NIMBLE3	SAN Controller and Disk Enclosure	Production - Utility / VMware	General	Nimble Storage	C1K-2P-21T-D	AF-180907	4/12/2018	4/16/2021	**Vendor discretion to maintain or replace**
Anaheim	UTIL	svmhost9	Server - VMware Host	Production - VMware 6.0 and Win2016 DC	General	HP	ProLiant DL360 G10	Prod# 867959-B21 S/N: MXQ81106RN	3/26/2018	5/21/2021	**Vendor discretion to maintain or replace**
Anaheim	UTIL	svmhost8	Server - VMware Host	Production - VMware 6.0 and Win2016 DC	General	HP	ProLiant DL360 G10	Prod# 867959-B21 S/N: MXQ81106RM	3/26/2018	5/21/2021	**Vendor discretion to maintain or replace**

Location	Primary Group	Server Name	Description	Comments	System Use	Vendor	Model	Service Tag or Product # & S/N	Ship Date	Warr Exp.	Recommendations
Anaheim	UTIL	svmhost7	Server - VMware Host	Production - VMware 6.0 and Win2016 DC	General	HP	ProLiant DL360 G10	Prod# 867959-B21 S/N: MXQ81106RP	3/26/2018	5/21/2021	**Vendor discretion to maintain or replace**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV		Christie VWC		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV	NVR-02	NVR-02		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV	NVR-01	NVR-01		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Anaheim	CCTV	ATMS-01	ATMS-01		CCTV				6/1/2016		**Reuse & Assume Maintenance**
Corona	UTIL		18TB Synology NAS	Corona Production NAS	General	Synology	RS815RP+	1650MSN005801	1/27/2017	1/27/2020	**Vendor discretion to maintain or replace**
Corona	SFB	svrLYi3MD02	i3 EDGE MEDIA PROCESSING SERVER	Production - SFB (IAS)	Lync	IAS			9/1/2016		**Vendor discretion to maintain or replace**
Corona	SFB	svrLYi302	ININ (i3) Application Server	Production - Win 2012 R2	Phones	HP	ProLiant DL360 G9	Prod# 800079-S01 S/N: MXQ6250311	7/15/2016	7/10/2019	**Vendor discretion to maintain or replace**
Corona	SFB		AudioCode Mediant 1000B	Production - SFB (CorpInfo)	Lync	CorpInfo			9/1/2016		**Vendor discretion to maintain or replace**
Corona	SFB		MP-124 VOIP Galaxy	Production - SFB (CorpInfo)	Lync	CorpInfo			9/1/2016		**Vendor discretion to maintain or replace**
Corona	UTIL	vsvradccsc	Windows 2012 Domain controller / DNS	Production - Corona Domain Controller	General	DELL	PowerEdge R430 Server	271R382	2/1/2016		**Vendor discretion to maintain or replace**
Corona	UTIL	svrcscdata	Windows 2012 File Storage Server	Production - File Printer Server	General	DELL	PowerEdge R430 Server	271Q382	2/1/2016		**Vendor discretion to maintain or replace**

Table C-2: Network Equipment

Location	Item	Equip Name	Description	Comments	Vendor	Model	Serial #	Ship Date	Warr Exp.	Recommendations
Anaheim	Switch	ana-svr-sw01	Catalyst 4948 48 Port		Cisco	WS-C4948-S	FOX1347H69B	2/16/2010	8/20/2016	**Vendor discretion to maintain or replace**
Anaheim	Switch	ana-sw06	Catalyst 3750 24 Port		Cisco	WS-C3750G-24PS-E	FOC1118Y0QQ	6/27/2007	1/10/2014	**Vendor discretion to maintain or replace**
Anaheim	Switch	91EL-CORE-02	Catalyst 4507R+E Chassis		Cisco	WS-C4507R+E	SFXS1939Q3EV	2/11/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch	91EL-CORE-01	Catalyst 4507R+E Chassis		Cisco	WS-C4507R+E	SFXS1946Q0KJ	2/11/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Firewall	91EL-ASA-02	ASA5545 Firewall		Cisco	ASA5545-FPWR-K9	SFTX2007109D	2/11/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Firewall	91EL-ASA-01	ASA5545 Firewall		Cisco	ASA5545-FPWR-K9	SFTX200710ES	2/11/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L60X	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45V+E=	SCAT2005L2FU	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L5VS	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45-E=	SCAT2004L5ZZ	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	30PWS-X4748-RJ45-E	SCAT2004L5S1	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Line card		Line Card for Catalyst 4507R+E Chassis		Cisco	1PWS-X4748-RJ45V+E=	SCAT2005L2KY	6/30/2016	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3650 12 Port	Switch for CMS Signs	Cisco	WS-C3850-12S-S	SFCW2049C0JQ	5/2/2017	6/11/2022	**Vendor discretion to maintain or replace**
Anaheim	Web Filter		Web Security Gateway 810		Barracuda Networks	BYF810A33	BAR-YF-926397	6/5/2017	12/21/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3650 24 Port	Barracuda WSG 810 to both ASA5545	Cisco	WS-C3650-24TS-S	SFDO2143V1MX	3/15/2018	3/13/2021	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3560 24 Port TS	OCTA - ETTM	Cisco	WS-C3560G-24TS-S	FOC1417Y20Q	6/1/2010		**Vendor discretion to maintain or replace**
Anaheim	Network Time Server		Tempus LX CDMA		EndRun Technologies	3014-0001-000	08040018	4/24/2008	4/24/2011	**Vendor discretion to maintain or replace**
Anaheim	Switch	pub-sw02	Catalyst 3650 24 Port	Public network switch	Cisco	WS-C3650-24TD-S	FDO1936E0P4	2/4/2016	2/1/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch	pub-sw01	Catalyst 3650 24 Port	Public network switch	Cisco	WS-C3650-24TD-S	FDO1936E0NS	2/4/2016	2/1/2020	**Vendor discretion to maintain or replace**
Anaheim	Router	ana2cscRTR	4300 Router ANA to CSC		Cisco	ISR4331/K9	FDO1846A057	2/11/2015	2/12/2020	**Vendor discretion to maintain or replace**
Anaheim	Router	MISCAL01	1900 Router AT&T Managed Internet	Property of AT&T Asset #: T1807890	Cisco	XDC1921Y	FTX1901807J	4/16/2015		**Vendor discretion to maintain or replace**
Anaheim			US Robotics	Property of AT&T Asset #: T1807890				4/16/2015		**Vendor discretion to maintain or replace**
Anaheim	WAF		Fortinet FORTIWEB-1000D		Fortinet	FWB-1000D	FV-1KD3A14800322	2/24/2015	6/11/2021	**Vendor discretion to maintain or replace**
Anaheim	Unified Security Management		Alienvault Unified Security Management		Alienvault	AIO Standard	325350124015	2/9/2015	2/8/2020	**Vendor discretion to maintain or replace**
Anaheim	Spam Filter		ES5000 Email Appliance	DMZ Email appliance	Sophos	SYS-G-SOP146-000	NNG03164710041	2/28/2017	2/12/2020	**Vendor discretion to maintain or replace**

Location	Item	Equip Name	Description	Comments	Vendor	Model	Serial #	Ship Date	Warr. Exp.	Recommendations
Anaheim	Switch	ana-svr-sw02	Catalyst 4948 48 Port		Cisco	WS-C4948-S	FOX1347G638	2/16/2010	8/20/2016	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (Lync)	Cisco	WS-C3850-48T-E	FOC1917U01U	6/22/2015	6/21/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (Lync)	Cisco	WS-C3850-48T-E	FCW1917C01F	6/22/2015	6/21/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch	ETTM	Catalyst 3650 24 Port	RCTC - ETTM	Cisco	WS-C3650-24TS-S	FDOC1946E2E9			**Vendor discretion to maintain or replace**
Corona	Switch		Catalyst 3560X 48 Port		Cisco	WS-C3560X-48T-S	FDO1708P1VP	6/18/2013	6/21/2020	**Vendor discretion to maintain or replace**
Corona	Switch		Catalyst 3560X 48 Port		Cisco	WS-C3560X-48T-S	FDO1708P1VA	6/18/2013	6/21/2020	**Vendor discretion to maintain or replace**
Corona	Router	csc2anaRTR	4300 Router ANA to CSC		Cisco	ISR4331/K9	FDO1834C007	2/11/2015	2/12/2019	**Vendor discretion to maintain or replace**
Corona	Switch		Catalyst 3650 48 Port		Cisco	1PWS-C3650-48FS-S	SFDO2013Q095	10/10/2016	10/9/2019	**Vendor discretion to maintain or replace**
Corona	Enviroment Monitoring		temp/hum		AVTECH	Room Alert 32E	RA32-FABD41	2/15/2018	2/15/2019	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (RAMS)	Cisco	WS-C3850-48T-E	SFOC2001U0XB	2/23/2016	2/23/2021	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (RAMS)	Cisco	WS-C3850-48T-E	SFOC2001X11C	2/23/2016	2/23/2021	**Vendor discretion to maintain or replace**
Anaheim			Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (UTIL)	Cisco	WS-C3850-48T-E	SFOC2111X1RG	3/29/2018	4/2/2021	**Vendor discretion to maintain or replace**
Anaheim			Catalyst 3850 48 Port	iSCSI switch for Nimble SAN (UTIL)	Cisco	WS-C3850-48T-E	SFCW2126F0KK	3/29/2018	4/2/2021	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	Parsons camera network switch	Cisco	WS-C3850-48T-S	FCW2013C09L	6/6/2016	8/31/2020	**Vendor discretion to maintain or replace**
Anaheim	Switch		Catalyst 3850 48 Port	Parsons camera network switch	Cisco	WS-C3850-48T-S	FCW2013C09U	6/6/2016	8/31/2020	**Vendor discretion to maintain or replace**
Anaheim	VM		FireSIGHT Mangement Virtual Machine		Cisco	FS-VMW-2-SW-K9	7371J23B7E0	7/27/2017	7/26/2020	**Vendor discretion to maintain or replace**
Anaheim	Enviroment Monitoring		temp/hum		Sensaphone	IMS-1001	00:07::F9:00:67:CB	10/29/2014	10/29/2017	**Vendor discretion to maintain or replace**
Corona	Switch		Catalyst 3560X 48 Port POE		Cisco	WS-C3560X-48FS-S	FDO2106E2PE	2/23/2017	2/22/2020	**Vendor discretion to maintain or replace**
TOC	Switch		Catalyst 3650 48 Port SS		Cisco	1PWS-C3650-48TS-S	SFDO2008E156	7/27/2016	7/26/2019	**Vendor discretion to maintain or replace**
TOC	Switch		Catalyst 3650 48 Port TS		Cisco	1PWS-C3650-48FS-S	SFDO2022Q0KX	7/27/2016	7/26/2019	**Vendor discretion to maintain or replace**
TOC	Switch		Catalyst 3650 48 Port SS		Cisco	1PWS-C3650-48FS-S	SFDO1953E0A7	6/21/2016	6/20/2019	**Vendor discretion to maintain or replace**
TOC	Switch		Catalyst 3650 48 Port TS		Cisco	1PWS-C3650-48TS-S	SFDO2007E2U7	6/21/2016	6/20/2019	**Vendor discretion to maintain or replace**

Table C-3: Air Conditioners

Manufacturer ID	Model	Serial	Location	Notes	Recommendations
Liebert Blower **#1**	MM060E-D00L0	0640N136544	AF1-Cold Isle 2	ADC Server Room Suite 199	**Vendor discretion to maintain or replace**
5 TON Liebert Unit **# 1**	PFH067A-YL3	0640N136579	Roof of building	ADC Server Room Suite 200	**Vendor discretion to maintain or replace**
Liebert Blower **#2**	MM060ED00L0	0640N136537	AF2-Cold Isle 1	Above Kerry's Cubicle	**Vendor discretion to maintain or replace**
5 TON Liebert Unit **# 2**	PFH067A-YL3	0640N136443	Roof of building	ADC Server Room Suite 200	**Vendor discretion to maintain or replace**
Liebert CRV-20 Condenser Unit # 1	CR020RA1A7	N10JBM0014	Anaheim ADC	ADC Row B - Rack Type	**Vendor discretion to maintain or replace**
Liebert CRV-20 5 T Minimate blower #1	CRV-20	N10JBM0014	Anaheim ADC	ADC Row B - Rack Type	**Vendor discretion to maintain or replace**
Liebert CRV-20 Condenser Unit # 2	CRV-20	N10JBM0013	Anaheim ADC	ADC Row A - Rack Type	**Vendor discretion to maintain or replace**
Liebert CRV-20 5 T Minimate blower #2		N10JBM0013	Anaheim ADC	ADC Row A - Rack Type	**Vendor discretion to maintain or replace**
ICP International Comfort Products	N4H460GKG101	E164405664	Anaheim TOC & TOC Closet	TOC and TOC closet	**Vendor discretion to maintain or replace**
ICP International Comfort Products	FEM4X600BL	A171885453	Roof of building	TOC and TOC closet	**Vendor discretion to maintain or replace**
NA	NA	NA	Corona Server Room	New Unit in CSC	**Vendor discretion to maintain or replace**

Table C-4: UPS and Generator

location	Item	Description	Vendor	Model	Serial #	LocGroup	Ship Date	Warr Exp.	Recommendations	Comments
Anaheim	Anaheim Generator	Anaheim Generator	Olympian Caterpillar	95A02612-S	2020969		NA	NA	**Vendor discretion to maintain or replace**	Expected to be replaced
Anaheim	Uninterruptible Power Supply	Anaheim A Power UPS	Ferrups	FE18KVA	BJ512FN0127	ADC	NA	NA	**Vendor discretion to maintain or replace**	
Anaheim	18KVA Uninterruptible Power Supply	Anaheim B Power UPS	Powerware	Powerware Model 9170 18KVA	173T011 / Ka103Q0232	TOC Data closet	NA	NA	**Vendor discretion to maintain or replace**	
Corona CSC	Uninterruptible Power Supply	UPS	GE	UPS LP33	UBS302LP2242100	CSC Data Closet	3/2019	3/2021	**Vendor discretion to maintain or replace**	Installed 3/2019
Corona CSC	Generator	Corona Generator	NA	NA	NA		NA	NA	**Vendor discretion to maintain or replace**	TBD

Table C-5: Security and Fire Systems

location	Item	Description	Vendor	Model	Serial #	Ship Date	Warr Exp.	Recommendations	Comments
Anaheim/TOC Closet	DPSI Fire Suppression System	Fire Suppression System	DPSI	10014421		NA	NA	**Vendor discretion to maintain or replace**	1 Inergen Tank
Anaheim ADC	DPSI Fire Suppression System	Fire Suppression System				NA	NA	**Vendor discretion to maintain or replace**	6 Inergen Tanks
Anaheim	Badge System	Badge System			NA	NA	NA	**Vendor discretion to maintain or replace**	
Anaheim	Alarm System	Panel Type 5800+	Honeywell	Panel Type 5800+	NA	NA	NA	**Vendor discretion to maintain or replace**	Installed 10/2012
Anaheim	CCTV System				NA	NA	NA	**Vendor discretion to maintain or replace**	Cameras and Software
Corona CSC	Badge System	Badge System	Kantech	Kantech 300/400	NA	NA	NA	**Vendor discretion to maintain or replace**	Installed 3/2019
Corona CSC	Alarm System				NA	NA	NA	**Vendor discretion to maintain or replace**	Installed 3/2019
Corona CSC	CCTV System				NA	NA	NA	**Vendor discretion to maintain or replace**	Installed 3/2019
Corona CSC	Vela Desktop RFID Reader	6C Transponder Desktop Reader	Star Systems		NA	NA	NA	**Vendor discretion to maintain or replace**	

Table C-6: Miscellaneous Equipment

location	Item	Description	Vendor	Model	Serial #	LocGroup	Ship Date	Warr Exp.	Recommendations	Comments
Corona CSC	Vela Desktop RFID Reader	6C Transponder Desktop Reader	Star Systems				NA	NA	**Vendor discretion to maintain or replace**	
Corona CSC	T21 Desktop Transponder Reader			Identitiy 5200	ID52000023,28,				**Vendor discretion to maintain or replace**	3 Units

Table C-7: Anaheim Server Room Rack - ADC A

AC	A6 RU	F/B	A6	A5 RU	F/B	A5	A4 RU	F/B	#	A4	A3 RU	F/B	A3	A2 RU	F/B	A2	A1 RU	F/B	A1
CRAC-2	44			44			44		1	FDU Connector Housing for 72 connectors	44	B/F	(B) Pulizzi / (F) Patch 1-12	44	B	Pulizzi	44	F	Flexlight 2000 Panel Splice
Cold Isle 2				43	B	Eaton PDU	43		2	Corning Patch Panel (PCH-04U)	43	F	Patch 13-24	43	B/F	(B) Pulizzi / (F) AMP NetConnect	43	F	
Liebert - CRV	42	F	XFMR (transformer to the SMART UPS RT 3000)	42	B	Eaton PDU	42		3	Six 12 Port SC FDU Panels (CCH-CP12-59)	42			42	F	AMP Net Connect (starts on RU 43)	42	F	
	41	F		41	B	CordHolder	41		4		41	F	Patch 25-48	41	F	1B4-1 Patch Panel	41	F	
	40	F	SMART UPS RT 3000	40	B		40		5		40	F		40	F	1B4-2 Patch Panel	40	F	
	39	F		39	B	Shelf holding svrVMS modem	39	F		PDU (New Instock Easton - OCTA Asset)	39	F	Patch 49-72	39	F	Cable Management	39	F	
	38	F		38			38				38	F		38	F	2B4-1 Patch Panel	38	F	
	37			37			37	F		Firewall-A (5545-IPS-K9)	37			37	F	2B4-2 Patch Panel	37	F	
	36	F	Pulizzi	36			36	F		Firewall-B (5545-IPS-K9)	36	F	Patch 73-96	36	F	Cable Management	36	F	
	35	F	Pulizzi	35	F	Cisco 3650 - Barracuda Failover	35				35	F		35	F	1B3-1 Patch Panel	35	F	
	34			34			34				34	F	Patch 97-120	34	F	1B3-2 Patch Panel	34	F	
	33	F	US Robotics - sitting on router	33	F	Barracuda Web Filter 810	33				33	F		33	F	Cable Management	33	F	
	32	F	Cisco 1900 - AT&T Router Host: MISCAL01	32	F		32		1		32			32	F	2B3-1 Patch Panel	32	F	
	31	F	ana2cscRTR - cisco 4300	31			31		2	Cisco 4507r+e Chassis (1)	31			31	F	2B3-2 Patch Panel	31	F	
	30			30			30		3	91EL-CORE-01	30	F	ANA-SW06 - POE 3750G	30	F	Cable Management	30	F	

29	F	PUB-SW01	29			29	4		29			29	F	1B2-1 Patch Panel	29	F
28	F	PUB-SW02	28			28	5		28	F	ANA-SVR-SW01 (A4 F 25)	28	F	1B2-2 Patch Panel	28	F
27			27	F	OCTA CMS Switch Cisco 3850-NM-Blank	27	6		27			27	F	Cable Management	27	F
26			26			26	7		26	F	Nortel	26		2B2-1 Patch Panel	26	F
25	F	Eaton PDU	25			25	8		25	F	Nortel	25		2B2-2 Patch Panel	25	F
24			24			24	9		24	F	MG1000	24	B/F	(B) Pulizzi / (F) Cable Management	24	F
23	F	End Run Time Server	23			23	10		23	F		23	B/F	(B) Pulizzi / (F) B1-1 Patch Panel	23	F
22	F	Eaton PDU	22			22	11		22	F		22	F	B1-2 Patch Panel	22	F
21			21	F	Keyboard / Monitor	21	1		21	F		21	F	Cable Management	21	F
20	F	Keyboard / Monitor	20	F	Eaton Power ETTM	20	2		20	F		20	F	1B5-1 / 1B5-2 Patch Panel	20	F
19	F		19			19	3		19	F	MG1000	19	F	Cable Management	19	F
18			18	F	ETMNAS1 - Synology 18TB NAS	18	4	1 FDU LC for TOC switches	18	F		18	F	1C1-1 / 1C1-2 Patch Panel	18	F
17	F	Quantum Scalar i80	17	F	TZCSP	17	5		17	F		17	B/F	(B) Shelf w/ (F) Cable Management	17	F
16	F		16	F		16	6		16	F		16	B/F	(B) 3 CPTC Loop (F) 1C2-1 / 1C2-2 Patch Panel	16	F
15	F		15	F	TZC	15	7		15	F		15	F	Cable Management	15	
14	F		14	F		14	1		14	F	Netpath Teltronics	14	F	1C3-1 / 1C3-2 Patch Panel	14	
13	F		13	F	SAN	13	2	Cisco 4507r+e Chassis (2)	13			13	F	Cable Management	13	

12　F	12　F	12　　3　91EL-CORE-02	12	12　F	1C4-1 / 1C4-2 Patch Panel	12
11　F　　svrTapeBackup	11　F　　MOMs	11　　4	11	11　F　　Cable Management		11
10　F	10	10　　5	10	10　F	1C5-1 / 1C5-2 Patch Panel	10
9　F　　Quantum Scalar i3	9　F　　Powervault	9　　6	9	9　F　　Cable Management		9
8　F	8　F	8　　7	8	8　F	1C6-1 / 1C6-2 Patch Panel	8
7　F	7　F　　TZCTest	7　　8	7	7　F　　Cable Management		7
6	6　F	6　　9	6	6		6
5	5　B　OCTA ETTM - Cisco Catalyst 3560 24 Port	5　　10	5	5		5
4	4	4　　11	4	4		4
3	3	3	3	3		3　Freestanding - IMXL3260S1Z
2	2	2	2	2		2　DataLink DL50	Phone
1	1	1	1　Freestanding - Synology	1		1　Freestanding - UDS

Table H- 8: Anaheim Server Room Rack - ADC B

F/B	B1	AC	F/B	B2	F/B	B3	F/B	B4	F/B	B5
42 B	AMP Net Connect	AC	42 B	1B2-1 Patch Panel	42 B	1B3-1 Patch Panel	42 B	1B4-1 Patch Panel	42 B	1B5-1 Patch Panel (1-24)
41 B	(Fiber patch from A to B)		41 B	1B2-2 Patch Panel	41 B	1B3-2 Patch Panel	41 B	1B4-2 Patch Panel	41 B	1B5-2 Patch Panel (25-48)
40 B	B1-1 Patch Panel		40		40		40		40 B	Eaton PDU (A Power)
39 B	B1-2 Patch Panel		39		39		39		39 B	Eaton PDU (B Power)
38			38		38		38		38	
37			37		37		37		37 B	OCTA CMS Theia Server Superlogics
36 B	ANA-SVR-SW02		36		36		36		36	
35			35		35		35 B		35	
34 F	svrAV01		34		34		34 B	Shelf	34	
33 F			33		33		33 B		33	
32 F			32		32		32 B	2U Cable Management Nane Point	32 B	
31			31		31		31 B	GE INTERLOGIX KALATEL KTS-250-16	31 B	Shelf CYCUION FIB1-10/100w/sc60bf
30 F	svrwww01 (DMZ)		30		30		30 B	(MON OUTPUTS 1-16)	30 B	
29 F	svrwww02 (DMZ)		29		29		29 B	GE INTERLOGIX KALATEL KTS-250-16	29 B	AVOCENT ESP-16 MI (3X) (CAMS1-16 / CAMS17-32 / CAMS33-48)
28			28		28		28 B	(MON OUTPUTS 17-32)	28 B	
27 F	svrSQL01		27 B	san-switch-01	27 B	Media Server svrLYi3MD01 (Lync Project)	27 B	GE INTERLOGIX KALATEL KTS-250-16	27 B	
26 F	Edge Server (Lync Project) svrLYED01		26 B	san-switch-02	26 B	MP-124 VOIP Galaxy (Lync Project)	26 B	(MON OUTPUTS 33-48)	26 B	
25 F	Reverse Proxy Server (Lync Project) svrLYRP01		25 F	sramsapp1	25 B	AudioCode Mediant 1000B (Lync Project)	25		25	
24			24 F	sramsvm3	24 B		24		24	
23			23 F	sramsvm2	23 F	svrADC03 (Physical Domain Controller)	23 B	Axis P7216CH-01	23 B	Eaton PDU (A Power)
22 F	SOPHOS Email Gateway ES5000		22 F	sramsvm1	22		22		22 B	Eaton PDU (B Power)
21			21 B	2B2-1 Patch Panel	21 B	2B3-1 Patch Panel	21 B	2B4-1 Patch Panel	21	
20			20 B	2B2-2 Patch Panel	20 B	2B3-2 Patch Panel	20 B	2B4-2 Patch Panel	20 B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
19			19 F	svrLANG	19		19		19 B	(7x) VR4930WDM (CAMS1-7)
18			18 F	sramzc1	18 F	Exchange Server (Lync Project) svrmail01	18 B		18 B	

Rack 1			Rack 2			Rack 3			Rack 4			Rack 5		
17			17	F	sramzc2	17	F	svmhost1 (Lync Project)	17	B	Axis Q7920 Chassis	17	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
16			16	F	NETAPP - DS14MK4 - Disk Enclosure	16	F	svmhost2 (Lync Project)	16	B	AXISCH-01	16	B	(7x) VR4930WDM (CAMS8-14)
15			15	F		15	F	svmhost3 (Lync Project)	15	B	B-01-B14	15	B	
14			14	F		14			14	B		14	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
13			13	F	NETAPP - DS14MK4 - Disk Enclosure	13	B	switch - cisco - ws-c3850-48t-e (Lync Project)	13			13	B	(7x) VR4930WDM (CAMS15-21)
12			12	F		12	B	switch - cisco - ws-c3850-48t-e (Lync Project)	12			12	B	
11			11	F		11			11	B		11	B	COMAIR ROTROM MB100-320 (BAY1)
10	F	AVUSM	10	F	NETAPP - DS14MK4 - Disk Enclosure	10	F	NETAPP - SD14MK4 - Disk Enclosure	10	B	Cybermation System	10	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
9			9	F		9	F		9	B		9	B	(7x) VR4930WDM (CAMS22-28)
8	B	FORTIWEB	8	F		8	F		8	B		8	B	
7	B		7	F	NETAPP - DS14MK4 - Disk Enclosure	7	F	NETAPP - SD14MK4 - Disk Enclosure	7	B		7	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
6			6	F		6	F		6	B		6	B	(7x) VR4930WDM (CAMS29-35)
5			5	F		5	F		5			5	B	
4			4	F	NETAPP - FAS2050-SAN Controller/Disk Enclosure	4			4			4	B	IFS CARD CAGE PS-R3 (POWER SUPPLY)/
3			3	F		3	F	NimbleStorage - CS300-2P-24T-1200F	3			3	B	(5x) VR4930WDM / VT7450 (VMS 91 WB / VMS
2			2	F		2	F		2			2	B	55 NB / VMS91 EB)(D12 4-CHANNEL)
1			1	F		1	F		1		Floor AXIS 291	1		

Table H-9: Anaheim Server Room Rack - ADC C

		C1 (SIIC - Toll System Rack)			C2 (SIIC - RAMs 4 Infrastructure)			C3 (SIIC - Communications Rack)			C4 (SIIC - CCTV Rack)			C5 (SIIC - CCTV) OCTA - KAPSCH			C6 (SIIC - CCTV) RCTC - KAPSCH
	F/B			F/B			F/B			F/B			F/B			F/B	
42	B	1C1-1 Patch Panel	42	B	1C2-1 Patch Panel	42	B	1C3-1 Patch Panel	42	B	1C4-1 Patch Panel	42	B	1C5-1 Patch Panel	42	B	1C6-1 Patch Panel
41	B	Cable Management	41	B	Cable Management	41	B	Cable Management	41	B	1C4-2 Patch Panel	41	B	1C5-2 Patch Panel	41	B	1C6-2 Patch Panel
40			40			40			40			40			40		
39			39			39			39		FDU (12 strands MM to A1, 20 strands MM to TOC)	39	B	Robotics	39		
38			38			38			38			38	B	Inlane ISP Cisco Router	38		
37			37			37			37	F	ATMS-01	37			37		
36			36			36			36	F		36	F	Firewall	36		
35			35			35			35	F	NVR-01 (OCTA)	35			35		
34			34			34			34	F		34	F	Switch	34		
33			33	F	RAMSNAS01	33			33	F		33			33		
32			32	F		32			32	F		32	F	IMAGE REVIEW/OCR SERVER 1	32	F	IMAGE REVIEW/OCR SERVER 1
31			31	F	ANANAS01	31			31	F	NVR-02 (RCTC)	31			31		
30			30	F		30			30	F		30	F	IMAGE REVIEW/OCR SERVER 2	30	F	IMAGE REVIEW/OCR SERVER 2
29			29			29			29	F		29			29		
28			28	F	svmhost4	28			28	F		28	F	APP1	28	F	APP1
27			27	F		27			27			27	F		27	F	
26			26	F	svmhost5	26			26			26			26		
25			25	F		25			25	B	Catalyst 3850 48 RC-CCTV-SW01	25	F	DATABASE 1	25	F	DATABASE 1
24			24	F	svmhost6	24			24	B	Catalyst 3850 48 RC-CCTV-SW02	24	F		24	F	
23	F	KVM Tripp-Lite	23	F		23			23			23			23		
22			22			22			22	B	24 port FDU	22	F	APP2	22	F	APP2
21	B	1C1-2 Patch Panel	21	B	1C2-2 Patch Panel	21	B	1C3-2 Patch Panel	21			21	F		21	F	

Rack 1

U	Type	Description
20	B	Cable Management
19		
18		
17	B	Pulizzi Power Controller
16		
15	B	Cisco Catalyst 3650 24 port switch
14		
13	F	TZC1
12	F	
11	F	TZC Spare
10	F	
9	F	MOMs
8	F	SAN - Dell Equallogic PS4210
7	F	
6	F	Dell Powervault TL1000 (Tape Backup)
5		
4		
3		
2		
1		

Rack 2

U	Type	Description
20	B	Cable Management
19	F	SRAMSDB2
18	F	
17	F	SRAMSAPP2
16	F	
15	F	SRAMZCS1
14	F	
13	F	SRAMZCS2
12	F	
11		
10	B	Cisco 3850
9	B	Cisco 3850
8		
7	F	Nimble CS300
6	F	
5	F	
4		
3		
2		
1		

Rack 3

U	Type	Description
20	B	Cable Management
19		
18		
17		
16	F	svmhost 7 (Util VM)
15		
14	F	svmhost8 (Util VM)
13		
12	F	svmhost9 (Util VM)
11		
10	B	Cisco 3850 (Util VM)
9	B	Cisco 3850 (Util VM)
8		
7	F	Nimble CS1000 (Util VM)
6	F	
5	F	
4		
3		
2		
1		

Rack 4

U	Type	Description
20	F	Christie (Video Wall Ctrl)
19		
18	F	Christie (Video Wall Ctrl)
17		
16	F	Christie (Video Wall Ctrl)
15		
14	F	Christie (Video Wall Ctrl)
13		
12	F	Christie (Video Wall Ctrl)
11		
10	F	Christie (Video Wall Ctrl)
9		
8	F	Christie (Video Wall Ctrl)
7		
6	F	Christie (Video Wall Ctrl)
5		
4	F	Christie (Video Wall Ctrl)
3		
2		
1		

Rack 5

U	Type	Description
20		
21	F	DATABASE 2
20	F	
19		
18	F	
15	F	TAPE BACKUP
14	F	
13	F	
12		
11	F	
10	F	DAS1
9	F	
8	F	
7		
6	F	
5	F	DAS2
4	F	
3	F	
2		
1		

Rack 6

U	Type	Description
20		
21	F	DATABASE 2
20	F	
19		
18	F	
15	F	TAPE BACKUP
14	F	
13	F	
12		
11	F	
10	F	DAS1
9	F	
8	F	
7		
6	F	
5	F	DAS2
4	F	
3	F	
2		
1		

Table H-10: Anaheim ETTM Closet

	F/B	TOC 1			F/B	TOC 2
42	F	1U FDU		42		
41	F/B	(F) 1U FDU / (B) PDU		41		
40	B	PDU		40		
39				39		
38				38		
37	F	Sensephone IMS 1000		37		
36				36		
35	F	1 - 24 Patch Panel		35		
34	F	25 - 48 Patch Panel		34		
33	F	1 - 48 New TOC Patch Panel		33		
32	F	49 - 96 New TOC Patch Panel		32		
31	F	New TOC Patch Panel		31		
30	F	Catalyst 3650 48 Port POE Switch		30		
29	F	Catalyst 3650 48 Port Switch		29		
28	F	Catalyst 3650 48 Port POE Switch		28		
27	F	Catalyst 3650 48 Port Switch		27		
26				26		
25				25		
24				24		
23				23		
22				22		
21				21		
20				20		
19				19		
18				18		
17				17		
16				16		
15				15		
14				14		
13				13		
12				12		
11				11		
10				10		
9				9		
8				8		
7				7		
6				6		
5				5		
4				4		
3				3		
2				2		

Table H-11: Corona CSC Relocation Rack

F/B	CSC 1	F/B	CSC 2
42		42	
41		41	
40	1 U 24 Port Patch Panel (01 - 24) [1A-24A]	40	
39	1 U Cable Management	39	
38	Catalyst 3560X 48 Port	38	
37	1 U Cable Management	37	
36	1 U 24 Port Patch Panel (25 - 48) [25A-48A]	36	AVTECH Room Alert 32E - temp sensor
35	1 U Cable Management	35	
34	1 U 24 Port Patch Panel (49 - 72) [49A-72A]	34	Synology 18TB NAS (CSCNAS01)
33	1 U Cable Management	33	1 U Cable Management
32	Catalyst 3650 48 Port	32	File & Print Server (svrcscdata)
31	1 U Cable Management	31	1 U Cable Management
30	1 U 24 Port Patch Panel (73 - 96) [73A-81A; 5-9, 5-11, 5-13, 5-14, 5-15, 5-16]	30	Domain Controller (vsvradccsc)
29	1 U Cable Management	29	1 U Cable Management
28	1 U 24 Port Patch Panel (97 - 120) [1B-24B]	28	
27	1 U Cable Management	27	
26		26	
25	1 U Cable Management	25	
24	1 U 24 Port Patch Panel (121 - 144) [25B-48B]	24	Keyboard / Monitor (KVM)
23	1 U Cable Management	23	
22	1 U 24 Port Patch Panel (145 - 168) [49B-72B]	22	
21	1 U Cable Management	21	IAS Edge (svrLYi3MD02) - SFB
20	**Catalyst 3560X 48 Port**	20	1 U Cable Management
19	1 U Cable Management	19	IAS Application Server (svrLYi302) - SFB
18	1 U 24 Port Patch Panel (169 - 192) [73B-81B; ...]	18	1 U Cable Management
17	1 U Cable Management	17	Corp Info Audio Codes (svrLYSW02) - SFB
16	1 U 24 Port Patch Panel (193 - 216) [TB1 - TB10]	16	1 U Cable Management
15	1 U Cable Management	15	Corp Info MP-124 VOIP Gateway - SFB
14		14	1 U Cable Management
13	1 U Cable Management	13	Catalyst 3750 48 Port PS
12		12	1 U Cable Management
11		11	Cisco 4300 Router (csc-4331-router)
10		10	
9		9	
8		8	DVR DS-7700
7		7	
6		6	

Attachment D: CTOC Technical Specifications for Interagency Data Exchange

Note: The CTOC Technical Specs are currently being modified for the merger of the Western Region. The Contractor should comply with the version provided by the Agencies during design.

CALIFORNIA TOLL OPERATORS COMMITTEE ("CTOC")

Technical Specification

for

Interagency Electronic Data Interchange

Revision G.5.<mark>8</mark>

<mark>Mar 13, 2018</mark>

Table of Contents

1   LIST OF REVISIONS

Rev. A   Initial Release

Rev. B   Adds Good Tags File Layout

Rev. C   Adds Toll Violations File Layout

Rev. D   Adds Statement Descriptions in Appendix E
            Document Reformatted

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

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

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

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

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

Rev. G.1 (FINAL) Final corrections:
        1) Remove DIFF from tag status file header.
        2) Fix sample file for tag status.
        3) Pay-by-Plate Processing Narrative correction.
        4) Reconciled Pay-By-Plate Charges File – fixed Reconcile codes.

Rev. G.2 (FINAL) Corrections:
        1) Change to General File Format Rule #15 regarding transaction uniqueness.
        2) Add General File Format Rule #16 regarding sequence numbering.

Rev. G.3 (FINAL) Corrections:
        1) Remove "optional" from 3 subtypes on Tag Status File. Subtypes must be sent.
        2) Remove the San Diego CALTRANS Bridge (Coronado).

Rev. G.4 (April 26, 2004) Corrections:
        1) Corrected Title 21 tag range assignments to reflect current approved assigned

ranges.

2) Corrected Definition of License Plate field (in License Plate Status File) to read "Alphanumeric" instead of "Alpha".

3) Added the following "Format conforming to DMV Parking Manual" to the description of the License Plate Field.

4) Added "Daily Violation Sweep" Flowchart to Appendix D.

5) Updated "Pay by Certificate" Flowchart in Appendix E.

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

1) Corrected Table of Contents to include page 11, "File Naming Conventions"

2) Updated the "Document Control" to remove Harry Hansen, Jr. and add Joyce Hill as the Document Control contact.

3) Updated the California's Definition for Title 21's 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (February 16, 2010)

4) Record Appendixes as listed in Rev. G.4:
   a) Appendix A: Plaza/Lane Description
   b) Appendix B: Title 21 Definition
   c) Appendix C: Subtype Definitions for Tag Record File
   d) Appendix D: License Plate Date Logic
   e) Appendix E: Violation Enforcement via Plate Reads

5) Appendix A: Added lane and descriptions for TCA (Windy Ridge SB/NB Lane 13, November 3,2009)

6) Appendix A: Added lane and descriptions for I-680 Express lanes

7) Appendix A: Corrected lane and descriptions for SANGAG

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

1) Appendix A: Added lane and description for TCA (Tomato Springs SB/NB Lane 13, 2004).

2) Updated agency name in Table 2, Agency Codes, to add "BATA."

3) Updated the California's Definition for Title 21's 32-BIT Transponder ID number Field to include the current Facility Codes, descriptions for Tag Type and Title 21 Out-of-state Agencies (January 13, 2011)

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

1) Appendix A: Deleted lanes and description for TCA (Portola Parkway North Off Lanes 2248-03, 2248-04 and Portola Parkway North On Lanes 2249-03, 2249-04)

2) Changes:
   a) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.1 Transponder Tag Type ID for HOV Switchable Tags. (March 24, 2011)
   b) Includes Example Tag

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

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

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

Rev. G.4.4. (December 21, 2011) Changes:
1) Added lanes and descriptions for 237 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev. G.4.5. (November 20, 2012) Changes:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 19, September 25, 2012)
2) Added lane and changed descriptions for SANDAG 1-15 to Appendix A: Plaza/Lane Descriptions

Rev. G.4.6. (March 22, 2013) Changes:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 21, March 21, 2013)
    a) Note: Version 20: Newly assigned Facility Codes for TCA; Table 1 & 2.
    b) Version 21: Newly assigned Facility Codes for SR-91; Table 2

Rev. G.4.7 (April 03, 2013) Changes:
1) Added/updated plazas for LA Metro to Appendix A: Plaza/Lane Descriptions

Rev. G.4.8 (November 15, 2013) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 22, October 25, 2013)

Rev. G.4.9 (December 4, 2013) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 23, November 21, 2013)

Rev. G.4.9.a (April 16, 2014) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 24, April 3, 2014)

Rev. G.4.9.b (October 23, 2014) Changes:
1) Updated plazas for TCA to Appendix A: Plaza/Lane Descriptions
    a) Closed: 61 lanes
    b) Added: 4 lane
    c) Name Changes: 6 lanes

Rev. G.4.9.c (November 10, 2014) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 25, November 6, 2014)

Rev. G.4.9.d (November 13, 2014) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 26, November 13, 2014)

Rev. G.4.9.e (May 21, 2015) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
2) Change:
   a) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
   b) 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
3) Add:
   a) APPENDIX A: Plaza/Lane Descriptions
   b) 4001-4009 Reserved for OCTA
   c) 4020-4040 Reserved for RCTC

Rev. G.4.9.f (June 08, 2015) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
2) Deleted "(Pilot Project)" from Section 7.2, Table 1

Rev. G.4.9.g (June 15, 2015) Update:
1) Added "(Multiprotocol Tags)" to Section 7.2, Table 1
2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 2, (Version 29, June 15, 2015)

Rev. G.5 Draft V0 (April 21, 2006) Modifications:
1) Changed "Amount Charged" to "Amount Posted" in TRAN AMOUNT field in Reconciled Toll Charges and Reconciled Pay-by-Plate Charges files
2) Add "Account Identifier" field to tag file
3) Add "Account Identifier" and "Plate Identifier" fields to plate file
4) Eliminate "D" (Delete option) in the Tag File (which should always be INIT only)
5) Added clarifying language about the Daily Violation Database Sweep
6) BATA added to the list of Agency Codes used in filename. BATA will use the code assigned to ATCAS (Caltrans).
7) San Francisco Airport added to list of Agency Codes.

Rev. G.5 Draft V1 (November 21, 2013)   Modifications:
1) Added a Note to the Toll Charges Processing narrative to standardize exclusion of non-revenue plates.
2) Added VERSION to all header files. This field will contain the Version Number, "REVG.5" right justified. This will allow for backward compatibility in the future.
3) Updated Appendix A, adding new I-15 plazas and lanes.
4) Updated Appendix F with new ranges from CALTRANS.
5) Added Entry/Exit Times and Axle Count to toll and Pay-By-Plate transaction files.

Rev G.5 Draft V2 (April 16, 2014) Modifications:
1) Modified Section 4.0 - Item 3 - Added more clarity to Guarantee of payments for valid plates.
2) Modified Section 8.1.1 - Narrative (2nd Paragraph) - clarified note.
3) Modified Section 8.2.2
   a) Removed DST Field

       b) Modified AXLE Count Notes

       c) Added OCCUPANCY Field

4) Modified Section 8.2.4 –

       a) Modified Toll Charges Sample File to include how different Trip Types are included.

5) Added new section 8.2.5 - Business Rules to describe how Entry/Exit Information is included in the Toll Charges File.

6) Modified Section 8.3.2 -

       a) Changed Notes for the first 13 Fields to reflect that it should be same as the original Toll Charges File.

       b) Removed DST Field

       c) Removed INFERRED TAG READ Field.

       d) Added Occupancy Field

7) Modified Section 8.5.1 -

       a) Pay by Plate Narrative - Modified previously modified Paragraph 4.

       b) Removed GENERAL GUIDELINES Section.

8) Modified Section 8.6.2 - Remove DST Flag

9) Added New Section 8.6.5 – Business Rules for Plate Status Files.

10) Modified Section 8.7.2 - Plate Status Detail Record Format

       a) Removed PlateID

       b) Changed Definition of Action Code

       c) Added PLATE TYPE - to differentiate Universal Non-Revenue Plate Accounts.

11) Added New Section 8.7.5 – Business Rules for Plate Status Files.

12) Modified Section 8.8.2 - Reconciled Pay-by-Plate Detail Record Format

       a) Modified Notes for field 1 thru 13 to reflect that it will be same as the PBP Plate Transaction File

       b) Removed DST

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

1) Section 5.2 – Included updated process flow

2) Section 8.3.1 - Reconciled Toll Charge File - Added POST AMT Field

3) Section 8.7.5 – Modified Business Rules section based on comments from the meeting.

4) Section 8.8.2 - Reconciled PBP Charge File - Added POST AMT Field.

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

1) Updated document to include changes made in Rev. G.4.9.a, Rev. G.4.9.b, Rev. G.4.9c and Rev. G.4.9.d.

       a) Updated California's Definition for Tile 21's 32-Bit Transponder Id Number Field, Section 7.0

       b) Updated plazas for TCA to Appendix A: Plaza/Lane Description

2) Revision of the document based on comments

3) Section 5.2 – Included updated process flow

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

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

Rev G.5 Draft V6 (May 1, 2015)
1) Updated 8.2.2 Toll Charges Detail Record Format to add 6C Tag compatibility.
2) Updated 8.3.2 Reconciled Toll Charges Detail Record Format to add 6C Tag compatibility
3) Updated 8.4.2 Tag Status Record Format to add 6C Tag compatibility
4) Added Appendix F – 6C Toll Operators Coalition AVI Transponder Programming Standard (Version 2.0 November 20,2014)

Rev G.5 Draft V7 (June 1, 2015)
1) Updated document to include changes made in Rev. G.4.9.e (May 21, 2015)
   a) Changed 2.0 Document Control: Removed Joyce Hill, added Rick Carrier
   b) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 27, November 13, 2014)
   c) Deleted TCA's CLOSED lanes from the APPENDIX A: Plaza/Lane Descriptions
   d) Added notes to APPENDIX A: Plaza/Lane Descriptions
      i. 4001-4009 Reserved for OCTA
      ii. 4020-4040 Reserved for RCTC
2) Updated Section 8.2.2
   a) Changed Notes for Occupancy field
3) Updated document to include changes made in Rev. G.4.9.f (June 08, 2015)
   a) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.2, Table 1, (Version 28, June 4, 2015)
   b) Deleted "(Pilot Project)" from Section 7.2, Table 1

Rev G.5 Draft V8 (June 15, 2015)
1) Updated document to include changes made in Rev. G.4.9.g (June 15, 2015)
   a) Updated Switchable Transponder Tags Facility Codes, Section 7.2, Table 2 to extend the LA MTA range in T21 CA Transponder ID Ver. 29
   b) Added "(Multiprotocol Tags)" to Section 7.2, Table 1

Rev G.5.1 (October 20, 2015) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 30, October 7, 2015)
2) Updated Appendix F, 6C Programming Standard, Version 2.1

Rev G.5.2 (February 19, 2016) Update:
1) Added/updated plazas for I-580 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.3 (May 5, 2016) Update:
1) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 31, April 20, 2016)
2) Updated Appendix F, 6C Programming Standard, Version 3, rev. 3

Rev G.5.4 (August 17, 2016) Update:
1) Added/updated plazas for 91 Express Lanes to Appendix A: Plaza/Lane Descriptions

Rev G.5.5 (December 27, 2016) Update:
1) Added field justification clarification for the ACCOUNT ID field in the Tag Status Detail Record table (section 8.4.2) and the Plate Status Detail Record table (section 8.7.2)
2) Updated the sample file examples in sections 8.2.4, 8.3.4, 8.4.4, 8.6.4, 8.7.4, and 8.8.4.
3) Added ATI information section 9 to separate ATI files from CTOC files
4) Updated I-580 lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.5.a (Mar 9, 2017) Update:
1) Updated SANDAG Express Lanes in Appendix A: Plaza/Lane Descriptions

Rev G.5.6 (Oct 13, 2017) Update:
1) Section 3 – Changed the reference to Senate Bill 1523 to Streets and Highways Code
2) Updated California's Definition for Title 21's 32-Bit Transponder Id Number Field, Section 7.0. (Version 32, September 26, 2017)
3) Section 8.2.2 - Added Vehicle Type to the Toll Charges Detail Record
4) Modified section 8.4.2 - Tag Status Detail Record
   a. Removed *"D – deactivate tag"*
   b. Added clean air vehicles to Subtype B
5) Section 8.6.2 – Added Vehicle Type to the Pay by Plate Detail Record
6) Section 8.7.2 – Added a Subtype for clean air vehicles to the Plate Status Detail Record
7) Deleted Section 9, ATI Processing
8) Updated I-680 Express Lanes in Appendix A: Plaza/Lane Descriptions
9) Updated notes in APPENDIX A: Plaza/Lane Descriptions
   a. 4020-4399 Reserved for RCTC
10) Deleted Subtypes "L", "S", "B", and "R" from APPENDIX C: Sub Type Definitions

Rev G.5.7 (Jan 24, 2018) Update:
1) Removed ATI File extensions in table 1
2) Fixed version typos throughout section 8

Rev G.5.8 (Mar 13, 2018) Update:
1) Section 6 – Added Correction File and Reconciled Correction File to table 1
2) Section 8 – Added TRAN FEE and TRAN FEE TYPE to the Toll Charges file, and the Reconciled Toll Charges file.
3) Section 8 – Added sections for Correction File and Reconciled Correction File processing

2   DOCUMENT CONTROL

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

Rick Carrier
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Archival of this document will be at:

Transportation Corridor Agencies 125 Pacifica
Irvine, CA 92618

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

3   GOAL

The members of the California Toll Operators Committee acknowledge that one of their goals is to offer interoperability to their customers including the ability to offer a single account statement to each customer setting forth their transaction activities on all participating facilities. In addition, and in accordance with California Streets and Highways Code, Section 27565, the CTOC agencies will ensure that, for purposes of toll collection, the vehicle owner shall not be required to purchase or install more than one transponder device to use on all participating toll facilities.

Acquiring Agency	The owner/operator of the facilities at which a transaction occurred.
AVI	Automatic Vehicle Identification
CHP	California Highway Patrol – State law enforcement agency charged with enforcing the California Vehicle Code.
Facility Code	A number within a range of numbers assigned by CALTRANS to the Issuing Agency, which is programmed into the transponder for automatic identification purposes.
Issuing Agency	The entity that establishes the account and issues the transponders.
Lane Controller	Device which records data read from a transponder by overhead antennas, reads light curtains to provide for vehicle separation, treadles to determine axle count, and can control gates or barriers if the proper toll is paid via AVI or deposit of coins.
Plate	License plate of a vehicle; captured by violation enforcement system (VES) if present.
Reciprocating Agency	Any agency with which the Issuing Agency has a User Fee Processing Agreement.
Tag ID	A number ranging from 0 to 1023 associated with a single facility code that further uniquely identifies a transponder. For example, a facility code of 132196 would have 1024 tag ids associated with it.
Tag Type	A number within a range that identifies the type of transponder.
Transponder (tag)	Device to allow for automatic transaction identification, works by means of radio signal activation and returns the information programmed into it.
VES	Violation Enforcement System: for facilities with video enforcement, this would consist of high speed and video cameras to capture potential violator's license plate for further identification and forwarding to a Violation Processing System. For facilities without video enforcement, this might consist of visual enforcement by the CHP or other designated agency.

4   BUSINESS RULES

1) Identification of Issuing Agency - The Facility Code on the tag will identify the Issuing Agency (holder of the account). This requirement ensures that tags cannot be transferred from one agency to another.

2) Guarantee of payment for valid tags - The Issuing Agency will honor all transactions on transponders that were deemed "valid" in the Tag Status File, as sent to the Acquiring Agency for the date associated with each toll event. The Acquiring Agency has the responsibility to validate such transactions.

3) Guarantee of payment for valid plates - The Issuing Agency will honor all transactions on license plates deemed "valid" in the License Plate File, as sent to the Acquiring Agency for the date associated with each trip. The Acquiring Agency has the responsibility to validate these transactions against the latest plate status file received from the Issuing Agency. Due to the nature of plate based trips, trips may be finalized by the Acquiring Agency a few days after the actual transaction day. The Issuing Agency, up to a minimum of 90-days from the date of the transaction, shall make a best effort to post the trip to the account the license plate was registered to at the time of transaction. If the account balance is negative at the time of posting, the Issuing Agency would reject such transactions. Upon receipt of the rejection record of the PBP transaction, the Acquiring Agency may treat the trip as a violation.

4) Tag and Plate transactions are to be processed according to their status at the time of the transaction in the toll lane.

5) By convention all agencies accept that the reconciled toll charges will be available by 8:00 a.m. the following business day after processing with all reconciliation completed no longer than 14 calendar days after receipt. If reconciliation for a particular file is not received within 14 calendar days, the Issuing Agency shall honor all transactions within the original subject file.

6) The suggested time for the completion of the upload of all tag status (and plate status) files needed by an entity is set at 1:00 a.m.; the suggested time the lanes should be updated (with the tag status files) is no later than 5:00 a.m. This is to allow time for the loading of tag lists into lane controllers. This is a guideline. Some agencies may be able to load the tag lists to their lane controllers sooner. If a tag status (and/or plate status) file has not been received from an Issuing Agency, then the Receiving Agency should send an e-mail notification, by 10 a.m. of the same business day (or the next business day in the case of weekends and holidays), of non-receipt of the file(s). If a file (or files) is received past the recommended deadline, the receiving agency should make a best-effort to use the file(s) received.

7) Initialization files will be sent at least on a weekly basis on Saturdays at 1:00 a.m. for the plate and tag files.

5   TECHNICAL SPECIFICATIONS

5.1   File Exchange Methodology

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

Requirements

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