

REQUEST FOR PROPOSALS (RFP) 0-2352

**BACK-OFFICE SYSTEM AND CUSTOMER
SERVICE CENTER OPERATIONS SERVICES
FOR THE 405 EXPRESS LANES IN
ORANGE COUNTY**



ORANGE COUNTY TRANSPORTATION AUTHORITY

OCTA OFFICES
550 South Main Street
P.O. Box 14184
Orange, CA 92863-1584
(714) 560-6282

Key RFP Dates

Issue Date	June 22, 2020
Pre-Proposal Conference and Site Visit Date	June 30, 2020
Offeror Technical Questions Submittal Deadline	August 17, 2020
Authority Technical Questions Response Deadline	August 24, 2020
Offeror Pricing and Non-technical Questions Submittal Deadline	August 31, 2020
Authority Pricing and All Non-technical Questions Response Deadline	September 8, 2020
Proposal Due Date	September 24, 2020
Interview Dates:	December 9-10, 2020

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**NOTICE OF REQUEST FOR PROPOSALS****(RFP): 0-2352 BACK OFFICE SYSTEM AND CUSTOMER SERVICE CENTER OPERATIONS SERVICES FOR THE 405 EXPRESS LANES****TO: ALL OFFERORS****FROM: ORANGE COUNTY TRANSPORTATION AUTHORITY**

The Orange County Transportation Authority ("Authority") invites Proposals from qualified firms to provide Back Office System (BOS) and Customer Service Center (CSC) Operations for the 405 Express Lanes ("405 Express Lanes").

Required work ("Work") under this RFP includes the Implementation and Operations and Maintenance of the BOS and CSC for the 405 Express Lanes. Over the term of the Agreement the Authority may implement other toll facilities that may be added to this Project.

The Agreement will include both firm fixed and variable pricing elements. The initial term of the Agreement will be up to eight years, which includes an Implementation Phase and a six-year Operations and Maintenance Phase. Two optional contract extension periods are included for a total optional extension of up to five years. Optional Term 1 is for an extension period of up to three years and Option Term 2 if for an additional extension period of up to two years. Each may be executed at the sole determination of the Authority.

The Authority intends to provide a facility for Contractor's customer service center operations, which may also house other Authority contractors. The Contractor must provide space for its data center at another location in accordance with the Scope of Work and Requirements.

Authority's budget commitment, for the initial term of this Agreement, is anticipated to be \$133,876,546.

Close coordination will be required between the Contractor awarded the Contract resulting from this procurement ("the Contractor") and the 405 Express Lanes roadway toll system contractor.

Offerors are advised that the Reference Documents provided with this RFP are for the purpose of providing certain information to Offerors. Authority does not take responsibility for determining whether the Reference Materials are

accurate, complete, pertinent, or of any value to Offerors. Reference documents include the following:

- Toll Operating Agreement with California Department of Transportation (Caltrans) for the 405 Express Lanes in Orange County.
- OCTA 91 BOS and CSC Operations Historical Volumes

The Authority has set a three percent (3%) Disadvantaged Business Enterprise (DBE) participation goal for this project, as it is mainly funded with federal funds. Award of this contract is contingent upon Contractor's commitment to meet the DBE attainment requirements including good faith effort to meet the established goal.

Offerors are advised that by signing their Proposal, they are certifying that they and their Subcontractors are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency.

The following restrictions/prohibitions apply to this procurement:

- The firm, including all Subcontractors (at any tier), regardless of the level of service provided by said Subcontractor(s), awarded the program management services contract for the Authority's Highway Delivery Department, may not submit a Proposal to this procurement.
- The firm, including all Subcontractors (at any tier), regardless of the level of service provided by said subcontractor(s), awarded the program management consultant contract for the Authority's I-405 Improvement Project, may not submit a Proposal to this procurement.

The evaluation of Offeror team composition with regards to conflicts of interest will be done on a case-by-case basis.

Proposals must be received in the Authority's office at or before 2:00 p.m. on Thursday, September 24, 2020.

Proposals delivered in person or by a means other than the U.S. Postal Service shall be submitted to the following:

**Orange County Transportation Authority
Contracts Administration and Materials Management
600 South Main Street, (Lobby Receptionist)
Orange, California 92868
Attention: Mr. Robert Webb, Senior Contract Administrator**

Proposals delivered using the U.S. Postal Service shall be addressed as follows:

**Orange County Transportation Authority
Contracts Administration and Materials Management
P.O. Box 14184
Orange, California 92863-1584
Attention: Mr. Robert Webb, Senior Contract Administrator**

Proposals and amendments to Proposals received after the date and time specified above will be returned to the Offerors unopened.

All firms interested in responding to this procurement, are required to register their business on-line at CAMM NET. The website can be found at <https://cammnet.octa.net>. From the site menu click on CAMM NET to register.

Offerors are advised that the Authority is now on Facebook, at www.facebook.com/Cammnetconnect. Cammnet Connect was created by the Authority to provide a tool for firms to build business and partnering relationships with other firms interested in business opportunities with the Authority.

Firms interested in obtaining a copy of this Request For Proposals (RFP) may do so by downloading the RFP from CAMM NET at <https://cammnet.octa.net>.

To receive all further information regarding this RFP 0-2352, prime firms and Subcontractors must be registered on CAMM NET with at least one of the following commodity codes for this solicitation selected as part of the vendor's on-line registration profile:

Category	Commodity
Communication Equipment, Communication Systems	Telecommunications - Sales and Services
Computer: Hardware & Software	Accounting / Financial Software
	Business Software
	Computer: Hardware & Software
	Database Software
	Desktops, Notebooks & Appliances
	Enterprise Software -General
	Hardware Components & Accessories
	Networking Equipment
	Operating Systems and Network Software

Category	Commodity
	Servers and Storage Equipment
	Software Development and Tool Software
Facility; Equipment; Supplies	Security Systems - Equipment
Office Equipment, Office Furniture, Office Supplies	Office Equipment
	Office Furniture
	Office Supplies - General
Rental & Lease	Equipment Rental or Lease
	Office Equipment Rental or Lease
Human Resources & Employment Services	Employment Agency and Search Firm Services (including Background Checks)
	Employment Search Service
	Outplacement Services - Recruitment
	Temporary Employment Service
Maintenance Services - Equipment	Office Equipment Maintenance - General
	Office Furniture & Cubicle Maintenance
Marketing, Advertising & Media Services	Graphic Production Services
	Interior Design, Space Planning, and Exhibits/Displays
	Mail house Services
Office Services	Office Equipment Repair
Services (General)	Computers, Data Processing Equipment and Accessories
	Courier Services
	Document Destruction
	Interpreter Services (Foreign Language, Hearing Impaired, etc.)
	Language Translator / Interpreter Services
	Mail Services, Express
	Mailing Services (Including Collating, Packaging, and Sorting)
	Reprographic Services
Printing & Reproduction Services	Printing and Related Services
Professional Consulting	Accounting / Auditing / Budget Consulting
	Computer Network Consulting

Category	Commodity
	Consultant Services - Tolling Systems Design and Development
	Consultant Services - Intelligent Transportation Systems (ITS)
	Training
Professional Services	Accounting Services
	Computer Training
	Networking Services (including Installation and Maintenance)
	Support Services, Computer

A Pre-Proposal conference will be held on **June 29 TBD, 2019**, at OCTA Headquarters, 550 South Main Street, Orange CA 92863-1584. All prospective Offerors are encouraged to attend the pre-proposal conference. The schedule for the meetings is as follows:

- 8:30 am: Pre-Proposal conference at OCTA Headquarters Board

The Authority has established December 5, 201720, as the dates to conduct interviews. All prospective Offerors will be asked to keep these dates available.

Offerors are encouraged to subcontract with small businesses to the maximum extent possible.

All Offerors will be required to comply with all applicable equal opportunity laws and regulations.

The award of this Contract is subject to receipt of federal, state and/or local funds adequate to carry out the provisions of the proposed Agreement including the identified Scope of Work and Requirements.

SECTION I: INSTRUCTIONS TO OFFERORS

SECTION I. INSTRUCTIONS TO OFFERORS**A. PRE-PROPOSAL CONFERENCE AND SITE VISIT**

A Pre-Proposal conference will be held on **June 29, 2020**, beginning at : a.m. The Pre-Proposal conference is not mandatory; however, all prospective Offerors are encouraged to attend the Pre-Proposal conference.

B. EXAMINATION OF PROPOSAL DOCUMENTS

By submitting a Proposal, Offeror represents that it has thoroughly examined and become familiar with the Work required under this RFP (including all exhibits and addenda) and that it is capable of performing quality work to achieve the Authority's objectives. Failure of Offeror to so examine and inform itself shall be at its sole risk, and no relief for discrepancy, deficiency, ambiguity, error, or omission will be provided by the Authority.

C. ADDENDA

The Authority reserves the right to revise the RFP documents. Any changes made by the Authority to the requirements will be made by written addendum to this RFP. Where applicable, written addenda issued pertaining to this RFP shall be incorporated into the terms and conditions of any resulting Agreement. The Authority will not be bound to any modifications to or deviations from the requirements set forth in this RFP as the result of oral or written instructions. Offerors shall acknowledge receipt of all addenda in their Proposals. Failure to acknowledge receipt of addenda may cause the Proposal to be deemed non-responsive to this RFP and be rejected.

D. AUTHORITY CONTACT

All communication and/or contacts with Authority staff regarding this RFP are to be directed to the following Contract Administrator:

Mr. Robert Webb, Senior Contract Administrator
Contracts Administration and Materials Management Department
600 South Main Street
P.O. Box 14184
Orange, CA 92863-1584
Phone: 714.560.5446743, Fax: 714.560.5792
Email: 405ELBOS-CSC@OCTA.net

Commencing on the date of the issuance of this RFP and continuing until award of the Contract or cancellation of this RFP, no Offeror, Subcontractor, lobbyist or agent hired by the Offeror shall have any contact or communications regarding this RFP with any Authority staff or officers; member of the evaluation committee for this RFP; or any contractor or consultant involved with the procurement, other than the Contract Administrator named above or unless expressly permitted by this RFP. Contact includes face-to-face, telephone, electronic mail (e-mail) or formal written communication. Any

Offeror, Subcontractor, lobbyist or agent hired by the Offeror that engages in such prohibited communications may result in disqualification of Offeror at the sole discretion of the Authority.

E. CLARIFICATIONS

1. Examination of Documents

Should an Offeror require clarifications of this RFP, the Offeror shall notify the Authority in writing in accordance with Section E.2. below. Should the Authority find in its sole discretion that the point in question is not clearly and fully set forth in the RFP, the Authority will issue a written addendum clarifying the matter which will be sent to all firms registered on CAMM NET under the commodity codes specified in this RFP.

2. Submitting Requests

- a. All questions, including questions that could not be specifically answered at the Pre-Proposal conference must be put in writing, using the attached Form A, Offeror's Questions Form, and must be received by the Authority no later than 5:00 p.m. (local PT) on the dates stated in the Key RFP Dates Table provided on the RFP Cover Sheet. The Authority is not responsible for failure to respond to a request that has not been submitted as such.
- b. Any of the following methods of delivering written requests for clarifications, questions, and comments are acceptable as long as the questions are received no later than the date and time specified above:

(1) U.S. Mail: Orange County Transportation Authority, 550 South Main Street, P.O. Box 14184, Orange, California 92863-1584.

(2) Personal Delivery: Contracts Administration and Materials Management Department, 600 South Main Street, Lobby Receptionist, Orange, California 92868.

(3) Email (preferred method): 405ELBOS-CSC@OCTA.net

3. Authority Responses

Responses from the Authority will be posted on CAMM NET, no later than the dates shown on the Key RFP Dates Table on the RFP cover sheet. Offerors may download responses from CAMM NET at <https://cammnet.octa.net>, or request responses be sent via U.S. Mail by emailing the request to Mr. Robert Webb. To the extent that responses are provided, they will not be considered part of the Contract Documents, nor will they be relevant in interpreting the Contract Documents, except as expressly set forth therein.

To receive email notification of Authority responses when they are posted on CAMM NET, firms and Subcontractors must be registered on CAMM NET with at least one of the following commodity codes for this solicitation selected as part of the vendor's on-line registration profile:

Category	Commodity
Communication Equipment, Communication Systems	Telecommunications - Sales and Services
Computer: Hardware & Software	Accounting / Financial Software
	Business Software
	Computer: Hardware & Software
	Database Software
	Desktops, Notebooks & Appliances
	Enterprise Software -General
	Hardware Components & Accessories
	Networking Equipment
	Operating Systems and Network Software
	Servers and Storage Equipment
	Software Development and Tool Software
Facility; Equipment; Supplies	Security Systems - Equipment
Office Equipment, Office Furniture, Office Supplies	Office Equipment
	Office Furniture
	Office Supplies - General
Rental & Lease	Equipment Rental or Lease
	Office Equipment Rental or Lease
Human Resources & Employment Services	Employment Agency and Search Firm Services (including Background Checks)
	Employment Search Service
	Outplacement Services - Recruitment
	Temporary Employment Service
Maintenance Services - Equipment	Office Equipment Maintenance - General
	Office Furniture & Cubicle Maintenance
Marketing, Advertising & Media Services	Graphic Production Services
	Interior Design, Space Planning, and Exhibits/Displays

Category	Commodity
	Mail house Services
Office Services	Office Equipment Repair
Services (General)	Computers, Data Processing Equipment and Accessories
	Courier Services
	Document Destruction
	Interpreter Services (Foreign Language, Hearing Impaired, etc.)
	Language Translator / Interpreter Services
	Mail Services, Express
	Mailing Services (Including Collating, Packaging, and Sorting)
	Reprographic Services
Printing & Reproduction Services	Printing and Related Services
Professional Consulting	Accounting / Auditing / Budget Consulting
	Computer Network Consulting
	Consultant Services - Tolling Systems Design and Development
	Consultant Services - Intelligent Transportation Systems (ITS)
	Training
Professional Services	Accounting Services
	Computer Training
	Networking Services (including Installation and Maintenance)
	Support Services, Computer

Offeror inquiries regarding RFP content or Technical Proposal content will be accepted by the Authority at or before 5:00 p.m. on September 21, 201720. Inquiries regarding these matters will not be responded to after this date and time.

Offeror inquiries regarding Price Proposal and all non-technical matters including forms will be accepted by the Authority at or before 5:00 p.m. on September 21, 201720 no later than 5:00 p.m. (local PT). Inquiries regarding these matters will not be responded to after this date and time.

F. SUBMISSION OF PROPOSALS

1. Date and Time

Both Technical and Price Proposals must be received together, separately packaged as described below, in the Authority's office at or before **2:00 p.m. on September 24, 2020**.

Proposals received after the above-specified date and time will be returned to Offerors unopened.

2. Address

Proposals delivered in person or by a means other than the U.S. Postal Service shall be submitted to the following:

**Orange County Transportation Authority
Contracts Administration and Materials Management (Camm)
600 South Main Street, (Lobby Receptionist)
Orange, California 92868
Attention: Mr. Robert Webb, Senior Contract Administrator**

Proposals delivered using the U.S. Postal Services shall be addressed as follows:

**Orange County Transportation Authority
Contracts Administration and Materials Management (Camm)
P.O. Box 14184
Orange, California 92863-1584
Attention: Mr. Robert Webb, Senior Contract Administrator**

3. Identification of Proposals

Offeror shall submit **one (1) original, eight (8) hard copies, and one (1) electronic PDF copy (on a flash drive)** of its Technical Proposal in a sealed package, addressed as shown in F.2. Offeror shall include the Excel version of the Conformance Matrix on the flash drive. The outer envelope must show the Offeror's name and address and must be clearly marked with the RFP number.

The Price Proposal must be submitted in a sealed envelope, separate from the Technical Proposal package. **One (1) original and one (1) hard copy** are to be submitted, with **one (1) electronic copy on a flash drive**, in Excel file format.

4. Acceptance of Proposals

- a. The Authority reserves the right to accept or reject any and all Proposals, or any item or part thereof, or to waive any informalities or irregularities in Proposals or in the procurement process.

- b. The Authority reserves the right to withdraw or cancel this RFP at any time without prior notice and the Authority make no representations that any contract will be awarded to any Offeror responding to this RFP.
- c. The Authority reserves the right to issue a new RFP for the Project.
- d. The Authority reserves the right to postpone Proposal openings for its own convenience and modify any dates set for the Project in the RFP.
- e. Submitted Proposals are not to be copyrighted, as they are subject to the Public Records Request Act. Confidential and proprietary materials must be marked as such.
- f. Each Proposal will be received with the understanding that acceptance by the Authority of the Proposal to provide the Work described herein shall constitute a contract between the Offeror and Authority which shall bind the Offeror on its part to furnish and deliver at the prices given and in accordance with conditions of said accepted Proposal and specifications.
- g. The Authority reserves the right to investigate the qualifications of any Offeror, and/or require additional evidence of qualifications to perform the Work.
- h. The Authority reserves the right to approve or disapprove of an Offeror's Key Personnel or changes in an Offeror's organization.

G. PRE-CONTRACTUAL EXPENSES

The Authority shall not, in any event, be liable for any pre-contractual expenses incurred by Offeror in the preparation of its Proposal. Offeror shall not include any such expenses as part of its Proposal.

By way of example but not limitation, pre-contractual expenses include expenses incurred by Offeror in:

1. Preparing its Proposal in response to this RFP;
2. Submitting that Proposal to the Authority;
3. Negotiating with the Authority any matter related to this Proposal; or
4. Any other expenses incurred by Offeror prior to Effective Date of Agreement.

H. JOINT OFFERS

Where two or more firms desire to submit a single Proposal in response to this RFP, they should do so on a prime-subcontractor basis rather than as a joint venture. The Authority

intends to contract with a single firm and not with multiple firms doing business as a joint venture.

I. TAXES

Offerors' Proposals are subject to State and Local sales taxes. However, the Authority is exempt from the payment of Federal Excise and Transportation Taxes. Offeror is responsible for payment of all taxes for any goods, services, processes and operations incidental to or involved in the Agreement.

J. PROTEST PROCEDURES

The Authority has on file a set of written protest procedures applicable to this solicitation that may be obtained by contacting the Contract Administrator responsible for this procurement. Any protests filed by an Offeror in connection with this RFP must be submitted in accordance with the Authority's written procedures.

K. CONTRACT TYPE

It is anticipated that the Agreement resulting from this solicitation, if awarded, will be an agreement between the Authority and the Contractor, as a fixed and variable price contract specifying fixed prices for individual Implementation Phase milestones, and variable pricing for portions of the Work during the Operations and Maintenance Phase, as specified in the Scope of Work and Requirements, included in this RFP as Exhibit B and in Exhibit D, Price Proposal and Instructions and in the Agreement, included as Exhibit E.

L. FUNDING

Funding for the 405 Express Lanes Project includes TIFIA, federal, state and local funds.

M. CONFLICT OF INTEREST

All Offerors responding to this RFP must avoid organizational conflicts of interest which would restrict full and open competition in this procurement. An organizational conflict of interest means that due to other activities, relationships or contracts, Offeror is unable, or potentially unable to render impartial assistance or advice to Authority; Offeror's objectivity in performing the Work identified in the Scope of Work and Requirements is or might be otherwise impaired; Offeror has an unfair competitive advantage, or is engaging in activities that the Authority considers adverse to the 405 Express Lanes. Conflict of Interest issues must be fully disclosed in the Offeror's Proposal.

Offeror shall disclose any financial interests it may have in the 405 Express Lanes, and any other financial, business, or other relationship with the Authority that may have an impact upon this Project, or any ensuing Authority planned or current project. Offeror shall also list current clients who may have a financial interest in the outcome of this Project, or any ensuing Authority project, which will follow.

All Offerors must disclose in their Proposal and immediately throughout the course of the evaluation process if they have hired or retained an advocate to lobby Authority staff or the Board of Directors on their behalf.

Offerors hired to perform services for the Authority are prohibited from concurrently acting as an advocate for another firm who is competing for a contract with the Authority, either as a prime or subcontractor.

N. CODE OF CONDUCT

All Offerors agree to comply with the Authority's Code of Conduct, available at www.octa.net, as it relates to third-party contracts which is hereby referenced and by this reference is incorporated herein. All Offerors agree to include these requirements in all of its Subcontracts.

O. DISADVANTAGED BUSINESS ENTERPRISE

The Authority has established a three (3%) percent Disadvantaged Business Enterprise (DBE) participation goal for the services outlined in the Scope of Work and Requirements. Offerors must complete the DBE forms provided in Form D-1 through D-8.

Offerors are advised that commitment letters from proposed Subcontractors that are intended to satisfy the DBE participation goal are required. The letters must include the dollar amounts and percentages of the CONTRACTOR's price committed, and be submitted along with the Proposal.

Substitution of Subcontractors shall be in accordance with the Contract terms and conditions. If a listed or Approved DBE Subcontractor is unable to perform the Work in accordance with the Contract Requirements, the Prime Contractor shall replace the Subcontractor with another DBE Subcontractor, or make good faith efforts to do so in accordance with the Contract terms and conditions. Such request for substitution is subject to Approval by the Authority.

P. PROHIBITION

The following restrictions apply to this procurement:

- The firm, including all Subcontractors (at any tier), regardless of the level of service provided by said Subcontractor(s), awarded the program management services contract for the Authority's Highway Delivery Department, may not submit a Proposal to this procurement.
- The firm, including all Subcontractors (at any tier), regardless of the level of service provided by said subcontractor(s), awarded the program management consultant contract for the Authority's I-405 Improvement Project, may not submit a Proposal to this procurement.

The evaluation of Offeror's team composition with regard to conflict of interest will be done on a case-by-case basis.

Q. NONDISCRIMINATION

The Authority hereby notifies all Offerors that it will affirmatively insure that in any agreement entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, sex, national origin, religion, age, or disability in consideration for an award.

R. PRIME AND LOWER TIER DEBARMENT

Offerors are advised that by signing their Proposal, they are certifying that they and their Subcontractors are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency.

S. PREVAILING WAGES

Certain labor categories under this project are subject to prevailing wages as identified in the State of California Labor Code commencing in Section 1770 et seq., and all applicable Federal requirements respecting prevailing wages. The Offeror to whom a Contract for the Work is awarded by the Authority shall comply with the provision of the California Labor Code, including, without limitation, the obligation to pay the general prevailing rates of wages in the locality in which the Work is to be performed in accordance with, without limitation, Sections 1773.1, 1774, 1775 and 1776 of the California Labor Code governing employment of apprentices. Copies of the prevailing rates of per diem wages are on file at the Authority's principal office at 550 S. Main Street, Orange, CA 92868 and are available to any interested party on request.

T. PERMITS AND INSPECTION COSTS

Successful Offeror shall procure all permits and licenses; pay all charges, assessments and fees, as may be required by the ordinances and regulations of the public Authority having jurisdiction over the areas in which the Work is located and shall comply with all the terms and conditions thereof and with all lawful orders and regulations of each such public agency relating to construction operations under the jurisdiction of such agency.

U. EXECUTION OF CONTRACT

Within ten (10) Business Days after notification of contract award from the Authority, the successful Offeror shall submit to the Authority: the required contract bonds shown in Forms I, J and K, and acceptable insurance certificates as required by the proposed Agreement. Failure to sign the Contract and submit applicable bonds, and acceptable insurance certificates within the specified time shall be cause to cancel the award. Transfers of contract, or of interest in contracts, are prohibited.

Additionally, at Authority' sole discretion, a letter of Guaranty may be requested from Offerors if deemed necessary.

V. LIQUIDATED DAMAGES

Authority reserves the right to assess liquidated damages related to Contractor's performance, Key Personnel availability, and delays in Guaranteed Completion Dates for Go-Live, as detailed in the Proposed Agreement included in this RFP as Exhibit E.

W. PUBLIC RECORDS AND INFORMATION

Proposals received by Authority are subject to the California Public Records Act, Government Code section 6250 et seq. (the "Act"), except as otherwise provided in the Act. In no event shall the Authority or any of its agents, representatives, consultants, directors, officers, or employees be liable to an Offeror for the disclosure of any materials or information submitted in response to the RFP. The Offeror must complete the Form M, Public Records Act Indemnification-Proposal Documents and submit with its Proposal.

If a request is received by Authority for the release of information identified by Offeror as propriety, trade secret or confidential, the request will be referred to the Offeror for review and consideration. If Offeror asks that the information be withheld from release, Offeror shall defend and hold harmless Authority from any legal action arising from such withholding, as further detailed in Form M, Public Records Act Indemnification-Proposal Documents.

SECTION II: PROPOSAL CONTENT

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SECTION II. PROPOSAL CONTENT

A. PROPOSAL FORMAT AND CONTENT

1. Format

Proposals should be typed with a standard 12-point font, double-spaced and submitted on 8 1/2" x 11" size paper, using a single method of fastening. Charts, figures, resumes, schedules, and pre-printed materials may contain smaller fonts and line spacing as required. Charts, diagrams and schedules may be included in 11"x17" format. Proposals should not include any unnecessarily elaborate or promotional materials. Proposals should not exceed one-hundred (100) pages in length excluding from the page limits, the cover letter, Executive Summary, all appendices, resumes, project schedule, tabs, title page, table of contents, and required completed forms.

Offer shall complete and submit with the Technical Proposal the following appendices:

1. Preliminary bill of materials for all Equipment, Software and Hardware including manufacturer, model number, and quantities.
2. Product cut sheets.
3. Audited financial statements which may be submitted in electronic PDF format only on a clearly marked flash drive.
4. Resumes and References.
5. Completed Conformance Matrix.
6. Proposed Implementation Schedule.

2. Letter of Transmittal

The Letter of Transmittal shall be addressed to Mr. Reem Hashemobert Webb, and must, at a minimum, contain the following:

- a. Identification of Offeror that will have contractual responsibility with the Authority. Identification shall include legal name of company, corporate address, telephone and fax number, and email address. Include name, title, address, email address, and telephone number of the contact person identified during period of Proposal evaluation. Licensing information, if applicable, such as license number and status of license, must be submitted.

- b. Identification of all proposed Subcontractors including legal name of company, contact person's name and address, phone number and fax number, and email address; role of Subcontractor on Project, and relationship between Offeror and Subcontractors, if applicable. Licensing information, if applicable, such as license number and status of license, must be submitted.
- c. Acknowledgement of receipt of all RFP addenda, if any.
- d. A statement to the effect that the Proposal shall remain valid for a period of not less than 210 days from the date of submittal.
- e. Signature of a person authorized to bind Offeror to the terms of the Proposal.
- f. Signed statement attesting that all information submitted with the Proposal is true and correct.

3. Executive Summary

The Executive Summary shall be a brief overview, not to exceed five (5) pages, summarizing the Technical Proposal, and explaining how the Proposal being offered best addresses the evaluation criteria listed in this RFP. Include summaries of Offeror's understanding of the Authority's needs, and proposed approach to coordinating with the Authority, developing and implementing the BOS and CSC Operations, and providing Operations and Maintenance Services.

4. Technical Proposal

The Technical Proposal shall include the following sections:

- Qualifications, Related Experience and References
- Staffing and Project Organization
- Implementation Work Plan and Technical Approach
- CSC Operations Work Plan, Operational Startup, and Approach

Offerors must specifically answer all of the following information requests using the lettering sequence provided below. Please place the full lettering/numbering of the information request that is being responded to immediately above your response for each item. If the information request includes sub-parts (such as a, b, c...), please adhere to that format and specifically respond to each sub-part and do not provide any part of the response under the introductory portion of your response; rather, the response shall be provided under the relevant sub-part only.

Proposal Section A - Qualifications, Related Experience and References

This section of the Proposal should establish the Offeror's ability to perform the required Work based on the team's structure, strength and stability of the team, prior experience performing similar work, references and availability of resources. Use diagrams and organizational charts as necessary.

Offeror to:

1. Provide an overview of the team (prime and Subcontractors) and a brief profile of each organization, including the types of services offered; the year founded; form of the organization (corporation, partnership, sole proprietorship); number, size and location of offices; and number of employees. In addition, for each organization provide a primary address, contact person, telephone number, and email address using Form P, List of Subcontractors, for all Subcontractors.
2. Explain the team's (prime and Subcontractors) structure, areas of responsibility, and describe team's experience in working with each other, if applicable.
3. Provide a general description of the prime's and all major Subcontractors' financial condition and identify any conditions (e.g., bankruptcy, pending litigation, planned office closures, impending merger) that may impede the team's ability to complete the Project. The Offeror, primary BOS provider if a Subcontractor, and primary CSC Operations provider, if a Subcontractor, shall provide audited financial statements for the last fiscal year in Appendix 3.
4. Provide the team's current and future commitments that will coincide with the Implementation Phase and the Operations and Maintenance Phase.
5. Provide a completed Form N, Offeror Recent Client List.
6. Describe the team's (prime and Subcontractors) experience in performing work of a similar nature to that solicited in this RFP.
7. Using Form O-1 Part 1 (BOS Implementation and Maintenance), provide a minimum of two (2) and a maximum of four (4) reference projects for BOS Implementation and Maintenance similar in scope to this Project. Include in Appendix 4.
8. Using Form O-1 Part 2 (Operations) provide a minimum of two (2) and a maximum of four (4) reference projects for Customer Service Center planning and operations similar in scope to this Project. Include in Appendix 4.

Proposal Section B - Staffing and Project Organization

This section of the Proposal should establish the method which will be used by the Offeror to manage the Project, as well as identify Key Personnel assigned.

Offeror to:

1. Include Project organization charts, including the organization that each staff person works for and their physical location, for each phase:
 - a. Implementation Phase
 - b. CSC Operations during the Operations and Maintenance Phase
 - c. BOS Maintenance during the Operations and Maintenance Phase.
2. Identify Key Personnel (see Scope of Work and Requirements Volume 1 for a complete list of Key Personnel) proposed to perform the Work. Include the person's name, organization, proposed position for this Project, current location and assignments, level of commitment to his/her current assignments, and how long employed with the organization. Also identify Key Personnel proposed locations, availability for Work on this project and time commitments on the Project.
3. Furnish resumes (not more than two [2] pages each) for all Key Personnel, that include the organization they work for, proposed position, education, applicable experience, and applicable professional credentials. Include in Appendix 4.
4. Describe the Offeror's philosophy and approach to training and staffing the CSC Operations to ensure Operational Readiness.
5. Provide references for Key Personnel using Forms P-2 Reference Projects Key Personnel Forms. Include in Appendix 4.

Proposal Section C: Implementation Work Plan and Technical Approach to BOS

Offerors shall carefully review Volume II: BOS Technology and Functionality and shall fully complete the required information in the columns of the Requirements Conformance Matrix in accordance with the instructions provided therein. The Conformance Matrix is included as Form Q in Excel format. as part of the RFP forms. The form shall be completed and submitted in searchable PDF format in Appendix 5 of the Technical Proposal and in Excel format on the flash drive with the Technical Proposal, as directed in Section I, F. 3, Identification of Proposals.

Offerors should provide a narrative and diagrams, which address the Scope of Work and Requirements, and describe the Offeror's approach to the BOS. Offerors should note experience with California Law and the California tolling environment where applicable.

The Proposal shall address the following:

1. Approach to project management of the BOS Implementation Phase.
2. Approach to project management of the BOS during the Operations and Maintenance Phase.
3. Approach to BOS quality assurance/Quality Control (QA/QC) during the Implementation Phase.
4. Approach to BOS QA/QC during the Operations and Maintenance Phase.
5. Describe the proposed system and Software architecture.
6. Discuss generally the BOS Software (including other Authorities or customers using the product) that is the genesis of the proposed BOS and what overall level of new development versus customization or configuration is planned (response should align with the detailed information provided in the Conformance Matrix).
7. Approach to developing and efficiently incorporating Authority's Business Rules and policies into the BOS.
8. Approach to the design and development of the BOS and the expected level of Authority interaction and participation.
9. Approach to delivery of all BOS documentation.
10. Approach to testing of the BOS.
11. Approach to complying with all Security Standards.
12. Approach to delivering the BOS in the timeframe described in the Proposal (include a proposed Project Implementation Schedule as Appendix 6).
13. Identify any risks and mitigation strategies related to the delivery of the BOS within the required timeframe.
14. Approach to meeting the requirements in Volume II:

- a. Account Management
 - b. Image Transfer and Transaction/Trip Processing
 - c. Account Notification
 - d. Payment Processing
 - e. Case Management
 - f. Violation Processing
 - g. Collection and Registration Holds
 - h. Transponder Inventory
 - i. Customer Portals
 - j. Customer communications across all channels
 - k. Financial Requirements
 - l. Reporting
 - m. Performance Management and Monitoring System.
15. Approach to maintaining BOS Software and keeping the self-service website and mobile application (if option executed) current over the term of the Agreement.
16. Approach to monitoring and reporting on the BOS performance against the Performance Measures.
17. Approach to maintaining and administering the BOS.
18. Approach to refreshing the BOS Hardware CSC Operations desktop environment over the term of the Agreement.
19. Approach to providing BOS support to the CSC Operations and Authority's staff.
20. Approach to selection of Merchant Services Providers and tokenization provider:
- a. Name the provider, discuss the Offeror's experience with Merchant Services Provider #1 and explain why this provider was selected.

- b. Provide a Merchant Services Provider #1 detailed cost table (separate ACH from Credit Card) breaking out the detailed costs, excluding interchange fees assessed by the card brands, and fees related to processing of ACH and Credit Cards. For example there should be separate lines for each cost item such as:
- Discount rates
 - Transaction fees
 - Gateway fees
 - Tokenization fees
 - Monthly and annual fees
 - Chargeback fees
 - Voice authorization fees
 - Account updater fees
 - Other fees as applicable.
- c. Name the provider, discuss the Offeror's experience with Merchant Services Provider #2, and explain why this provider was selected.
- d. Provide the same cost table for Merchant Services Provider #2 as described in (b) above.

Proposal Section D: CSC Operations Work Plan, Operational Startup and Approach

Offerors should provide a narrative and diagrams, which address the Scope of Work and Requirements, and describe the Offeror's approach to CSC Operations focusing on the Work provided by staff rather than the BOS. The Offeror should note experience with California Law and the California tolling environment where applicable.

The Proposal shall address the following:

1. Approach to project management and planning of CSC Operations during the Implementation Phase.
2. Approach to project management of CSC Operations during the Operations and Maintenance Phase.

3. Approach to CSC Operations QA/QC during the Maintenance and Operations Phase.
4. Approach to providing process improvements through the term of the Agreement.
5. Approach to incorporating Authority' Business Rules and policies into the CSC Operations.
6. Approach to monitoring and reporting on the CSC Operations performance against the Performance Measures.
7. Describe how Operations staff will provide system design input to BOS provider during initial design and after Go-Live.
8. Approach to staffing, hiring and training initial staff. Identify any risks and mitigation strategies related to achieving CSC Operations Readiness (Identify the CSC Operations related major milestones within the Preliminary Implementation Schedule provided as part of Section C).
9. Provide a detailed list of anticipated predecessor tasks required in order to achieve Acceptance of Operational Readiness prior to Go-Live.
10. Approach to properly staffing the CSC Operations during the Operations and Maintenance Phase to ensure that the CSC Operations performance requirements are met.
11. Approach to security and privacy compliance.
12. Approach to Disaster Recovery and Business Continuity Specifically address proposed handling of events similar to the COVID 19 pandemic, including plan for shift to work-at home CSRS, and what lessons have been learned in that regard.
13. Approach to providing excellent customer service.
14. Approach to effectively managing customer contacts across all channels.
15. Approach to in-bound mail processing and handling of undeliverable mail.
16. Approach to rental car transactions.
17. Approach to violations and the organization of staff to support the process.
18. Approach to Registration Holds.

19. Approach to processing payments and refunds.

20. Approach to financial management.

21. Approach to managing and distributing transponders.

22. Approach to Collections:

- a. Name the provider and describe the collections approach of Collections Agency #1 and the resulting benefit to the Authority.
- b. Provide a Collections Agency #1 cost table detailing the rates and fees for collections services in the Scope of Work and Requirements. The table shall separately address Collections Placements that are 1) new placement, but for which the CSC Operations has attempted the initial collection and failed and 2) new placement, for which no previous collection has been attempted. In addition, provide the cost of successful and unsuccessful skip-traces and cost for processing of civil judgements.
- c. Name the provider and describe the collections approach of Collections Agency #2 and the resulting benefit to the Authority.
- d. Provide the same cost table as described in (b) above for Collections Agency #2.

23. Approach to initial (pre-Collections Placement) collections attempts by CSC Operations.

24. Approach to postage rate discounts:

- a. Describe the day-to-day mailing strategies that will be employed to save postage costs while meeting the Requirements.
- b. Provide a detailed Postage Rate Table for all Orange County zip codes for different types and volumes of mailing (the table should be placed in Appendix 7: Postage Rate Table).

5. Exceptions/Deviations

State any technical and/or contractual exceptions and/or deviations from the requirements of this RFP, including the Authority's technical requirements and contractual terms and conditions set forth in the Scope of Work and Requirements (Exhibit B) and Proposed Agreement (Exhibit E), using the form entitled "Proposal Exceptions and/or Deviations" (Form F) included in this RFP. This Proposal Exceptions and/or Deviations form must be included in the original Proposal submitted by the Offeror.

If no technical or contractual exceptions and/or deviations are submitted as part of the original Proposal, Offerors are deemed to have accepted the Authority's technical requirements and contractual terms and conditions set forth in the Scope of Work and Requirements (Exhibit B) and Proposed Agreement (Exhibit E.) Offerors will not be allowed to submit the Proposal Exceptions and/or Deviations form or any technical and/or contractual exceptions after the Proposal submittal due date identified in the RFP. Exceptions and/or deviations submitted after the Proposal submittal date will not be reviewed by the Authority.

All exceptions and/or deviations will be reviewed by the Authority and will be assigned a "pass" or "fail" status. Exceptions and deviations that "pass" do not mean that the Authority has accepted the change but that it is a potential negotiable issue. Exceptions and deviations that receive a "fail" status means that the requested change is not something that the Authority would consider a potential negotiable issue. Offerors that receive a "fail" status on their exceptions and/or deviations will be notified by the Authority and will be allowed to retract the exception and/or deviation and continue in the evaluation process. Any exceptions and/or deviations that receive a "fail" status and the Offeror cannot or does not retract the requested change may result in the firm being eliminated from further evaluation.

6. Cost and Price Proposal

As part of the cost and Price Proposal, the Offeror shall submit proposed pricing to provide the Work described in the Scope of Work and Requirements (Exhibit B).

The Offeror shall complete the "Price Proposal" form (Exhibit D) included with this RFP and submit in a separately sealed envelope from the Technical Proposal. **The Price Proposal must be completed in its entirety in accordance with the Price Proposal Instructions.**

All boxes, packages, and envelopes containing Price Proposals shall be clearly labeled with Offeror's name, "Price Proposal" and this RFP title and number (along with the package number (e.g., 1 of 1). The original Price Proposal envelope shall be marked "Original".

Price Proposals shall be submitted in the manner and quantities identified in Section I (paragraph F3). File names shall also be clearly identified with the Offeror's name and contents clearly labeled. In the event of a discrepancy between the signed hard copy Price Proposal and the electronic copy, the signed hard copy submittal will take precedence.

It is anticipated that the Authority will enter into a fixed and variable price contract specifying fixed prices for Deliverables in the Implementation Phase, as well as variable prices for Work performed during the Operations and Maintenance Phase,

as further specified in the Scope of Work and Requirements and the Price Proposal Instructions.

7. Required Appendices

Offerors shall provide the following required appendices in their Proposal as follows:

- Appendix 1: Preliminary bill of materials for all equipment, software and hardware including manufacturer, model number, and quantities.
- Appendix 2: Product Cut sheets.
- Appendix 3: Audited financial statements.
- Appendix 4: Resumes and References.
- Appendix 5: Completed Conformance Matrix.
- Appendix 6: Project Implementation Schedule.
- Appendix 7: Postage Rate Table.

8. Additional Appendices

Information considered by Offeror to be pertinent to this Project and which has not been specifically solicited in any of the aforementioned sections may be placed in a separate appendix section labeled Additional Appendices. Offerors are cautioned, however, that this does not constitute an invitation to submit large amounts of extraneous materials. Appendices should be relevant and brief.

B. FORMS

Unless otherwise noted above in Section A, Proposal Format and Content, or in this Section B, completed forms are to be submitted in a separate Technical Proposal section entitled "Forms". The following forms are included in the RFP:

1. Offeror's Questions Form – Form A

Offerors shall use this form to submit any questions they may have with respect to this RFP or any part thereof.

2. Campaign Contribution Disclosure Form – Form B

Offerors shall complete Form B In conformance with the statutory requirements of the State of California Government Code Section 84308, part of the Political Reform Act and Title 2, California Code of Regulations 18438 through 18438.8, regarding

campaign contributions to members of appointed Boards of Directors, Offeror is required to complete and sign the Campaign Contribution Disclosure Form provided in this RFP.

This form **must** be completed regardless of whether a campaign contribution has been made or not and regardless of the amount of the contribution.

The prime Contractor, Subcontractors, lobbyists and agents are required to report all campaign contributions from the Proposal submittal date up and until the Board of Directors makes a selection, which is currently scheduled for March 8, 2021.

Offeror is required to submit only one copy of the completed Form B as part of its Proposal and it should be included in only the original Technical Proposal.

3. Status of Past and Present Contracts Form – Form C

Offeror shall complete and sign the form entitled “Status of Past and Present Contracts” provided in this RFP. Offeror shall identify the status of past and present contracts where the firm has either provided services as a prime vendor or a subcontractor during the past five (5) years in which the contract has been the subject of or may be involved in litigation with the contracting authority. This includes, but is not limited to, claims, settlement agreements, arbitrations, administrative proceedings, and investigations arising out of the contract. Offeror shall have an ongoing obligation to update the Authority with any changes to the identified contracts and any new litigation, claims, settlement agreements, arbitrations, administrative proceedings, or investigations that arise subsequent to the submission of Offeror’s Proposal.

A separate form must be completed for each identified contract. Each form must be signed by the Offeror confirming that the information provided is true and accurate. Offeror is required to submit one copy of the completed form(s) as part of its Proposal and it should be included in only the original Technical Proposal.

4. Disadvantaged Business Enterprise Program Requirements and Forms – Form D

Offeror shall complete Forms D-1, D-2, D-3, D-4, D-5, D-6, D-7, and D-8 per the instructions set forth in “DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM REQUIREMENTS.”

5. Certification of Restrictions on Lobbying Form – Form E

As a recipient of federal funds, the Authority is required to certify compliance with the influencing restrictions and efforts of Offeror to influence federal officials regarding specific procurements in excess of \$100,000.00 that must be disclosed pursuant to section 1352, Title 31, U.S. Code.

This RFP includes, under Form E, the following forms: a certification form entitled “Certification of Restrictions on Lobbying,” the office of Management and Budget (OMB) Standard Form E entitled “Disclosure of Lobbying Activities,” and a document entitled “Limitation on Payments to Influence Certain Federal Transactions.”

The Offeror to this solicitation will be required to complete and submit to the Authority in their Technical Proposal, the certification form entitled “Certification of Restrictions on Lobbying” whether or not any lobbying efforts took place. If the Offeror did engage in lobbying activities, then OMB Standard Form E “Disclosure of Lobbying Activities” must also be completed and submitted to the Authority.

6. Proposal Exceptions and/or Deviations Form – Form F

Offerors shall complete the form entitled “Proposal Exceptions and/or Deviations” provided in this RFP and submit it as part of the original Technical Proposal. For each exception and/or deviation, a new form should be used, identifying the exception and/or deviation and the rationale for requesting the change. Exceptions and/or deviations submitted after the Proposal submittal date will not be reviewed nor considered by the Authority.

7. Surety Commitment Letter – Form G

Offerors shall complete, sign, seal, and submit this Surety Commitment Letter with the Price Proposal.

8. Escrow Agreement – Form H

This is a sample form of the escrow agreement, to be prepared substantially in the form provided herein at the time of Agreement execution. Offerors *do not* submit this form with the Proposal.

9. Performance Bond – Form I

This is the sample form of Performance Bond, to be prepared substantially in the form provided herein at the time of Agreement execution. Offerors *do not* submit this form with the Proposal.

10. Payment Bond – Form J

This is the sample form of Payment Bond to be prepared substantially in the form provided herein at the time of Agreement execution. Offerors *do not* submit this form with the Proposal.

11. Operations and Maintenance Bond – Form K

This is the sample form of Operations and Maintenance Bond to be prepared substantially in the form provided herein at the time of Agreement execution. Offerors *do not* submit this form with the Proposal.

12. Iran Contracting Act Certification – Form L

Offerors shall complete and submit this Iran Contracting Certification form with the Technical Proposal.

13. Public Records Act Indemnification Proposal Documents – Form M

Offerors shall complete and sign this form with the Technical Proposal.

14. Offeror Recent Client List – Form N

Offerors shall complete and submit this Recent Client List with the Technical Proposal. Provide a list of all Offeror's contracts in the most recent three years, up to a maximum of 20 contracts.

15. Reference Forms – Form O

Offerors shall complete and submit reference forms P-1, Parts 1 and 2, and P-2 with the Technical Proposal. References must be independent from Offeror's own firm, and must be from third party agencies or companies for which similar work has been performed by Offeror or Key Personnel as applicable to the specific form.

16. List of Subcontractors – Form P

Offerors shall complete and submit with their Technical Proposal a list of all Subcontractors proposed on this Project, including their role on the Project.

17. Conformance Matrix- Form Q

Offerors shall complete the Conformance Matrix in accordance with the instructions provided in the form and shall submit the PDF version in Appendix 5 and the Excel version of the completed matrix on the flash drive used for the electronic version of the Technical Proposal.

SECTION III: EVALUATION AND AWARD

SECTION III. EVALUATION AND AWARD

A. EVALUATION CRITERIA

The Authority will evaluate the Proposals received based on the following criteria:

1. Qualifications, Related Experience, and References of the Firm (Proposal Section A) 15%

- Overall strength of team.
- Strength of prime and all major Subcontractor's financial condition.
- Experience of the team and relevant project experience in BOS and CSC Operations Implementation, as well as operations and maintenance (experience with similar scopes of work, current installations of the BOS, current similar operations).
- Strength and relevance of reference projects.
- Strength and relevance of reference checks.
- Other on-going project commitments and priorities.

2. Staffing and Project Organization (Proposal Section B) 15%

- Strength of team's organization (completeness, clear delineation of communication and reporting relationships of staff and firms).
- Experience of the proposed Project Manager and other Key Personnel relative to this Project, including resumes.
- Key Personnel Reference projects, including relevance of role and reference check results.
- Commitment to meeting local presence requirements of Key Personnel.
- Logic and depth of Implementation Phase organization.
- Logic and depth of Operations and Maintenance Phase organization.
- Demonstrated ability to provide and train CSC Operations staff to meet Operational Readiness requirements.

3. Implementation Work Plan and Technical Approach to BOS (Proposal Section C) 30%

- Demonstrated ability to meet the Authority's schedule requirements.
- Completeness and effectiveness of project management and risk management approach.

- Completeness and effectiveness of QA/QC approach.
- Demonstrated process for developing and efficiently incorporating Agency Business Rules and policies into the BOS.
- Knowledge of California tolling environment.
- Completeness and efficiency of approach to design, development, documentation and testing.
- System architecture logic, configurability, reliability and flexibility.
- Proven success of architecture and software on a similar project.
- Demonstrated ability to comply with the BOS related Security Standards.
- Understanding and approach to delivering technical Requirements in Volume II.
- Demonstrated ability to meet the BOS performance Requirements in Volume IV.
- Commitment to delivering a BOS that emphasizes customer self-service.
- Solution to providing adequate BOS redundancy and disaster recovery.
- Demonstrated ability to maintain, administer and update the BOS to ensure KPI's are met.
- Demonstrated commitment to serving CSC Operations and Authority staff.
- Approach to payment processing through the Merchant Service Provider and controlling processing costs.

4. CSC Operations Work Plan, Operational Startup and Approach (Proposal Section D) 20%

- Demonstrated ability to meet the Authority's schedule requirements.
- Demonstrated process for developing and efficiently incorporating Authority' Business Rules and policies into the CSC Operations.
- Commitment to Operations staff involvement in BOS design and testing.
- Commitment to providing and training adequate staff initially and through the term of the Agreement.
- Commitment to providing excellent customer service.
- Demonstrated ability to meet the CSC Operations performance Requirements in Volume IV.
- Thoroughness of QA/QC program.

- Thorough understanding of California Law and tolling environment.
- Demonstrated understanding and ability to provide the Work described in Volume III.
- Commitment to providing current customer service best practices resulting in efficient processes, customer self-service and accuracy.
- Demonstrated ability to provide strong financial controls.
- Demonstrated ability to comply with the CSC Operations related Security Standards.
- Approach to Collections.
- Approach to minimizing postage costs.

5. Cost and Price

20%

Reasonableness of the total price as well as the individual tasks; competitiveness with other offers received; adequacy of data in support of figures quoted.

B. EVALUATION PROCEDURE

An evaluation committee will be appointed to review all Proposals received for this RFP. The committee is comprised of Authority staff and may include outside personnel. The committee members will evaluate the written Proposals using criteria identified in Section III A. The evaluation committee will also be assisted by a technical review committee comprised of subject-matter experts. The technical review committee's role will be to review the technical components of the Proposals and provide their written assessment of their strengths and weaknesses, to assist the evaluation committee in their evaluation of the Proposals. A list of top ranked Proposals within a competitive range, will be developed based upon the totals of each evaluation committee member's score for each Proposal.

During the evaluation period, the Authority may interview some or all of the Offerors. The Authority has established December 9 and 10, 2020, as the dates to conduct interviews. All prospective Offerors are asked to keep these dates available. No other interview dates will be provided, therefore, if an Offeror is unable to attend the interview on this date, its Proposal may be eliminated from further discussion. The Authority will provide an agenda for the interview which will consist of a short presentation by the Offeror after which the evaluation committee will ask questions related to the firm's Proposal and qualifications. In addition, the Authority may send out questions to some or all of the Offerors to respond to in writing in advance of the interviews. Offeror responses may be subject to discussion at the interview.

At the conclusion of the Proposal evaluations, Offerors remaining within the competitive range may be asked to submit a Best and Final Offer (BAFO). In the BAFO request, the

firms may be asked to provide additional information, confirm or clarify issues, and submit a final price Proposal. A deadline for submission will be stipulated.

At the conclusion of the evaluation process, the evaluation committee will recommend to the Authority's Board Committee, the Offeror with the highest final ranking within the competitive range whose Proposal(s) is most advantageous to the Authority.

C. AWARD

The Board Committee for the Authority will review the evaluation committee's recommendation and forward their decisions to its Board of Directors for final action regarding selection. The Authority may also negotiate contract terms with the selected Offeror prior to award, and expressly reserve the right to negotiate with several Offerors simultaneously and, thereafter, to award a contract to the Offeror offering the most favorable terms to the Authority.

The Authority reserves the right to award its total requirements to one Offeror or to apportion those requirements among several Offerors as the Authority may deem to be in its best interest. In addition, negotiations may or may not be conducted with Offerors; therefore, the Proposal submitted should contain Offeror's most favorable terms and conditions, since the selection and award may be made without discussion with any Offeror.

The selected Offeror will be required to submit to the Authority's Accounting department a current IRS W-9 form prior to commencing Work.

D. NOTIFICATION OF AWARD AND DEBRIEFING

Offerors who submit a Proposal in response to this RFP shall be notified via CAMM NET of the Contract award. Such notification shall be made within three (3) business days of the date the Contract is awarded.

Offerors who were not awarded the Contract may obtain a debriefing concerning the strengths and weaknesses of their Proposal. Unsuccessful Offerors, who wish to be debriefed, must request the debriefing in writing or electronic mail and the Authority must receive it within three (3) Business Days of notification of the Contract award.

EXHIBIT A: DEFINITIONS AND ACRONYMS

Definitions

The following terms, as used in this RFP and the Agreement, are capitalized and shall have the meaning as provided herein.

Note: Terms that are specifically defined within the Agreement or are generally understood from the context are generally not included in the definitions below. Titles of Deliverables which are fully described and detailed in the Scope of Work and Requirements are also generally not included in this exhibit.

Term	Definition
Acceptance	Approval of the BOS as further set forth in Article 23.
Account Plan(s)	Various plans are available to 405 Express Lanes account holders associated with payment of tolls. Each of the account plans have unique account establishment amounts, monthly account fees, and discounts.
Adjustment	A reduction of the monthly fee amount paid to the Contractor based on the Contractor not meeting the Performance Measures set forth in the Scope of Work and Requirements and Agreement.
Administrative Review Hearing	Appearance in front of an Administrative Hearing Officer, in person, via teleconference or via written record related to an Administrative Review.
Administrative Hearing Officer	Person responsible for conducting Administrative Review Hearing.
Affidavit of Non-Liability	Form to be filled out by a motorist proving they were not liable for the violation in question.
Agreement	The contract for this RFP and Project executed by the Authority and the Contractor, containing the terms and conditions, all exhibits, and reference documents, including all amendments thereto. The sample Agreement is included as RFP Exhibit G.
Alert(s)	Electronic message generated by the BOS to notify users of an issue or status in accordance with the Scope of Work and Requirements and Approved Business Rules.
Amendment	The means of making Changes to the Agreement pursuant to Article 16, Changes. Also referred to as "Change Order".
Anniversary Day	The Anniversary Day is used in the calculation of an invoice period, statement or Violation Notice. It is based on account attributes, such as Account Type, account creation date, date of first transaction, date of initial Invoice, date of last Invoice date of Violation Notice issuance.
Approve	The term "Approve" and its variations (e.g., "Approval" or "Approved"), when capitalized in this Agreement refer to acceptance of a process, vendor, document, condition, action, Submittal, or Deliverable in writing by the Agencies. Approval by the Agencies shall not be construed to mean endorsement or assumption of liability by the Agencies nor shall it relieve the Contractor of its responsibilities under the Agreement.
Approved Baseline Implementation Schedule	The Baseline Implementation Schedule that is Approved pursuant to the Agreement, which shall be the basis for Implementation Phase Work progress measurement.

Term	Definition
Authority	See "Orange County Transportation Authority".
Authority's Data	Any Authority's information, data, records and information to which the Contractor has access, possession or otherwise provided to the Contractor, whether or not intended under or for the purposes of the Agreement, and includes, without limitation, any information that identifies, relates to, describes, is capable of being associated with, or could reasonably be linked, directly or indirectly, with a particular consumer or household including, but not limited to, name, address, e-mail address, passwords, account numbers, social security numbers, credit card information, personal financial or healthcare information, personal preferences, demographic data, geographic location, marketing data, credit data, or any other identification data. For the avoidance of doubt, Authority's Data shall include, but not be limited to, (i) all "nonpublic information," as defined by the Gramm-Leach-Bliley Act (15 United States Code (U.S.C.) §6801 et seq.), (ii) personal information as defined by California Civil Code sections 1798.29, 1798.82, and 1798.140 (California Consumer Privacy Act of 2018, effective January 1, 2020) and/or (iii) personal data as defined by the EU General Data Protection Regulation (Regulation (EU) 2016/679). For the further avoidance of doubt, Authority's Data is not limited to proprietary or confidential information, and need not constitute trade secret information.
Authorized Designee	In addition to the Account holder, any person specifically identified by the customer to access the her/his account (e.g. spouse or assistant).
Authorized User	Authorized Users are Approved users that have role-based credentials to access the BOS such as an employee of the Contractor, employee of the Agencies, Third Party Service Provider, Business Partner, or contractor of the Agencies.
Automated Clearing House (ACH)	An electronic payment delivery system which allows payments or collection of funds electronically through the ACH network.
Automatic Call Distribution (ACD)	A system commonly used to handle a large volume of inbound calls, as further defined in the Scope of Work and Requirements.
Back Office System (BOS)	All Hardware, hosted services, cloud-based services, Equipment, Software, Interfaces, Third-Party Service Providers and Business Partners services, and other Work, that in combination provide the technology, functionality and processes required in the Scope of Work and Requirements.
Back Office System (BOS) Maintenance	Work required to be performed as set forth in Volumes I and II of the Scope of Work and Requirements in order to maintain, support, and administer the BOS.
Back Office System (BOS) Requirements	Work required to be performed as set forth in Volumes I, Volume II, and Volume IV included as Exhibits B through D of the Agreement.
Bank Account	A customer account with a bank whereby they may deposit and withdraw money.
Banking Services	Depository accounts into which merchant and other deposits are made. The Agencies have multiple depository accounts depending on the payment method (e.g. Credit Card payments, checks and cash) and

Term	Definition
	what the payment is for (e.g., prepaid tolls and violation payments). The Agencies have selected and contracted with a Banking Services provider.
Baseline Implementation Schedule	The Implementation schedule submitted for Authority's Approval within fifteen (15) Calendar Days of the Effective Date, based on the Contractor's preliminary Implementation Schedule included in the Agreement.
Bond	A security for performance or payment provided in accordance with the terms of the Agreement, Article 13, Bonds.
BOS Acceptance	Completion and Approval of the BOS testing and other milestones as set forth in Agreement Article 23, Acceptance and in the Scope of Work and Requirements.
Business Continuity	Continuance of the Authority's CSC Operations in the event of serious incidents or disasters such that the Agencies are able to recover to an operational state and proceed with Operations quickly and efficiently.
Business Day	A weekday, excluding the Authority's observed Holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 pm (local Pacific time).
Business Rules	A set of operational and system rules that detail how the BOS processes, CSC Operations, and the Authority's FasTrak program operates.
Calendar Day(s)	Every day, including weekends and Authority's observed Holidays, beginning at 12:00:00 a.m. and ending at 11:59:59 pm (local Pacific time).
California Toll Operators Committee Agency (CTOC Agency)	The California Toll Operators Committee (CTOC) is a collaborative organization composed of California's toll facility operators/owners of which the Agencies are members. CTOC is the primary resource for Interoperability and coordination among tolling facilities, and education and advocacy regarding tolling in California.
Case(s)	Work items that are tracked within a Case management system.
Certified Disposal Service Provider	Third-Party Service Provider certified to dispose of transponders with batteries identified for disposal.
Change	Modification, addition, deduction, or suspension of Work pursuant to Article 16, Changes.
Change Control Board	Authority representatives responsible for planning, controlling and monitoring Approved changes to the BOS in which the Contractor shall participate.
Change Order	See "Amendment".
Check 21	The Check Clearing for the 21 st Century which allows the recipient of the original paper check to create a digital version of the original check, a process known as check truncation, into an electronic format called a "substitute check", thereby eliminating the need for further handling of the physical document.
Civil Judgment	The final order of a court in a civil lawsuit.
Clean Air Vehicle	A designation provided by the California Air Resource Board (CARB) and decals by the California Department of Motor Vehicles (DMV) which

Term	Definition
	identifies a vehicle as a low emission vehicle which may be privy to discounts and/or use of the carpool or Express Lanes.
Collection Agency	A Third-Party Provider provided by the Contractor engaged in the collection of debts on behalf of the Agencies.
Collections	The activities that occur when a debt has been sent to the Collection Agency.
Collections Placement	A customer account or Violator account debt, grouping of unpaid toll transactions/trips, grouping of unpaid Violation transactions/trips, or unpaid Violation Notice(s), placed with a Collection Agency in accordance with the Business Rules.
Commercial Off-the-Shelf	Commercially available off-the-shelf Hardware and Software that is sold to the general public in the same precise form and requires little to no modification to use.
Configurable	Functionality provided such that changes to the related thresholds, values, methods, parameters and/or settings shall not require additional Software development and Software testing effort. Verification of the change for this purpose is not considered testing. This same meaning applies to all variations, e.g. Configured.
Contract Deliverables Requirements List (CDRL)	The document developed and maintained by the Contractor that identifies and tracks the status of all deliverables/submittals on the Project.
Contractor	The person, firm, corporation or entity undertaking the execution of the Work with whom the Agencies have entered into an Agreement, including Subcontractors.
Convenience Plan	Account plan that allows customers to pay a one-time lifetime fee (Configurable) at the time of account establishment in lieu of monthly fees.
Corrective Action Plan	A plan to be developed by the Contractor 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.
Courtesy Credit	Credit given to customers due to an inconvenience experienced which cannot be associated with a specific Violation, transaction/trip or fee.
Credit Card	Card issued by a financial company giving the holder an option to borrow funds, with eligible Credit Cards on this Project as identified in the Scope of Work and Requirements.
Credit Card Update Service Provider	A Third-Party Provider provided by the Contractor that automatically updates customer Credit Card information (for example, updating expiration dates on expired cards).
Customer Satisfaction Survey	A service provided by a Third-Party Provider for Customer Satisfaction Surveys focused on improving customer interactions by measuring customer perceptions of how well the Contractor delivers on the critical business functions.

Term	Definition
Customer Satisfaction Survey Provider Subcontractor	Third Party Provider provided by the Contractor that performs Customer Satisfaction Surveys.
Customer Service Center (CSC)	The place or places of businesses and Facilities that provide for all Operations activities required by the Agreement.
Customer Service Center Operations or Operation	Work, including services, and activities performed, such as customer support, account management, and violations/payment processing and which in total make up the CSC Operations in accordance with and as further set forth in the Scope of Work and Requirements.
Debit Card	Payment mechanism similar to a Credit Card, but unlike a Credit Card, the payment funds come directly from the user's bank account when performing a transaction.
Deliverable(s)	All documentation and any items of any nature submitted by the Contractor to the Agencies for review and Approval pursuant to the terms of this Agreement and the Scope of Work and Requirements. See "Submittal".
Desktop Environment	Any and all Equipment, computers, and peripherals necessary for CSC personnel to perform their job duties within their workspace.
Disaster Recovery	The process of re-establishing and making available the BOS due to an event which renders it partially or fully inoperable, as further set forth in the Scope of Work and Requirements.
Disentanglement	The process by which the Contractor provides an orderly transition of Work at end of Agreement, for whatever the reason, in accordance with Article 36, Transition and Succession, and the Scope of Work and Requirements.
Drivers Privacy Protection Act (DPPA)	18 US Code, Section 2721, which serves to protect the privacy of personal information assembled by states' departments of motor vehicles
Effective Date	The date the Agreement commences and Contractor is authorized to commence Work.
Electronic Document Management System (EDMS)	The Contractor-provided document repository which is used as the master repository for all Project documentation.
Electronic Toll and Traffic Management (ETTM) System	The lane systems and hardware and the Roadway Support Systems and all associated systems, hardware and components on the 405 Express Lanes. The ETTM Systems will communicate with the BOS for purposes of toll collection.
Electronic Toll and Traffic Management (ETTM) System Contractor	The ETTM System for the 405 Express Lanes, unless otherwise noted to refer to the contractor providing these services on the 91 Express Lanes.
Eligible Surety	Provider of performance and payment bonds that meets the eligibility requirements established in Article 13, Bonds.
End of Agreement Transition Plan	A Contractor-developed plan which addresses how the Contractor will support the Agencies and the Contractor's successor to facilitate a

Term	Definition
	seamless transition and Disentanglement upon termination or expiration of the Agreement.
Enhancement	Any change that provides new and significant Software or Hardware functionality, above that specified in the Scope of Work and Requirements and Agreement and is not an Upgrade or Update.
Equipment	An all-inclusive term to mean the Hardware, components, associated peripherals, associated firmware, electrical and other materials and supplies necessary to provide Work pursuant to the Agreement and Scope of Work and Requirements, inclusive of all solutions, including any Facility on-premise, hosted or cloud-based Equipment or Hardware.
Escheatment	Unclaimed funds that are sent to the State in accordance with current California law and Authority's policies.
Escrow	The depository for Contractor Intellectual Property agreed-to in accordance with the terms of Agreement Article 25, Intellectual Property and Article 26, Contractor Intellectual Property Escrow.
Escrow Agent	The company with whom the Agencies and Contractor enter into an Escrow Agreement.
Escrow Agreement	Agreement entered into with Escrow Agent, Contractor, and Agencies for purposes of depositing and storing Contractor Intellectual Property in accordance with Article 25, Intellectual Property and Article 26, Intellectual Property Escrow.
Event of Default	A material breach of the Agreement as detailed in Agreement Article 21, Default.
Evidence Package	The supporting documentation supplied by the BOS to support the Agencies when a customer is granted an Administrative Review or is taken to court for non-payment of tolls and applicable fees and a review has been scheduled.
Excessive I-Tolls	A Configurable threshold, which when exceeded, initiates the creation of a Flag on the license plate/transponder, which may result in a Notification and additional toll amounts or fees.
Excessive I-Toll Notification	Notification to a customer that their vehicles is receiving an excessive number of I-Tolls.
Existing BOS and CSC Operations Provider	The provider of current BOS and CSC Operations Services.
Express Lanes	A generic term used to describe lanes within existing expressway, arterial highway facilities or lanes comprising a separate facility where multiple operational strategies, including pricing, may be utilized and actively adjusted as needed for the purpose of achieving pre-defined performance objectives.
Express Lanes Facility	A Toll Facility that is comprised of Express Lanes. In the case of this Agreement, an Express Lane Facility is the 405 Express Lanes.
Facility(ies)	The Authority's provided buildings in which the CSC Operations Work is performed.
FasTrak®	Trademarked electronic toll system that allows customers to use any toll road, bridge, or express lane in California without stopping to pay.

Term	Definition
Final Acceptance	Final Acceptance of the Implementation Phase will be considered by the Agencies to have occurred, when the conditions for Final Acceptance set forth in Article 23, Acceptance have been met.
Financial Account	A subledger account designed to aggregate Financial Transactions related to multiple accounts that enables the Agencies to record Financial Transactions in its general ledger system.
Financial Transaction	A toll transaction/trip, replenishment or a financial adjustment. A financial adjustment is any transaction that is not a payment, a toll, a fee or a fine, which changes the balance in a customer's account.
Fiscal Year	The financial period for the Agencies, defined as July 1 through the subsequent June 30th.
Flag(s)	A mark that signals a particular condition or status or that an event has occurred. The Flag is said to be set when it is turned on. Flags may be related to a specific account(s) or transaction(s), or may relay information to Authorized Users accessing the account, or they may direct the BOS to take some form of action.
Force Majeure	The circumstances as defined in the Agreement, whereby a party is excused from meeting a requirement(s) specified in this Agreement as further set forth in Article 73, Force Majeure.
Fulfillment	The process of delivering a transponder to a customer.
Go-Live	The date on which revenue operations commence; when the BOS has been commissioned and the Contractor's operation of the CSC has commenced, in accordance with the Scope of Work and Requirements.
Guaranteed Completion Date	The date set forth in the Approved Baseline Implementation Schedule upon which Contractor agrees the BOS will Go-Live, and for which Contractor shall be subject to liquidated damages for failure to meet such date.
Hardware	See "Equipment".
Holiday(s)	Days that are designated by the Agencies as Holidays for purposes of this Agreement.
Image Toll (I-Toll) Transaction/Trip	Initially an Image-Based Transaction/Trip created at the lane level, but which is subsequently determined to be associated with a valid transponder account and is further processed as such.
Image-Based Transaction/Trip	A transaction/trip that is originated in the lane, using image capture technology (as opposed to a Transponder-Based Transaction/Trip).
Implementation Phase	The phase of the Project, which begins at the Effective Date and ends at System Acceptance, that includes but is not limited to, the BOS Design, development, installation, pre-Go-Live testing, transition, data migration, Go-Live and Acceptance Testing.
Indemnitees	Parties identified in the Agreement to be indemnified by Contractor as further set forth in the Agreement.
Initial Term	Term of the Agreement, excluding any extensions thereto.

Term	Definition
Insufficient Balance Threshold	Amount set by the Agencies at which the customer account is changed to invalid status and the transponder(s) is no longer accepted for toll payment.
Intellectual Property	All current and future legal and/or equitable rights and interests in know-how, patents (including applications), copyrights (including moral rights), trademarks (registered and unregistered), service marks, trade secrets, designs (registered and unregistered), utility models, circuit layouts, business and domain names, inventions, solutions embodied in technology, and other intellectual activity, and applications of or for any of the foregoing, subsisting in or relating to the Software, Work, Project and/or services. Without limiting the generality of the foregoing, Intellectual Property includes Software, Authority's Data, and information collected, stored, processed or analyzed.
Intellectual Property (IP) Materials	All current and future legal and/or equitable rights and interests in know-how, patents (including applications), copyrights (including moral rights), trademarks (registered and unregistered), service marks, trade secrets, designs (registered and unregistered), utility models, circuit layouts, business and domain names, inventions, solutions embodied in technology, and other intellectual activity, and applications of or for any of the foregoing, subsisting in or relating to the Software, Work, Project and/or Services. Without limiting the generality of the foregoing, Intellectual Property includes Software, Authority's Data, and information collected, stored, processed or analyzed.
Interface	A software program that facilitates data exchange from one component of a system to another or between separate systems and is generally documented in an Interface control document (ICD).
Interoperable (Interoperability)	A relationship between tolling agencies or entities where their systems are capable of capturing and transmitting transactions/trips generated on one agency's roads by customers of the other agency or entity. Generally, requires that reciprocity agreements between agencies and entities are in place to govern payments and reconciliation.
Interoperable Agency(ies)	Entities that have agreed to accept each other's transponders and/or license plates, to identify customers and settle payment. In the case of this Agreement, such entities will have entered into a reciprocity agreement which dictates the processes and payment policies, for example CTOC.
Investigative Review	Review of information provided by the motorist in dispute of a violation.
Jurisdiction (License Plate)	The governing entity, such as state or country that controls the issuing of a particular vehicle license plate and provides registered vehicle owner information.
Key Team Personnel	Contractor positions that are designated as most critical to performing and managing the Work in the RFP, Agreement, and the Scope of Work and Requirements, with associated specific conditions and responsibilities identified therein.
License Plate Status File (LPSF)	List of license plates listed on valid customer accounts belonging to the Agencies and Interoperable Agencies created in accordance with the current version of the CTOC ICD.

Term	Definition
Local Area Network	A computer network that interconnects computers within a limited area.
Lockbox	A service offered by a Third-Party Service Provider to companies in which the Lockbox company receives payments by mail and deposits them into the company's account and notifies the company of the deposit.
Lockbox Exceptions	Items received by the Lockbox that cannot be posted to an account because of the absence of information or a discrepancy in the information required to automatically apply the payment. Lockbox Exceptions are researched and resolved by the Contractor.
Lockbox Service Provider	A third Party Service Provider and Business Partner that may be used under the Agreement that receives and processes mailed payments related to customer Accounts and violations.
Maintenance and Software Support Services	Services to be performed by Contractor related to the maintenance of the BOS Hardware and network and monitoring, support and administration of the Software.
Maintenance	The Maintenance and related services required to be furnished by the Contractor, in accordance with the Scope of Work and Requirements
Maintenance Plan	Contractor deliverable detailing the comprehensive Maintenance approach, subject to Approval, as further set forth in the Scope of Work and Requirements.
Maintenance Services	See "Maintenance".
Merchant Service Provider	The Third-Party Provider provided by the Contractor who provide the services of the payment processor and acquiring bank for Credit Card payments.
Module	A group of functions developed simultaneously for specific tasks, such as a reporting Module, a security Module or a maintenance Module.
Money Services Provider	A retail location that provides customers the ability to add funds to their account, pay invoices or Violation Notices or purchase a transponder.
Monthly Performance Scorecard	A component of the Performance Report which details the Contractor's Operational performance measurement and points, as described in the Scope of Work and Requirements.
National Change of Address (NCOA)	The NCOA Link Product is a secure dataset of permanent change-of-address (COA) records consisting of names and addresses of individuals, families and businesses who have filed a change of address with the USPS.
Near Field Communication	A set of communication protocols that enable two electronic devices to establish communication by bringing them within proximity of each other.
Notice	A formal communication made pursuant to the terms of the Agreement, Article 11, Notices, addressing legal and contractual matters, not applicable to daily Implementation and Operation and Maintenance Phase communications.
Notice of Closeout	Notice sent to Contractor by Authority closing out the applicable Phase.
Notice of Default	A Notice sent to the Contractor declaring an Event of Default.

Term	Definition
Notice of Delinquent Toll Evasion Violation	A Notice that is sent to Violator 30 days after Notice of Toll Evasion Violation and includes a late penalty.
Notice of Publication of Unclaimed Funds	Notice placed to advertise that unclaimed checks will be escheated to the State.
Notice of Termination	A Notice sent to Contractor initiating termination of the Agreement.
Notice of Toll Evasion Violation	Image-Based Transactions/Trips that do not post to a Registered account and are not paid within the specified period are considered violations. A Notice of Toll Evasion Violation is sent to Violators and it will contain violations a fee amount and a penalty.
Notice to Proceed for Ramp Up/Customer Services	Notice by the Authority that Contractor shall commence the Work associated with Ramp Up/Customer Services as further set forth in the Scope of Work and Requirements.
Notification(s)	Communication via all the methods supported by the BOS between the Agencies and customers, as set forth in the Requirements. Examples include statements, invoices, Violation Notices and letters to customers and Violators.
Occupancy Declaration	The occupancy declaration that the driver makes when choosing between the HOV and non-HOV lanes at the 405 Express Lanes Toll Zones.
Occupancy Declaration Correction List	A file-based electronic list developed by the Contractor for each Toll Facility which identifies vehicles which the ETTM System ODS has found problematic in properly verifying the occupancy, based on customer disputes or CSC Operations quality control.
Occupancy Detection System	ETTM System equipment which captures and analyzes an image(s) of the passenger compartment to determine the number of occupants. This result may be compared with the number of occupants declared by the customer.
Occupancy Setting	Setting on the FasTrak transponder to designate the number of occupants travelling in the vehicle for the purpose of identifying as a high occupancy vehicle (HOV).
Offeror	A firm that has submitted a Proposal for this RFP.
Operational Alert Notification	Role-based signal, prompt or message sent to BOS Operational personnel, notifying them of a BOS condition that requires their attention or an issue that they should be aware of.
Operational Readiness Demonstration	Demonstration conducted by the Contractor in accordance with the Scope of Work and Requirements, which will prove that the BOS and the CSC Operations are ready to Go-Live.
Operations and Maintenance Phase	The Phase beginning upon Go-Live through the end of the Agreement.
Operations Plan	The Operations Plan is a comprehensive document provided by the Contractor that details how the CSC will be managed and operated in accordance with the Scope of Work and Requirements, subject to Approval.
Optical Character Recognition (OCR)	A software process that automatically recognizes license plate characters without requiring human intervention and which, in this

Term	Definition
	application, extracts and provides the license plate numbers and Jurisdiction from the image of the license plate.
Option Term 1	First Agreement extension period executed at Authority's sole discretion pursuant to Article 6, Term of Agreement.
Option Term 2	Second Agreement extension period executed at Authority's sole discretion pursuant to Article 6, Term of Agreement.
Orange County Transportation Authority (OCTA)	The Orange County Transportation Authority owns and operates the segment of the 405 Express Lanes in Orange County and is the agency responsible for this procurement and Agreement. Also referred to as "Authority".
Party	Any signatory to this Agreement.
Payment Schedule	Milestone payment schedule for completed and Approved Deliverables and Submittals set forth in RFP Exhibit H, Contractor Price Proposal, and Agreement Exhibit _ that constitutes Authority's full payment obligations for the Implementation Phase.
Performance Management and Monitoring System (PMMS)	An automated, fully integrated system that includes performs tasks including but not limited to: monitors the status of Equipment, processes and systems in real time, records failures, notifies Maintenance personnel, generates and tracks work orders, maintains preventative Maintenance schedules, generates repair history, and maintains parts inventory and asset management, all in accordance with the Scope of Work and Requirements.
Performance Measures	The metrics established in the Scope of Work and Requirements used for determining adherence to performance requirements.
Performance Report	A report to be developed monthly by the Contractor detailing the Contractor's performance against each Performance Measure, with details related to the failure events that resulted in the non-compliance, provide in accordance with the Scope of Work and Requirements.
Personally Identifiable Information (PII)	Sensitive personal information as identified in the Security Standards and established by relevant applicable law, as further set forth in the Agreement and Scope of Work and Requirements.
Pervasive Defect	A failure determined by the Agencies to be recurring or repetitive as further set forth in Article 30, Defects/Failure.
Plan(s)	Contractor Deliverable submitted for Approval that identifies approach to a particular aspect of the Work, including but not limited to Transition, Training, Project Management, Staffing, Maintenance, System Support, Disaster Recovery, and Business Continuity Plans.
Plate Correction List	A file-based electronic list developed by the Contractor for each Toll Facility which contains license plate numbers that have been problematic for automated or manual image review and require special manual review and verification.
Plate Type	Categorization required by some states which issue more than one license plate with the same number/letter combination, thereby making the plate type the only differentiator.

Term	Definition
Point-of-Sale (POS)	Electronic terminal that allows processing of Credit Card payments at retail locations.
Positive Pay	A cash-management service employed to deter check fraud. A process by which checks issued by an entity are compared with those presented for payment. Any check considered to be potentially fraudulent is sent back to the issuer for examination.
Post(ing)	The recording of a transaction/trip on an account in the BOS.
Posting Day	The day of Posting to an account.
Preliminary Implementation Schedule	The Project Implementation Schedule provided by Contractor and included in the executed Agreement, which will be updated, further detailed and submitted by Contractor for Approval following Effective Date, in accordance with Agreement Article 7, Time and Schedule/Completion Dates and Scope of Work and Requirements.
Preventative Maintenance	Repairs, cleaning, adjustments and replacements of components as necessary to maintain the BOS equipment in normal operating condition.
Price Proposal	Offeror pricing provided in response to this RFP and in accordance with the instructions provided therein. Contractor Price Proposal will be included as an Exhibit in the executed Agreement.
Print/Mail Service Provider	Third-Party Service Provider provided by the Contractor that handles the printing and mailing of customer-related Notifications for the Agencies.
Processing Exception List	List of license plates and transponders used to identify transactions and images that require manual review and disposition prior to final processing due to known customer service and/or processing issues.
Project	The total Work set forth in the Scope of Work and Requirements and as further set forth and detailed in the Agreement.
Project Management Plan (PMP)	Deliverable submitted by Contractor for Approval used to guide Project execution, management and control, as further detailed in the Scope of Work and Requirements.
Project Manager	The Contractor's duly authorized representative designated to manage the Contractor's performance of the work in accordance with the Agreement.
Proposal	The entire submission made by an Offeror as a part of this RFP. Contractor's entire submission in response to this RFP incorporated into to the Agreement.
Protected Plate	A license plate registered to a motorist affiliated with federal, state or local agencies who are allowed to shield their addresses under the Confidential Records Program.
Pure Zero Emission Vehicle	A pure zero emission vehicle is a vehicle that emits no exhaust gas from the onboard source of power as determined by the California Air Resources Board.
Quality Assurance (QA)	A process which occurs after the final work product is complete, to ensure the work was completed as expected and required.
Quality Control (QC)	A process which occurs before a final product is produced or presented, to ensure the work product is accurate.

Term	Definition
Quick Response Code (QRC)	A machine-readable matrix barcode used to provide access to information via mobile tagging using a smartphone device.
Ramp Up/Customer Services	Work provided by Contractor upon a Ramp Up/Customer Services Notice to Proceed, providing services and Work prior to Go-Live of the 405 Express Lanes, as further set forth in the Scope of Work and Requirements.
Readiness for Go-Live	The milestone that indicates the BOS and CSC Operations have achieved the required predecessor steps and are ready to go into live, revenue operations, subject to Authority Approval.
Recovery Point Objective (RPO)	The maximum acceptable amount of data loss measured in time. It is the age of the files or data in backup storage required to resume normal operations if a computer system or network failure occurs.
Recovery Time Objective (RTO)	The duration of time and a service level within which a business process must be restored after a disaster in accordance with the Scope of Work and Requirements.
Refund Account	Bank Account(s) from which customer refunds are made. The Refund Account(s) is part of the Authority's Banking Services.
Region of Interest	A portion of an image that is filtered or isolated, typically used for license plate identification.
Registered	Registered is a term that applies to accounts that are proactively established by the customer and are typically associated with a valid transponder(s).
Registered Owner of Vehicle (ROV)	The party legally responsible for a vehicle at the time of the toll transaction in accordance with applicable state statutes and regulations.
Registered Owner of Vehicle (ROV) Lookup	The process of identifying the Registered Owner of Vehicle.
Registered Owner of Vehicle (ROV) Lookup Provider	Third-Party Service Provider provided by the Contractor that conducts out-of-state ROV Lookups.
Registration Hold	The process of preventing a vehicle from being registered, by contacting CA DMV or out-of-state DMV and notifying them to place a hold on a vehicle's registration due a toll Violation, in accordance with applicable state statutes and regulations.
Rental Car Service Provider	Either a rental car agency or a separate company that facilitates the vehicle identification, transaction exchange and payment processing between the toll agency and the rental car agency.
Report on Compliance (ROC)	Form to be completed by Credit Card merchants undergoing a PCI DSS (Payment Card Industry Data Security Standard) audit. The ROC form is used to verify that the merchant being audited is compliant with the PCI DSS standards.
Requirement(s)	Each of the required work activities in numbered form that the Contractor shall perform, including but not limited to technical, functional, Project management, Operations and Maintenance and Performance.

Term	Definition
Requirements Traceability Matrix (RTM)	The structured collection of information that identifies and track each of the requirements in the Scope of Work and Requirements, which is submitted by the Contractor for Approval by the Agencies and serves to track completion of design, development and testing.
Responsibility Matrix	The matrix that defines respective responsibilities of the Agreement parties and other interfacing third-party contractors.
Retailer(s)	A retail location that sells the Authority's transponders.
Revenue Day	The 24-hour toll collection day expressed from 00:00:00 a.m. to 11:59:59 p.m. in military time unless otherwise Approved during design. Provided In local Pacific time.
Scope of Work and Requirements	The Agreement documents incorporated as Exhibits B, Scope of Work and Requirements, that capture and define the Work activities, Submittals and Deliverables and performance that the Contractor must execute in performance of the Work.
Secure File Transfer Protocol	Secure File Transfer Protocol (SFTP) is a secure version of File Transfer Protocol (FTP), which facilitates data access and data transfer.
Security Standards	Standards enumerated in the Scope of Work and Requirements and Agreement related to physical, data and personal security and privacy, under which the BOS shall be designed, maintained and operate; and the CSC shall operate.
Self-Service Mobile Application	The mobile application that allows customers to create and manage accounts or pay invoices through an application installed on their mobile device.
Self-Service Website	The public website that presents Authority-provided information and allows customers to create and manage accounts, including adding funds to an account or paying Violations.
Sites	Any location where Work on this Project is conducted or performed.
Skip Trace	The process by which alternative contact information is gathered for a customer for which the account-holder or DMV provided information is not sufficient.
Skip Trace Service Provider	Third-Party Service Provider provided by the Contractor that gathers alternate contact information for customers.
Software	All computer programs, media, procedures, rules and associated documentation pertaining to the control and operation of the data processing and data storage for the BOS. Software includes all associated features and functions described in the Statement of Work and requirements, including all Agreement Change Orders, updates, derivative works, enhancements, modifications or upgrades thereto, and all error corrections, patches and bug fixes provided by the Contractor and which is made part of the BOS, as well as all related or ancillary data files, modules, libraries, tutorial and demonstration programs, and other components thereof, all source and object code, firmware and all documentation.
Special Access Plan	Payment plan which provides free or discounted toll rates for three or more riders per vehicle, motorcycles, pure zero-emission vehicles, vehicles with disabled veteran or disabled person license plates.

Term	Definition
SSAE-18	Statement on Standards for Attestation Engagements (SSAE) No. 18, Reporting on Controls at a Service Organization.
Standard Plan	Account plan which requires a monthly fee and provides for discounts for a configurable number of transactions per month (Configurable) and offers a discount (Configurable) for each tolled trip taken on the 91 Express Lanes, with a capped discount (Configurable).
State	The State of California.
Subcontractor	Any person, firm or corporation, other than the Contractor's employees, who contracts to furnish labor, or labor and materials, at the Site(s) or in connection with the Services, whether directly or indirectly, on the Contractor's behalf and whether or not in privity with the Contractor.
Submittal	See "Deliverable".
Supplier	Any person, firm, or corporation who contracts to furnish materials, equipment, or supplies for incorporation in or in connection with the Work.
Surety	Provider of the Bonds under the Agreement.
Tax Intercept	Violation debt, in Collections, can be placed with the California Franchise Tax Board (FTB). The FTB's program called the Interagency Intercept Collection (IIC) Program intercepts (offsets) refunds when individuals have delinquent debts owed to government agencies and California colleges. The Collection Agency administers this program on behalf of the Agencies.
Term	Length of the Agreement as set forth in Article 6, Term of Agreement, including the Initial Term and any extensions executed thereto.
Third-Party Service Providers and Business Partners	Entities which have a relationship with the Agencies and the Contractor to perform work and/or request that work be performed, such as collection companies.
Title 21	California Code of Regulation that provides the requirements for open compatibility specifications for a two-way communications protocol for automatic vehicle identification (AVI) including an initial set of Transaction Record Type codes mandated for statewide electronic toll collection use.
Toll Facility	The OCTA 405 Toll Facility.
Toll Rate Changeable Message Sign (CMS)	The signs installed before all entrances to the Express Lanes that display the rate information and variable text.
Toll Zone	The area which vehicles pass through, where information from automatic vehicle detection, license plate image capture, and automatic vehicle identification is captured and is used to create a transaction/trip.
Transaction/Trip Date and Time	The date and time the vehicle crosses through each Toll Zone.
Transaction/Trip Entry Date and Time	The date and time the vehicle entered a segment of the Express Lane.

Term	Definition
Transponder Status List (TSL)	List of valid transponders belonging to the Agencies and Interoperable Agencies created in accordance with the current version of the CTOC ICD.
Transponder-Based Transactions/Trips	A transaction/trip that is originated in the lane using transponder technology (as opposed to an Image-Based Transaction/Trip).
Unavailable	A Key Team Personnel member 's absence or inability to perform the Work that meets the conditions set forth in Agreement Article 5, Contractor's Personnel.
Uniform Resource Locator (URL)	The address of a web page.
United States Postal Service (USPS) Coding Accuracy Support System (CASS™)	A certification offered by the USPS to all mailers and software vendors to evaluate the quality of their address-matching software and improve the accuracy of their ZIP+4, carrier route, and five-digit coding.
United States Postal Service (USPS) Intelligent Mail Barcode	A 65-bar barcode applied to mail in the United States for tracking mail pieces.
Unregistered	Applies to accounts that are created using the information provided by the DMV, Registered Owner Lookup Provider or Affidavit of Non-Liability. May include more than one vehicle if the owner information is an exact match.
Update	Generally, refers to a patch released for existing Software to fix any existing bugs, errors, or security issues; can also provide support for new Hardware, as well as performance tuning. Updates are to be performed as a part of Operations and Maintenance at no additional cost to the Agencies in accordance with of the Agreement, including Article 28, Warranties.
Upgrade	Generally, refers to transforming existing Software to a new version; provides new features and functionalities rather than fixing existing bugs, errors or security issues. Upgrades are to be performed as a part of Operations and Maintenance at no additional cost to the Agencies in accordance with the Agreement, including Article 28, Warranties.
Violation	A Transaction which occurs when the vehicle was not registered to a valid FasTrak account and did not have a valid Transponder. Non-compliance with the Business Rules regarding toll payment generates a Violation Notice.
Violation Notice	The notification sent to a Violator as determined by the Business Rules and Approved design, in accordance with applicable laws, rules and regulations. Notice of Toll Evasion Violation and Notice of Delinquent Toll Evasion Violation are collectively referred to as Violation Notice(s).
Waiver Form	Formal submittal by Contractor requesting a performance deficiency be excluded from the non-performance calculation.
Walk-in Center (WIC)	Physical location which will provide in-person customer service (including transponder fulfilment, account replenishment, violation payment or account management).

Term	Definition
Wide Areas Network	Telecommunications network or computer network that extends over a large geographical distance/place.
Work	Includes, without limitation, all plant, labor, materials, Equipment, Systems, services, Software, licenses, leases, facilities, design, development, installation, testing, data transition and migration, training, Operations and Maintenance and other things necessary or proper for or incidental to carrying out and completing the Project in accordance with the terms of the Agreement.
Work Directive	Directive from the Agencies to perform or proceed with Work in accordance with Agreement Article 16, Changes.
Write-Off	A cancellation of a customer balance made as a result of a debt being deemed uncollectible or unworthy of pursuit. Items are eligible for Write-Off based on criteria and eligibility to be determined by the Agencies.

Acronyms

The following Acronyms shall have the following meanings:

Acronym	Meaning
ACH	Automated Clearing House
ACK	Acknowledgement
AD	Active Directory
ADA	Americans with Disabilities Act
AVI	Automatic Vehicle Identification
BCP	Business Continuity Plan
BOS	Back Office System
CAD	Computer Aided Design
Caltrans	California Department of Transportation
CCB	Change Control Board
CCTV	Closed-Circuit Television Camera
CDRL	Contract Deliverables Requirements List
COTS	Commercial Off-the-Shelf
CPA	Certified Public Accountant
CRF	Customer Review Form
CSC	Customer Service Center
CSR	Customer Service Representative
CSWRD	Conformed Statement of Work Requirements Document

Acronym	Meaning
CTOC	California Toll Operators Committee
DMV	Department of Motor Vehicles
DR	Disaster Recovery
DRP	Disaster Recovery Plan
DVAS	Digital Video Audit System
EEOC	Equal Employment Opportunity Commission
EMV	Europay, MasterCard and Visa,
ETL	Extract, Transform and Load
ETTM	Electronic Toll and Traffic Management
FFCRA	Federal Fair Credit Reporting Act
FIFO	First in First Out
FTP	File Transfer Protocol
GAAP	General Accepted Accounting Principles
GASB	Government Accounting Standards Board
GUI	Graphical User Interface
HOV	High Occupancy Vehicle
HTML	HyperText Markup Language
HTTPS	Hypertext Transfer Protocol Secure
ICD	Interface Control Document
ID	Identification
IEC	International Electrotechnical Commission
IEEE	Institute of Electrical and Electronics Engineers
IOP	Interoperability
IP	Intellectual Property
IP	Internet Protocol
IRS	Internal Revenue Service
ISA	Internal Security Assessor
ISO	International Standards Organization
I-Toll	Image Toll
IT	Information Technology
ITS	Intelligent Transportation Systems

Acronym	Meaning
IVR	Interactive Voice Response
LAN	Local Area Network
LOS	Level of Service
MS	Microsoft
MSP	Merchant Services Provider
NACK	Negative Acknowledgement
NCOA	National Change of Address
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
NTP	Notice to Proceed
OCR	Optical Character Recognition
OCTA	Orange County Transportation Authority
OSHA	Occupational Safety and Health Administration
PCI	Payment Card Industry
PCI-DSS	Payment Card Industry Data Security Standards
PDF	Portable Document Format
PII	Personally Identifiable Information
PIN	Personal Identification Number
PMBOK	Project Management Body of Knowledge
PMI	Project Management Institute
PMMS	Performance Management and Monitoring System
PMP	Project Management Plan
POS	Point-of-Sale
PZEV	Pure Zero Emission Vehicle
QA	Quality Assurance
QC	Quality Control
QSA	Qualified Security Assessor
RDBMS	Relational Database Management System
RFP	Request for Proposal
RMA	Return Merchandise Authorization
ROC	Report on Compliance

Acronym	Meaning
ROI	Region of Interest
ROV	Registered Owner of Vehicle
RPO	Recovery Point Objective
RSS	Roadway Support System
RTM	Requirements Traceability Matrix
RTO	Recovery Time Objective
SDDD	System Detailed Design Document
SFTP	Secure File Transfer Protocol
SME	Subject Matter Expert
SMS	Short Message Service
SOW	Scope of Work
SSAE-18	Statement on Standards for Attestation Engagements No. 18
TSL	Transponder Status List
UPS	Uninterruptible Power Source
URL	Uniform Resource Locator
USPS	United States Postal Service
WAN	Wide Area Network
WBS	Work Breakdown Structure
WIC	Walk-in Center
XML	Extensible Markup Language

EXHIBIT B: SCOPE OF WORK AND REQUIREMENTS

Exhibit B

Scope of Services

Initial Draft
4/23/2020

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1. INTRODUCTION

The Orange County Transportation Authority (“OCTA”) currently operates the Orange County portion of the Express Lanes on SR 91. The I-405 Express Lanes Back Office System (BOS) and Customer Service Center (CSC) Operations Project (Project) is for the implementation, operations and maintenance of a new BOS and CSC Operations to support the I-405 Express Lanes, which are scheduled to open to traffic in early 2023. This Scope of Work includes the Project’s technical requirements to be performed by the toll systems integrator and customer service operations provider (Contractor).

Kapsch TrafficCom USA (“Kapsch”) is separately contracted but serves as the Electronic Toll and Traffic Management (ETTM) System Contractor for the I-405 Express Lanes. The ETTM System will provide fully formed Transponder and Image-Based Trips to the BOS. Substantial testing and both technical and operational coordination will be required throughout the Term of the Agreement.

A new I-405 CSC and WIC facility, provided by the Authority, near the I-405 corridor will serve as the main facility for the Contractor’s direct customer service staff and CSC Operations and will house other OCTA contractors as well. A separate walk-in-center (WIC) supporting both the 91 and I-405 facilities is located at the existing OCTA Store WIC, which is adjacent to the OCTA offices in the City of Orange and will be staffed by OCTA employees using desktop computers and peripherals provided by OCTA. However, the Contractor will support the initial setup, security, Interface and ongoing maintenance of the I-405 BOS application on these desktop computers as required.

The Authority will not provide data center space for the I-405 BOS and the Contractor is required to provide a hosted or cloud-based implementation in accordance with the Requirements.

All definitions and acronyms for this Scope of Work and Requirements are included as Exhibit A.

The Requirements are numbered to track Contractual obligations and any changes which may occur during the Project. Many of the Requirements contain underlying lists of specific items and required database fields. The intent of these “including but not limited to” lists is to indicate the intent and scope of the requirement. During design the naming and number of items and fields will vary; however, all items and fields shall be addressed by the BOS unless the Contractor is formally relieved of the requirement by the Authority.

1.1. Project Timing

Related tolling projects and timing include:

- OCTA has selected OC 405 Partners to design and build the I-405 Improvement Project, which includes the I-405 Express Lanes. The project is expected to be open to traffic in early 2023.
- OCTA has selected Kapsch to provide the I-405 ETTM System. Kapsch and OC 405 Partners will coordinate the installation and testing of the ETTM prior to the beginning of revenue collection.
- Approximately 120 days prior to the anticipated Go-Live and I-405 revenue operations commencement, the Contractor will receive Notice to Proceed for Ramp-up/Customer Services, and the Contractor must reach several milestones 30 days thereafter as detailed in

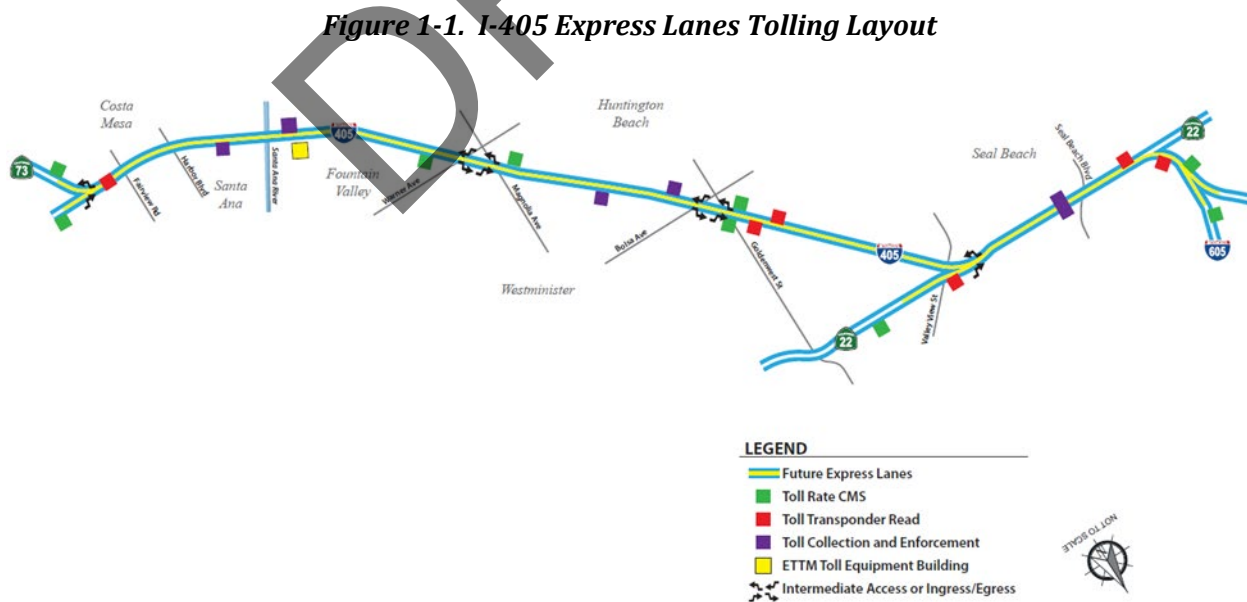
the Requirements, including the provision of portions of the BOS and the Self-Service Website for account creation, ordering of transponders and customer communications.

- At the Authority's direction, transponders will be mailed approximately one (1) month prior to anticipated Go-Live and I-405 revenue operations commencement and the Contractor shall be responsible for processing Interoperable transactions and handling other CTOC agency inquiries from that point forward.
- Providing Notice to Proceed for Ramp-up/Customer Services also allows the Contractor guidance on the anticipated Go-Live date for the purposes of mobilizing for CSC Operations and mobilizing within the new CSC facility.

1.2. I-405 Express Lanes

OCTA in cooperation with the California Department of Transportation (Caltrans) is widening the San Diego Freeway (I-405) between State Route 73 (SR-73) and Interstate 605 (I-605). The project will improve 16 miles of I-405 between the SR-73 freeway in Costa Mesa and I-605 near the Los Angeles County line. The project includes adding one regular lane in each direction between Euclid Street and I-605 and making improvements to freeway entrances, exits and bridges. In addition, the project will add the I-405 Express Lanes, incorporating the existing carpool lanes and a new lane in each direction between SR-73 and I-605. The I-405 Express Lanes will give solo drivers the choice to speed up their commute for a toll and give options for carpoolers to use the lanes for free. When the express lanes open, two-person carpools will pay a toll only during peak hours and carpools of three or more will be free at all times.

Figure 1-1: I-405 Express Lanes Conceptual Tolling Layout identifies the entry/exit, Toll Zone and Toll Read Site locations for the I-405 Express Lanes.



1.3. Support of New Toll Facilities

The BOS and CSC Operations shall be designed to support the future, potential addition of new OCTA Toll Facilities, such that the BOS does not require structural or fundamental changes at that time.

1.4. New I-405 CSC Facility

A new I-405 CSC and WIC facility, provided by the Authority, near the I-405 corridor will serve as the primary facility for the Contractor's direct customer service staff and CSC Operations and will house other OCTA contractors as well. Immediately after NTP, the Contractor will be responsible for working closely with the Authority in the design of the facility. With regards to the new facility, the following will be the responsibility of OCTA:

- 1.A cquisition of the building;
- 2.B uilding design (primary);
- 3.B uilding construction permitting;
- 4.F acility buildout;
- 5.C ubicles;
- 6.F urniture, desks and chairs;
- 7.F ile cabinets;
- 8.W alk-in Center furniture;
- 9.T raining room furniture;
- 10.St orage cabinets and shelves;
- 11.Sp ace at I-405 CSC facility for storage of retained and/or sensitive paper-documents;
- 12.CS C personnel lockers (if required);
- 13.Co mmunications closets;
- 14.Co nference rooms and tables;
- 15.La rge presentation screens within conference rooms;
- 16.Br eakroom furniture and appliances;
- 17.Al l power and network cabling;
- 18.Al l uninterruptable power and generators (including any on-going system/software maintenance agreements);
- 19.Re sponsibilities as described in Volume II, Section 1.1.1.8 Network, Communications, Telephony, Security and Surveillance;
- 20.CC TV surveillance equipment (including any on-going system/software maintenance agreements);
- 21.Ph ysical building security system (including any on-going system/software maintenance agreements);
- 22.Ja nitorial services;
- 23.Tr ash pickup;
- 24.Bu ilding maintenance and
- 25.Ad ditional buildout and provision of items above to support growth.

Contractor – All items below shall be provided within the Implementation and Operations and Maintenance Phases pricing.

- 1.D esktop computer environments;
- 2.A ll phone systems (internal operations and direct customer support);
- 3.D esktop computer environments and phone systems for two (2) permanent Authority personnel;

- 4.D esktop computer environments and phone systems for an additional three (3) Authority-designated oversight personnel during mobilization of the facility and during Operational and Acceptance Testing;
- 5.A ll training room desktop computer environments and equipment, including presentation screens;
- 6.A ll network equipment (routers, firewalls, switches, hubs, gateways, etc.);
- 7.R esponsibilities as described in Volume II, Section 1.1.1.8 Network, Communications, Telephony, Security and Surveillance;
- 8.A ll consumables;
- 9.P aper shredding services;
- 10.Po int of contact and management of all OCTA provided building maintenance, power and generator maintenance or servicing, trash pickup and janitorial services;
- 11.Po int of contact and coordination of any additional buildout to support growth (at no additional labor costs to the Authority);
- 12.Ph ysical human security as deemed necessary by the Contractor;
- 13.Re ceptionist or walk-in center greeter as deemed necessary by the Contractor and
- 14.Pr ovision of items above to support growth.

1.5. Back Office Systems and CSC Operations Statement of Work

In this Request for Proposals (RFP), the Authority is requesting written technical and Price Proposals from qualified Proposing Contractors ("Offerors") interested in providing BOS and CSC Operations. The Project includes the design, development, testing, installation, operations and maintenance of a complete and integrated BOS and CSC Operations that meets the needs of OCTA as specified in the Scope of Work and Requirements.

The BOS functionality which shall be provided, implemented, operated and maintained by the Contractor include but are not limited to the following:

- Account management;
- Self-Service Website;
- Self-Service Mobile Application (Phase II and optional);
- Customer communications and Notifications;
- Case management;
- Payment processing;
- Transponder inventory management;
- Financial management, reconciliation and settlement;
- Initial CSC-based collections;
- Collections Placements;
- Printing and mailing;
- Violation processing;
- Vehicle Registration Hold processing;
- Post-contact customer satisfaction surveys;
- Searches and reporting;
- Data warehouse (Phase II and optional);
- BOS and CSC performance monitoring and reporting;
- Interfaces to all Third-Party Service Providers and Business Partners and
- Interface monitoring and reconciliation.

BOS Hardware, systems and services which shall be provided, implemented, operated and maintained by the Contractor include but are not limited to the following:

- BOS production environment;
- Multiple supporting computing environments;
- Desktop Environments;
- CSC equipment;
- Customer contact systems;
- Automatic Call Distribution (ACD), Interactive Voice Response (IVR) and telephony systems;
- Network equipment;
- Network and systems monitoring systems;
- Data center and other identified equipment;
- Disaster Recovery (DR) and Business Continuity systems;
- Training systems and
- Capability to support work-at-home CSRs and operations and in accordance with the Approved Disaster Recovery and Business Continuity Plans. For example, during an event similar to the COVID-19 outbreak.

Third-Party Services which shall be provided and managed by the Contractor include but are not limited to the following:

- Collections Agencies - two (2);
- Registered Owner Identification (ROV) Lookup Service Provider;
- Print/Mail House Provider (optional at Contractor's discretion);
- Lockbox Service Provider (optional at Contractor's discretion);
- Customer Satisfaction Survey Provider Subcontractor;
- Payment Card Industry (PCI) Qualified Security Assessor Services (or qualified Internal Security Assessor (ISA));
- Merchant Service Providers - two (2) and
- Off-Site Data Storage Provider.

1.5.1. Contractor Implementation Phase Responsibilities

During the BOS and CSC Operations Implementation Phase (from Notice to Proceed until Go-Live of the BOS and CSC Operations) the Contractor shall be responsible for the following, including but not limited to:

- Implementation of BOS server environment at Contractor provided location;
- Design inputs to the new I-405 CSC facility;
- Support of I-405 BOS access from the current OCTA Store WIC;
- Staffing of all BOS support and CSC Operations;
- Operational planning and transition of the existing operations;
- BOS implementation and testing;
- Facilitation and participation in meetings and coordination with the Authority, the ETMM System Contractor and existing and new Third-Party Service Providers and Business Partners;
- Existing and new Third-Party Service Providers and Business Partners Transition Services;
- Contractor required additional build-out/fit-out of the Authority-provided facilities;
- Provision of all additional Contractor required furniture and furnishing required for the CSC;
- Provision of all required CSC office equipment;
- Development of all plans and documentation described herein;
- Development of all CSC standard operational procedures (SOPs);

- Compliance with all Security Standards;
- Compliance with all Approved plans;
- Development of all training material;
- Conducting training of all Contractor and Authority's staff;
- Learning and adhering to the Authority's processes, procedures, Business Rules and policies relative to Express Lanes operations and financial administration;
- Establishing direct processor agreements with California and Arizona DMVs;
- Demonstration of operational readiness and
- Numerous other coordination, planning and preparation activities.

1.5.2. Contractor Operations and Maintenance Phase Services

After commencement of CSC Operations (the "Operations and Maintenance Phase"), the Contractor's Operational responsibilities include but are not limited to:

- Operational activities related to the functional use of the BOS:
 - Account establishment, maintenance and closures;
 - Customer service, including violation-related activities, via phone, mail, email, fax, text messaging, chat and in-person;
 - Provision of customer support for problems with customer interfaces;
 - Payment and refund processing;
 - Credit Card processing, including authorizations, refunds and reconciliation;
 - Production of all customer Notifications;
 - Inbound and outbound mail processing;
 - Sending e-blasts to customers through the email system and at the direction of the Authority;
 - Return mail processing;
 - Violation payment processing;
 - Case creations and management;
 - Document imaging of incoming work (such as, customer communications) and outgoing work (such as, scanning checks before deposit);
 - Use of skip tracing services to acquire updated mailing addresses;
 - Transponder inventory management, including customer order Fulfillment support, transponder recall and recycling;
 - Customer dispute processing;
 - Coordination and support with resolution of disputed tolls and other issues with Interoperable Agencies;
 - Initial CSC-based collections;
 - Coordination with Collection Agency(ies) pursuing payment of debts owed by individuals or businesses, including payment processing and reporting;
 - Coordination with the DMV(s) for registration suspensions and/or holds, as well as releases once tolls, fees, and other charges are paid;
 - California Franchise Tax Board Tax Intercept support;
 - Bankruptcy support and associated account updates;
 - Investigative Review and Hearing support;
 - Financial management and reporting;
 - Reporting for CTOC and the Western Regional Hub;
 - All transaction and financial reconciliation activities;
 - All interface reconciliation activities;
 - Compliance with all Security Standards;
 - BOS performance management and reporting;

- CSC staff and process performance monitoring and reporting;
- Adding/removing/modifying users in the BOS and modifying the user-configurable elements of the telephony system such as call queue routing and message on-hold selections and
- Toll adjustment implementation.
- Operational activities not directly related to functional use of the BOS:
 - Complete BOS Operations and Maintenance and monitoring off all processes and interfaces;
 - Complete network and systems security monitoring and resolution of issues;
 - Compliance with all Security Standards;
 - Compliance with all Security Standards while operating with at-home agents, if required;
 - Complete PCI compliance, monitoring and resolution of issues;
 - Disaster Recovery (DR) and Business Continuity management;
 - Complete BOS Software Maintenance and Support;
 - Enhancement and upgrades to the BOS per the Requirements;
 - Enhancements to the BOS at Authority's direction;
 - Onsite technical support for Contractor's staff and Authority's staff;
 - Monitoring and optimization of Registered Owner of Vehicle (ROV) identification processes;
 - Monitoring of incoming and outgoing mail services, including address correction and update;
 - CSC customer service staffing and operational management;
 - CSC Work processing and management;
 - CSC facility maintenance not covered by the Authority;
 - On-going recruitment and management of the personnel required to operate the CSC and meet the Requirements of this Agreement;
 - On-going training of all Contractor staff and Authority's staff;
 - Physical security of the operations facilities, funds, personnel, and equipment;
 - Payment Card Industry Data Security Standards (PCI DSS) compliance;
 - Provision of audit(s) performed by an independent Qualified Security Assessor (or qualified Internal Security Assessor (ISA));
 - Compliance with all National Automated Clearing House Association (NACHA) requirements;
 - Support for the Authority's audits of BOS and CSC Operations;
 - Management of Customer Satisfaction Survey information;
 - Production and distribution of customer materials;
 - Distribution of transponders, mounting strips;
 - Distribution of non-BOS generated customer notifications by mail;
 - Annual SSAE 18 Type II performed by independent auditor;
 - Paper document storage (at I-405 CSC) and destruction and records management;
 - Quality Control (QC) and Quality Assurance (QA) activities for the CSC;
 - Quality review of BOS-generated notifications;
 - Quality review of image processing using the ETTM System-provided tool;
 - Assist with internal/external audits;
 - Assist with data collections/analysis stemming from litigation and
 - Assist with insurance/risk management activities.

1.6. Phase II Services

The following services shall be included in Phase II of the Work which will commence after the BOS Acceptance. Optional items are at the Authority's discretion to implement:

- Self-Service Mobile Application (Phase II and optional);
- Data warehouse and data analytics/business intelligence (Phase II and optional) and
- Collection Agencies direct access to BOS.

1.7. Future Functionality

The following functionality shall not be assumed for the base Agreement, but should be considered as potential future functionality:

- Occupancy Detection System (ODS) Integration;
- Integration with Money Service Provider;
- Customer invoicing prior to the violation process and
- Adherence to national Interoperability.

1.8. Services Not Included

The services procured under this Agreement *does not* include:

- ETTM Systems;
- Trip building;
- Image review services for the purpose of trip building (QA/QC reviews are required) and
- Provision of Retail Transponder Distribution Provider.

1.9. Pass Through Costs

The following items and Services shall be provided by the Contractor, with costs passed through to the Authority via invoice:

- Postage (not including any efforts, mail-house costs or other costs required to obtain the postage rate);
- Skip-Tracing;
Transponder Shipping Supplies/Materials including envelopes, sealing wafers, special inserts, and stickers and
- Facilities related incidental costs as directed and Approved by the Authority.

1.10. Direct Payment Items

The following items and Services shall be entered into the Authorities accounts payable weekly batch by the Contractor for direct payment from the Authority to the vendor and not the paid for by the Contractor:

- Welcome/Transponder Kits;
- Transponder readers and programmers, if pre-approved by the Authority and
- Domain Names and Uniform Resource Locators (URLs). Does not include any related software or licenses related to security and/or encryption (for example, secure socket layer certificates).

Exhibit B

**Volume I: Project Management and
Controls**

Draft
4/23/2020

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1. PROJECT MANAGEMENT

1.1. Project Management and Control

The Project is divided into two overlapping phases: The Implementation Phase (from Notice to Proceed until BOS Acceptance) and the Operations and Maintenance Phase (after commencement of CSC Operations through the end of the Agreement).

1	The Contractor shall provide all management, supervisory, financial and operations staff, including qualified management, professional, technical and clerical personnel, to professionally design and implement the BOS and operate and administer the Authority's operations in a manner that meets all required performance criteria. The Contractor shall put in place the organizational structure and staffing required to meet these Requirements.
2	The Contractor shall perform and provide all services in accordance with all applicable laws, rules, regulations, ordinances and in compliance with all applicable Authority policies. All Plans and procedures prepared by the Contractor shall be Approved by the Authority, as set forth in these Requirements.

1.2. Project Management Plan (PMP)

The Contractor shall develop and employ a Project Management Plan (PMP) in accordance with Project Management Institute (PMI) Project Management Body of Knowledge (PMBOK) latest edition that is sufficiently detailed to enable the Authority to review and confirm that the Contractor has the necessary management, staff and controls in place to meet the Agreement Requirements

The PMP describes how the Contractor shall deliver, implement and manage the Project, including staffing, scheduling and communication procedures for controlling all correspondence, Submittals and other communications between the Contractor and the Authority, as well as communications with other third-party entities. The PMP shall be in accordance with system engineering methodology wherever applicable.

3	The PMP shall include, but is not limited to:
	<ul style="list-style-type: none"> • Project scope and key Deliverables, tracked using a numbered Contract Deliverables Requirements List (CDRL); • a description of the staff management and organization of the Project; an organization chart; identification of Key Personnel and their associated responsibilities, and identification of the resources to be used in fulfilling the Requirements; • a description of Project planning, documenting and reporting methods to be utilized, both for use within the Contractor's staff and externally with the Authority; • approach to issue management, including communication, escalation and resolution of Project issues with the Authority; • approach to communication management, including meeting schedules and team meetings;

	<ul style="list-style-type: none"> the format of the Implementation Phase monthly progress report; inclusion of the Approved Baseline Implementation Schedule; a description of the process for reporting and tracking the Approved Baseline Implementation Schedule and Project performance; approach to change control management, consistent with Agreement Requirements, including a description of the process for documenting and submitting change requests, the Approval process and how the change control management approach will be integrated into day-to-day Project management; process for resolution if a change request scope and cost proposal is rejected by the Authority; approach to document control, including utilizing the Contractor-provided Electronic Document Management System (EDMS) that is accessible to the Project team by username and password (the Authority shall have the capability to download documents using this Software); approach to risk management, including communication, escalation and resolution of Project risks with the Authority; approach to Quality Assurance and Quality Control; approach to Subcontractor management, including how issues with Subcontractors will be resolved in a timely manner; approach to procurement management which adheres to the Authority's policies; approach to operational readiness including a Go-Live check list; documenting the invoice submission; invoice backup information; verification, and Approval process; a section with all Approved Project forms; approach to Project closeout and an emergency contact list.
4	The Contractor shall provide as a part of the PMP and then maintain both a Contractor and Authority contact list. The contact list shall include all Implementation Phase Key Personnel and backups, personnel title and areas of Project participation. The list will be superseded by Operations and Maintenance Phase documentation and processes.
5	The Contractor shall develop and submit the PMP to the Authority within ten (10) Business Days of the Agreement's Effective Date for review and Approval.
6	The Contractor shall identify the tools and products used to manage the Project and the internal controls instituted by the Contractor to guarantee successful delivery of the Project.

7	The Contractor shall develop and submit communications procedures to the Authority for review and Approval that address the following, including but not limited to:
	<ul style="list-style-type: none"> Correspondence – all correspondence shall be identified as to originator and designated receiver and contain the Agreement name and number;
	<ul style="list-style-type: none"> Document control – tracking of document versions and changes;
	<ul style="list-style-type: none"> Invoices – all invoices shall be submitted with accompanying backup information as required by the Agreement and consistent with the Authority process and invoicing and auditing policies. The Contractor shall work with the Authority to develop the appropriate invoice and back-up materials as a part of the PMP development. Contractor shall address costs that are netted out from the Contractors toll revenue payment to the Authority, for example credit card fees and collections fees and
	<ul style="list-style-type: none"> Submittals – all Submittals shall be delivered as an enclosure to the Contractor's submittal letter. Each Submittal letter shall be limited to a single subject or item. The Contractor's letter shall identify the Agreement number, Agreement name and subject of the Submittal, CDRL name if applicable, and the version number.

1.3. Coordination

1.3.1. Coordination with ETTM System Contractor

The Contractor shall work with the ETTM System Contractor in the design, implementation and operations of the BOS as well as the management and operation of the CSC. The ETTM System Contractor is responsible for around-the-clock monitoring of the ETTM System and support of operations and operational staff with respect to the ETTM System. The Contractor shall nonetheless be responsible for the timely reporting of any issues or failures it has identified related to the ETTM System to both the ETTM System Contractor and the Authority, and for cooperating with the ETTM System Contractor to resolve the issues as expeditiously as possible.

8	The Contractor shall report any observed ETTM System anomalies and errors to the ETTM System Contractor via Cases; the Contractor shall track these issues through to timely resolution in coordination with the ETTM System Contractor.
9	The Contractor shall select the appropriate priority level or level of urgency when reporting ETTM System errors to the ETTM System Contractor based on the levels identified in the Operations Plan. The Contractor shall make best efforts to ensure that critical and high-priority items are quickly and effectively communicated to the ETTM System Contractor within a time period agreed-to in the Operations Plan.
10	The Contractor shall notify the Authority of all issues and errors identified in the Operations Plan as requiring simultaneous notification to the Authority.
11	The Contractor shall participate in Coordination and Status meetings with the Authority and the ETTM System Contractor.
12	The Contractor shall participate in other meetings with the Authority and the ETTM System Contractor.

1.3.2. Cooperation with Other Contractors and Providers

13	The Contractor shall cooperate to the fullest extent with other contractors, the Authority, and Third-Party Service Providers and Business Partners to ensure the BOS Implementation and Operations and Maintenance Phase activities do not conflict with, have any detrimental effect, or cause any interruption in capability or service or safety issues to the traveling public, customers, the Authority, other OCTA BOS and CSC Operations or existing OCTA operations.
14	<p>The Contractor shall cooperate to the fullest extent with external parties in accordance with the terms and conditions of the Agreement, including but not limited to:</p> <ul style="list-style-type: none"> • employees of the Authority; • designated representatives of the Authority; • Authority legal counsel; • other Interoperable Agencies, states and parties, as directed by the Authority; • all entities that directly access the BOS; • all entities that use or require output from the BOS; • law enforcement; • auditors and • All Third-Party Service Providers and Business Partners.
15	The Contractor shall cooperate with and immediately notify the Authority (via Authority - provided distribution list) regarding any issues with or customer complaints related to the BOS or ETTM System that come to Contractor's attention during the course of Implementation, testing or during the Operations and Maintenance Phase.

1.4. Project Meetings

The Contractor is required to facilitate (plan, lead, coordinate, and report on) or participate in both regularly scheduled and ad-hoc meetings during the course of the Project.

16	<p>The Contractor shall set up, facilitate and participate in meetings during the Implementation Phase, including but not limited to:</p> <ul style="list-style-type: none"> • Project reporting and progress meeting (monthly); • Change Control Board meetings (as required, but no less than every two weeks or per the Project Management Plan); • installation coordination meetings (weekly during specific Implementation Phase timeframe) and • Various workshops, comment review and BOS Design meetings as required.
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17	The Contractor shall set up, facilitate and participate in meetings during the Operations and Maintenance Phase, including but not limited to:
	<ul style="list-style-type: none"> Weekly project status meetings;
	<ul style="list-style-type: none"> Ad-hoc meetings (as needed);
	<ul style="list-style-type: none"> Change Control Board meetings (as needed);
	<ul style="list-style-type: none"> CSC Operations performance review and operational status meetings (to include review of performance relative to the Performance Measures, Customer Satisfaction Surveys, training schedule, identified BOS issues and other relevant findings);
	<ul style="list-style-type: none"> BOS performance review and operational status meetings (to include review of Performance relative to the Performance Measures, training schedule, Upgrades and Enhancements list, bug list and general status updates) and
	<ul style="list-style-type: none"> Maintenance and Operations Phase meetings shall be structured and scheduled per the Approved Maintenance Plan.
18	The Contractor shall provide and maintain a schedule for all meetings which it leads.
19	All meeting locations shall be designated by the Authority.
20	No less than three (3) Business Days prior to meetings which it leads, the Contractor shall provide a meeting agenda that the Authority can comment on and the Contractor shall then update.
21	No more than three (3) Business Days after meetings it leads, the Contractor shall submit draft meeting minutes for the Authority's review, which capture the summary of the discussions. No more than two (2) Business Days after receiving the Authority's comments to the meeting minutes, the Contractor shall submit updated meeting minutes for the Authority's review. This process shall continue until the meeting minutes are Approved.

1.4.1. Project Reporting and Progress Meetings During Implementation Phase

Bi-weekly Project reports and progress meetings shall enable the Authority and the Contractor to monitor the status, progress and quality of the Work performed on the Project and to take proactive steps to ensure successful delivery of the Project.

22	The calendar for meeting days shall be scheduled by the Contractor following the Agreement's Effective Date.
23	With the meeting agenda submission, the Contractor shall submit a progress report to the Authority. The Authority may review and comment on the progress report prior to the meeting and the Contractor shall update accordingly.
24	The format of the progress report shall be agreed upon as one of the initial Project tasks upon the Agreement's Effective Date and shall be incorporated by the Contractor into the PMP.

25	The Contractor shall manage, facilitate and conduct the meetings in accordance with the agreed to format.
26	<p>The progress report includes but is not limited to:</p> <ul style="list-style-type: none"> • a summary, outlining progress, status and percentage of Work performed for each task, as compared to planned activities in the Approved Baseline Implementation Schedule. Comments shall be included where appropriate. The summary should be a dashboard-style report and shall identify status of key milestones; • an analysis of all critical path tasks, potential risks associated with the tasks and proposed contingency/work around plans to circumvent or mitigate delays to the Project; • identification of any Approved changes to Approved milestone dates and Approved Baseline Implementation Schedule, clearly noting the details and identifying the Agreement Modification; • a discussion of Schedule compliance and an updated Baseline Implementation Schedule showing current status against the baseline Approved Baseline Implementation Schedule; • a risk log that tracks the status of all outstanding risks that need decision/resolution; • an updated action items list that tracks the status of all outstanding Deliverables, activities and issues that need decision/resolution; • open invoices, if applicable; • a list of Approved and pending change requests (Contractor and Authority -initiated) and their status; • the previous meeting final minutes and • a six (6) week look-ahead schedule.

1.5. Quality Assurance Program

The Contractor shall establish an effective Quality Assurance (QA) program to ensure compliance with the Agreement. This QA program shall detail the process and procedures instituted by the Contractor to ensure the QA program is in place.

27	The Contractor shall establish an effective QA program that ensures adequate quality throughout all areas of Agreement performance.
28	All systems and services under this Agreement, whether performed within the Contractor's facilities or at any other source, shall be managed by the Contractor at all points necessary to ensure conformance to the Requirements of the Agreement.
29	The QA program shall provide for the prevention and early detection of discrepancies and for timely and positive corrective action.

30	The QA program shall include effective Quality Control of purchased services and materials and subcontracted Work.
31	The Contractor shall make evidence of quality conformance readily available to the Authority, and the Authority shall have the right to review and verify the Contractor's compliance to the process. For the Implementation Phase, evidence includes documentation of adherence to testing procedures and achieving expected test results and for the Operations and Maintenance Phase, evidence includes the Monthly Operations Report, results of quality audits and system reports.
32	The Contactor's Quality Assurance Manager shall lead the team of Contractor's staff to meet all the Requirements related to quality and to assure the Authority that the Work of the Contractor is in accordance with the Quality Plan as defined in Section 4.2.1.

1.5.1. Control of Purchase

33	The Contractor shall be responsible for ensuring all systems, supplies, components, developmental tools, assemblies, subassemblies and services procured from Subcontractors, Third-Party Service Providers and Business Partners conform to the Requirements and the Agreement.
34	The Contractor shall establish procedures for the selection of Third-Party Service Providers and Business Partners in accordance with the Agreement. The Contractor shall ensure the Subcontractors, Third-Party Service Providers and Business Partners control the quality of the supplies and services provided.
35	The Contractor shall provide all procurement documents to the Authority upon request.

1.5.2. Visits to Contractor's Facilities

36	The Authority reserves the right to both unannounced and scheduled visits to all Contractor's facilities and all areas of those facilities where Software development/support and services related to the BOS and CSC Operations are performed.
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1.6. Baseline Implementation Schedule and Contract Deliverables Requirements List (CDRL)

The Approved Baseline Implementation Schedule (also referred to as "the Schedule" below) is a comprehensive list of Project milestones, activities and Deliverables, with planned start and finish dates, including a detailed Work Breakdown Structure (WBS) that identifies Project tasks down to the Work package level and the activities required to complete the Work package Deliverables. The Contract Deliverables Requirement List (CDRL) (Section 10) is used with the schedule to track the Project Deliverables.

37	The Contractor shall provide and maintain a detailed Baseline Implementation Schedule in Microsoft Project format (Project 2016 or above and include backward compatibility with earlier versions as required by the Authority) that lists all Project activities, tasks and sub-tasks, and sub-phases including but not limited to:
	<ul style="list-style-type: none"> • staffing;
	<ul style="list-style-type: none"> • key intersection points/dependencies with the ETTM System Contractor:
	<ul style="list-style-type: none"> • document development;
	<ul style="list-style-type: none"> • any required improvements to data center, CSC and WIC Sites;
	<ul style="list-style-type: none"> • fit-out/installation (including communications infrastructure installation) of data center, CSC and WIC facilities;
	<ul style="list-style-type: none"> • training;
	<ul style="list-style-type: none"> • mobilization;
	<ul style="list-style-type: none"> • BOS and operations Go-Live and
	<ul style="list-style-type: none"> • all ongoing Project activities throughout the Implementation Phase, such as scheduled meetings and their frequency/periodicity.
38	The Schedule shall include the milestone dates shown in RFP Exhibit C as modified and Approved per the Agreement.
39	The Schedule shall also include coordination activities with the Authority, other contractors, and all Third-Party Service Providers and Business Partners and shall clearly document all coordination tasks.
40	Upon Approval of the Baseline Implementation Schedule by the Authority, the schedule shall become the Approved Baseline Implementation Schedule.
41	The Schedule shall identify all milestones and tasks, starting with the Agreement's Effective Date through the BOS Acceptance.
42	The Schedule shall be resource loaded, shall include all draft submissions and review cycles and shall include all tasks required of the Authority. All Authority tasks and durations shall be clearly highlighted and differentiated from Contractor tasks.
43	The Schedule shall identify all critical path tasks and shall be used to manage the Project.
44	Once the Baseline Implementation Schedule is Approved, the Contractor shall update progress against the Approved Baseline Implementation Schedule on a monthly basis, showing percent complete for all Project tasks and identifying actual start and finish dates against the Approved Baseline Implementation Schedule.
45	The Contractor shall use the Approved Baseline Implementation Schedule throughout the duration of the Project and shall notify the Authority of any anticipated schedule changes along with a plan for mitigating them, if applicable.

46	The Contractor shall obtain Approval from the Authority for all changes to the Approved Baseline Implementation Schedule. No revisions shall be considered Approved or accepted without this Approval in writing.
47	In parallel and concurrent with the Schedule, the Contractor shall report and track the status of all Contractor Deliverables via a separate CDRL that lists delivery dates (planned and actual), review cycles, workshops (if applicable), comment review meetings and Approval dates.

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2. STAFFING AND KEY PERSONNEL

The Contractor is responsible for maintaining and assigning a sufficient number of competent and qualified professionals to meet the Requirements of the Agreement in accordance with the Approved Baseline Implementation Schedule.

2.1. General Staffing Requirements

48	The Contractor shall provide staff at all times sufficient to meet the Project Requirements.
49	The Contractor shall provide all staff and services to professionally operate the CSC and provide professional customer service in accordance with the procedures and policies documented in the Operations Plan, SOPs, and the Requirements. Staff shall include all management, supervisory, financial, technical, and operations personnel.
50	The Contractor shall ensure Key Personnel are readily accessible to the Authority during the Implementation and Operations and Maintenance Phases.
51	The Contractor shall submit replacement requests for Key Personnel to the Authority for review and Approval prior to replacement of an individual. Key Personnel shall not be replaced without the prior Approval of the Authority as to the replacement.
52	The Authority shall have the right to request replacement of any Contractor personnel in accordance with the terms and conditions of the Agreement.
53	The Contractor shall replace Key Personnel immediately with an acting replacement after the position is empty. Failure to promptly replace open Key Personnel positions with a full-time replacement shall result in penalties as described within the Agreement and/or Performance Measures.
54	The Contractor shall provide a staffing plan for the Operations and Maintenance Phase ninety (90) days before Go-Live.
55	The Contractor shall ensure all personnel are trained and conduct themselves in a professional manner that is based upon the best practices of customer service. The Contractor's employee code of conduct shall be included in the Operations Plan.
56	The Contractor shall provide, update and maintain a complete organizational chart during both the Implementation Phase and Operations and Maintenance Phases and provide to the Authority upon request.

2.2. Key Personnel

57	The Contractor shall provide the following key personnel for this Project, shown Table 2-1: Key Personnel, subject to the Approval of the Authority. The list in Table 2-1 is not an exhaustive list of key personnel, but the minimum required Key Personnel to be included in the Contractor's organizational structure.
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58	The Contractor shall attempt to fill Key Personnel positions with the minimum experience provided in Table 2-1: Key Personnel. The Authority will use the experience levels provided in assessing and Approving Key Personnel.
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Table 2-1: Key Personnel

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>Project Principal – responsible for the oversight of the Project Manager and a point of contact for any escalated Project issues that cannot be resolved by the Project Manager.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Full-time employee of the Proposer or its parent company for at least one (1) year at the time of Proposal submission • Ten (10) years’ experience in the toll industry • Five (5) years of senior management responsibility for major toll projects • Senior management responsibility for at least one (1) project of \$25 million or more in value 	X	X	As requested by the Authority	As Needed from the Agreement’s Effective Date
<p>Project Manager (Implementation Phase) – shall be Contractor’s Day-to-Day contact person for all Project matters and shall be responsible for the overall management and delivery of the Work.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years’ experience as a Project Manager in the toll industry or other related customer service operations environment • Project Manager for at least one (1) Tolling Back Office System Deployment • Project Manager for at least one (1) project of \$10 million or more in value • Project management certification such as PMP is desired 	X		<p>For all status meetings, workshops and reviews</p> <p>100% on-site from the beginning of On-site Installation and Commissioning Testing through BOS Acceptance</p>	100% from Agreement’s Effective Date

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>Project Manager (Operations and Maintenance Phase) – shall be Contractor’s Day-to-Day contact person for all CSC Operations matters and shall be responsible for the overall management and delivery of the CSC-related Work.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years’ experience in the toll industry or other related customer service operations environment • Project Manager for at least one (1) tolling CSC Operation • Project Manager for at least one (1) project of \$10 million or more annually 		X	<p>For all status meetings, workshops and reviews</p> <p>100% on-site from six months prior to Go-Live to End of Agreement</p>	100%
<p>Deputy Project Manager – supports the Project Manager in delivery of the services and stands-in for the Project Manager as needed.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Three (3) years’ experience in the toll industry or other related customer service operations environment • Three (3) years’ experience in project management 	X		<p>For all status meetings, workshops and reviews</p> <p>100% on-site from the beginning of On-site Installation and Commissioning Testing through BOS Acceptance</p>	100% from the Agreement’s Effective Date
<p>Quality Assurance Manager – assures consistent quality throughout the design, development, testing and installation of the BOS and the planning and implementation of the CSC Operations per the Quality Assurance plan. Ensures consistent quality during the Operations and Maintenance Phase per the Quality Assurance plan. Oversees development, implementation</p>	X		<p>For all QA related meetings and workshops and activities.</p> <p>For all formal testing and from Go-Live through BOS Acceptance.</p>	50%

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>and ongoing management of the Quality Assurance Plan and all other quality related documentation.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Five (5) years as Quality Assurance Manager on projects of a similar scope to the services on this Project • Three (3) years of experience in toll BOS and CSC operations • Two (2) years of experience in Quality Assurance • Specialized training and/or certification in quality management 		X	100%	100%
<p>Software Development Manager – responsible for the Software and database design, integration and implementation, on-going resolution of Software bugs and development of new functionality.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> • Experience with technical management of a Software development project of a similar scope to this Project • Three (3) years' experience as Software development lead • Eight (8) years' experience in Software development • Served as the Software Development Manager for at least one (1) project of similar scope to the BOS provided on this Project. 	X		<p>For all Software and functionally related meetings and workshops.</p> <p>All formal testing through BOS Acceptance.</p>	100%
		X	<p>For all Software-related functionality, upgrades and enhancements meetings and workshops.</p> <p>For all Software performance and bug related meetings.</p>	As required

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<p>Technology Manager – responsible for management of overall BOS design, security (including PCI and PII), network and BOS Implementation.</p> <ul style="list-style-type: none"> Ten (10) years' experience with system design and implementation Ten (10) years' experience with systems security for systems which include credit card processing Direct project experience using the proposed solution Experience with BOS design and implementation of a similar scope to the systems provided on this Project 	X		<p>For all BOS design related meetings and workshops and comment resolution meetings.</p> <p>From Go-Live through BOS Acceptance.</p>	50%
		X	<p>For all BOS-related functionality, Upgrades and enhancements meetings and workshops.</p> <p>For all BOS performance related meetings.</p>	As required
<p>Mobilization and Facility Coordination Manager – responsible for the overall planning, implementation and monitoring of the BOS and CSC Operations mobilization, as well as the coordination of all CSC facility design inputs and scheduling.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> Five (5) years' experience with customer service operations, mobilization and CSC facility design. Has performed similar role in at least one (1) mobilization project of similar scope. 	X		<p>For all facility and mobilization related meetings and workshops and comment resolution meetings</p>	100% during mobilization and through Go-Live until BOS is stable

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
On-site Installation Manager – responsible for the physical installation and all required testing of the on-site BOS, including all systems installed in Authority’s facilities. Should meet or exceed the following: <ul style="list-style-type: none"> • Five (5) years’ experience with technology implementations and installations • Experience with the installation and configuration of systems and networks of a similar scope to the systems provided on this Project 	X		For all BOS installation meetings and workshops	100% during installation and through Go-Live until BOS is stable
On-site Technology and Support Manager – responsible for onsite technical and desktop support of CSC, Authority and Third-Party Service Providers staff. Should meet or exceed the following: <ul style="list-style-type: none"> • Five (5) years’ experience with systems, networks and end-user support • Experience with proposed BOS solution 	X		For all BOS support and administration meetings and workshops. 100% from beginning of on-site BOS installation through Go-Live	As required
		X	100%	100%
CSC Operations Manager – responsible for participating in all operations planning and the on-going CSC Operations throughout the Operations and Maintenance Phase. Should meet or exceed the following:	X		For all CSC Operations related meetings and workshops. 100% from a minimum of three (3) months prior to Go-Live	As required

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
<ul style="list-style-type: none"> Five (5) years' experience with CSC management of a similar scope to this Project Three (3) years' experience in toll industry customer service Three (3) years' experience in collections Experience with multi-channel customer contact center and systems 		X	100%	100%
<p>Violations Processing Manager – responsible for participating in all operations planning and the on-going CSC Operations throughout the Operations and Maintenance Phase.</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> Three (3) years' experience with toll violations processing Three (3) years' experience with California tolling statutes 	X		<p>For all CSC Violation Processing and CSC Operations related meetings and workshops.</p> <p>100% from a minimum of three (3) months prior to Go-Live</p>	As required
		X	100%	100%
<p>Finance Manager - ensures the BOS and CSC Operations operates in accordance with Generally Accepted Accounting Principles (GAAP) – shall be a Certified Public Accountant (CPA)</p> <p>Should meet or exceed the following:</p> <ul style="list-style-type: none"> Bachelor's degree in accounting or related field Five (5) years of financial and accounting experience, including management or leadership position (e.g. Accounting Manager, Sr. Accountant, Accounting Lead) 	X		<p>For all finance and reconciliation related meetings and workshops.</p> <p>For all formal testing of financial reconciliation and reporting.</p> <p>100% from Go-Live through BOS Acceptance.</p>	As required

KEY PERSONNEL	Responsibilities		Dedication	
	Implementation Phase	Operations and Maintenance Phase	Time On-site	Dedication %
overseeing accounting operations in a GAAP compliant, high-volume, transaction/trip processing environment performing revenue management, process audits and similar functions <ul style="list-style-type: none"> • Experience with proposed BOS solution preferred • Ability to package and present quantitative data effectively 		X	100%	100%

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2.3. Other Required Personnel

In addition to the Key Personnel list in Section 2.2, the Contractor must provide adequate staff to perform the Requirements. This includes, but is not limited to, the following dedicated staff:

- Human Resources Manager;
- Training Manager;
- Desktop Support Personnel and
- Data Analyst.

59	The Contractor shall provide a Human Resources Manager, with at least five (5) years' experience as a Human Resource Manager on projects of a similar scope to this Project, responsible for all Project personnel. Responsible for human resources management during the Operations and Maintenance Phase.
60	The Contractor shall provide a Training Manager, with at least five (5) years' experience in customer service, responsible for providing assessments, planning, developing, delivering and evaluating employee training.
61	The Contractor shall provide on-site Desktop Environment and BOS application technical support to all Contractor personnel and Authority Authorized Users at all locations from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time and be on-call and available to come on-site 24x7x365.
62	The Contractor shall provide a data analytics specialist for the duration of the Agreement to assist the Authority in formatting queries and running analytics reports on its behalf.

2.4. Staff Selection Requirements

The Contractor shall screen all candidates for potential employment at the CSC. Screening and the subsequent decision to hire shall be based upon fair, equitable and job-related criteria. Additional screening may be required for the Contractor's Operation's staff prior to promotion or transfer to job roles with increased access to sensitive or critical information.

The level of background investigation required shall be dependent upon job function (for example, a receptionist who has limited access to customer and financial information shall require a lower level of investigation than a clerk in the finance department who may have access to customer and financial information).

63	All Contractor employees shall undergo screening, including but is not limited to:
	• business/personal references;
	• illegal substance screening;
	• past employment history;
	• education verification;

	<ul style="list-style-type: none"> • financial credit history;
	<ul style="list-style-type: none"> • professional license and certification verification;
	<ul style="list-style-type: none"> • military service verification;
	<ul style="list-style-type: none"> • criminal records including misdemeanor and felony convictions and
	<ul style="list-style-type: none"> • I-9 immigration status.
64	<p>The Contractor shall comply with all applicable laws and regulations related to Operating and staffing the CSC, including but not limited to:</p> <ul style="list-style-type: none"> • Americans with Disabilities Act (ADA); • Occupational Safety and Health Act (OSHA); • Equal Employment Opportunity Commission (EEOC); • Federal Fair Credit Reporting Act (FCRA); • Drivers Privacy Protection Act - 18 US Code, Section 2721 (DPPA); • California State statute regarding protection of Personal Identifying Information (PII) and • Security Standards.
65	<p>The Contractor, when conducting background investigations, shall consider and take into account the following:</p> <ul style="list-style-type: none"> • name search - married name, previous names, aliases and • investigations must be completed and reviewed by the Contractor prior to the employee beginning work.
66	<p>The Contractor shall maintain hardcopy and electronic, as applicable, backup documentation on-site for all background checks.</p>
67	<p>The Contractor shall maintain records of adjudication and hiring decisions on each candidate interviewed or considered for a position.</p>
68	<p>All staff shall understand, read, write and speak English fluently and shall be U.S. citizens or otherwise legally permitted to work in the U.S.</p>
69	<p>The Contractor shall provide for bilingual (Spanish) customer service staff to support Spanish-speaking customers who call or visit during all business hours.</p>

3. SYSTEM DEVELOPMENT AND DESIGN REQUIREMENTS

3.1. System Development Meetings and Workshops

To ensure the design Requirements for the BOS are fully understood by the Authority and the Contractor, a series of Requirements and design review steps are specified following a sequential design process. The Conformed Statement of Work and Requirements Document (CSWRD) is developed in coordination with the Authority and the Contractor, upon selection of the Contractor. The CSWRD shall be the basis for the Contractor to develop a Requirements Traceability Matrix (RTM). The RTM details the Requirements in tabular format with columns that allow for verification that each of the Requirements in the CSWRD have been addressed in the design and documented in the System Detailed Design Document (SDDD) and the Master Test Plan (MTP) and its test procedures. The RTM shall be the basis for all design, development and testing efforts and documentation to be developed by the Contractor.

The ETTM System Contractor shall attend meetings and workshops as required and at the Authority's discretion based on the meeting content.

70	The Contractor shall establish and maintain a Software design and development program to ensure compliance with the BOS Requirements.
71	The Contractor shall employ appropriate techniques and methodologies to develop the BOS Requirements and ensure compliance with the Business Rules for the Project.
72	The Contractor shall, for all Phase II and Optional (if applicable) functionality, follow the design, development and test process that mimics the Approved Implementation Phase Software design, development and testing process.
73	Prior to conducting any workshops, Requirements reviews, focus group meetings or design reviews, the Contractor shall develop all necessary documentation for the Authority to review and shall submit the documentation for review no less than ten (10) Business Days prior to such meetings.

3.2. Business Rules Workshops

The Contractor shall conduct a series of Business Rules workshops with the Authority to address the Business Rules document with any information required by the Contractor to design, develop and configure the BOS or operations related documentation and processes.

74	The Contractor shall manage, facilitate and conduct Business Rules review workshops with the Authority to discuss, update and modify the Business Rules to accommodate the Implementation of the BOS and CSC Operations.
75	The Business Rules review workshops shall include Contractor and Authority staff with expertise on the current and future business operations.
76	The Contractor shall facilitate and conduct a minimum of three Business Rules workshops.
77	The workshops shall continue until the Business Rules are updated to the satisfaction of both the Contractor and the Authority.

3.3. Software Walkthroughs

The intent of the Software walkthrough is to provide transparency into the planning process for the Contractor's Software development to ensure the Contractor is on track to deliver the Project on schedule and to obtain the Authority's feedback on the direction of the development prior to the full rollout of the Software. Lastly it allows the Authority to observe the BOS in operation. Unlike Software detailed design reviews, these walkthroughs shall demonstrate actual transactions/trips in a test environment. As part of the walkthrough process, the Contractor shall validate all Requirements and ensure Contractor's understanding of the Requirements.

78	The Contractor shall manage, facilitate and conduct the walkthroughs.
79	The Contractor shall conduct a series of Software walkthroughs including product demonstrations and/or planned functionality to solicit input from the Authority during the development of the BOS Software. The Contractor will segment each meeting by functional area and schedule each walkthrough meeting to align with the participants' availability.
80	Prior to the Software walkthrough the Contractor shall provide a listing of the functionality that will be covered, high-level use cases to be demonstrated and identify all Requirements that need clarification and discussion.
81	During the Software walkthroughs, the Contractor shall outline and demonstrate how the BOS Requirements will be met. The outcome of these meetings shall be documented in a revised RTM document.
82	Prior to the Software walkthrough, the Contractor shall develop and submit high-level use cases that shall be demonstrated to the Authority for review and Approval.
83	To the extent possible, the product shall be demonstrated in an environment that allows data to flow as it will in the final integrated BOS.
84	The Software walkthrough shall demonstrate to the Authority that the Software design meets the technical and functional Requirements.
85	Comments and feedback provided during the Software walkthrough shall be documented and resolved by the Contractor and the resolution shall be Approved by the Authority.
86	The Contractor shall be responsible for identifying and correcting any Software issues or defects in its design or product that impact the Contractor's ability to deliver a BOS that meets the Requirements. This shall apply to issues or defects found during or after Software walkthrough or in the subsequent testing and implementation. Any such changes to address these issues shall be Approved by the Authority in writing.

3.4. Reports Design Workshops

The Contractor shall conduct a series of workshops with the Authority to facilitate the design of the BOS reports required by the Authority.

87	The Contractor shall manage, facilitate and conduct a minimum of three (3) reports design workshops.
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88	The reports design process shall be iterative, and the Contractor shall conduct multiple workshops with the Authority's stakeholders sufficient to obtain the Authority's informed input. The Contractor shall bring its subject matter experts (SMEs) to the workshops, including as example, BOS, operations, maintenance and finance/accounting staff, as appropriate for the report type(s) being reviewed during the meeting.
89	SMEs must provide a means for fully explaining each report, its intended purpose, columns, fields and components and its connection with other reconciling and validating reports.
90	The Contractor shall trace the reports to the Requirements and demonstrate that all Requirements are satisfied.
91	Upon receiving feedback from the Authority, the Contractor shall develop/modify the reports and submit the updated reports for review.
92	The iterative series of workshops and demonstrations shall continue until the purpose, layout and content of all reports are Approved by the Authority.

3.5. Performance Measures Reporting Workshops

The Contractor shall conduct a series of workshops with the Authority to facilitate the design of the Performance Measures reports.

93	Within the first three (3) months after the Agreement's Effective Date or at another date Approved by the Authority, subject to reasonable advance notice, the Contractor shall conduct a series of Performance Measures reporting workshops with the Authority. This will allow the Contractor and the Authority to understand how the Performance Measures-related data will be captured and reported once the Operations and Maintenance Phase has commenced. During these workshops, the Contractor and the Authority shall discuss the Performance Measures and the associated reporting. These workshops shall allow the Contractor to specify and gain initial Approval (subject to formal testing) on how the Performance Measures-related data will be captured and to accurately reported during the Operations and Maintenance Phase.
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3.6. System Detailed Design Review Meetings and Workshops

Based on the RTM, Operations Plan, SOPs and Business Rules documents, the Contractor shall design the BOS and submit a preliminary design document for the Authority to review and provide comments. The Contractor shall then conduct a series of design meetings, walk-throughs and workshops with the Authority to address the comments and to create the SDDD, defining how the design shall meet the BOS Requirements. Upon the submittal of an updated SDDD another review cycle shall take place.

94	The Business Rules document, Operations Plan, SOPs, and the RTM shall be used to develop the System design and the SDDD.
95	The Contractor shall schedule design meetings with the Authority to review and fully understand the design Requirements.
96	The Contractor shall manage, facilitate and conduct the workshops and meetings.

97	The Contractor shall demonstrate pre-production working products (such as beta versions) during the design review process, and stakeholders shall be walked through the workflow, utilizing screens and data flow diagrams.
98	The Contractor shall explain how the BOS design meets the RTM, the Business Rules and the Agreement Requirements.
99	The Contractor shall conduct as many meetings, workshops, and submission review cycles as deemed necessary by the Authority to address all design issues to the Authority's satisfaction.

3.7. Use Cases Workshops

The Contractor shall conduct a series of use-case workshops with the Authority to develop use cases. The outcome of these meetings shall be a series of use-case documents that shall be used in conjunction with the Business Rules and test procedures to validate the Requirements.

100	The Contractor shall manage, facilitate and conduct a minimum of three (3) use-case workshops with the Authority to develop the use cases that shall be used in conjunction with test procedures to validate that all BOS Requirements have been met.
101	The use-cases (and associated test-cases) shall be traced against the Requirements within the RTM.
102	The iterative series of workshops and demonstrations shall continue until the above use-case Requirements are satisfied and the use cases are Approved by the Authority.

4. DOCUMENTATION

The Contractor is required to provide various documents to support the BOS development and ongoing operations and Maintenance. All documentation provided under this Agreement shall meet the Requirements described below.

An online Contractor-provided Electronic Document Management System (EDMS) will be provided for the Authority's use. The EDMS will control the saving, versioning and storage of all Project-related documents, including the Contractor's Deliverables and other operations support documentation provided by the Contractor that must be available to the Project team. The Contractor shall save all Contractor Deliverables and other support documentation to the EDMS.

4.1. Contractor-Developed Documentation Requirements

103	The Contractor shall utilize a Contractor-provided EDMS that is accessible to the Project team by username and password, to control all Project-related documents from first submission to Approval.
104	All Project documents submitted under this Agreement shall be available to all authorized Project team members using the EDMS during both the Implementation and Operations and Maintenance Phases.
105	Each document shall be properly titled, date updated, numbered by revision, revision history, and version and shall incorporate signature blocks for authorship and Approvals. The Contractor shall provide a logical indexing system for ease of access for the Authority's Approval to be used to locate documents in the EDMS.
106	The Contractor shall utilize acceptable standards agreed upon by the Contractor and the Authority when updating documents and submitting revisions.
107	All documentation submitted by the Contractor under this Agreement shall be accurate and comply with Agreement Requirements.
108	A table of contents, for all documentation that includes multiple pages and/or multiple sections, shall be submitted by the Contractor to the Authority for review and comment prior to the submission of the preliminary draft as part of the Deliverables Expectation Document. The Authority will review and provide comment on table of contents Submittals within five (5) Business Days.
109	The Deliverables Expectation Document shall include all subsections and a summary narrative for each section describing the assumptions and approach.
110	The Contractor shall submit preliminary draft and final draft documents to the Authority for review and comment, followed by 100 percent complete documents that incorporate all the Authority's review comments.
111	The Authority shall have the right to require additional interim drafts from the Contractor at no additional cost should the documentation submitted not be of adequate quality, have missing or incorrect information or if it does not satisfactorily address the Authority's review comments.

112	The Authority shall review and Approve all documents submitted. For documents containing less than 100 pages, the Authority will review and provide comment on preliminary draft documents within fifteen (15) Business Days. For documents containing at least 100 pages, the Authority will review and provide comment on preliminary draft documents within twenty-five (25) Business Days. The Authority shall review and provide comment on all final draft and final documents within ten (10) Business Days. When multiple documents are submitted to the Authority simultaneously, or within one week of each other, the number of Business Days required for review shall be doubled.
113	The Contractor shall provide a Customer Review Form (CRF) with each submitted document. The Authority shall populate the CRF and provide the Contractor with written comments on all submitted documents. The Contractor shall respond in writing to all comments through the CRF. The Contractor may schedule and conduct meetings to clarify and resolve any remaining questions and issues concerning the comments and responses provided. The Contractor shall then prepare a revised version of the document for Approval by the Authority.
114	The Contractor shall submit a hard copy and the electronic version of all Contractor developed documentation for Authority review and Approval unless otherwise directed by the Authority. Acceptable electronic formats are Microsoft Word 2016 (or higher), unsecured and indexed Portable Document Format (PDF), Excel (as appropriate) and professional CAD applications for Contractor-prepared documentation.
115	The Contractor shall update documentation as changes occur through the Implementation Phase and the Operations and Maintenance Phase. All changes shall be submitted to the Authority for Approval. The Contractor shall maintain a document Submittals list on the EDMS identifying all versions of documents, the date submitted, the nature of changes and identify what the changes are within the documentation.
116	All documentation submitted by the Contractor under this Agreement shall be the property of the Authority and shall not be marked with "Proprietary" unless agreed to by the Authority.

4.2. Documents

4.2.1. Quality Plan

The Quality Plan will include details about how the Contractor will plan and implement the QA program, how to address errors (quality-related events) and how to make improvements before an error occurs (continuous quality improvement). The Quality Plan will address all phases and Work.

117	The Contractor shall develop a CSC Operations Quality Plan that details the Contractor's QA program in a concise manner customized to this Project.
118	<p>The Quality Plan shall include the Contractor's QA approach related to overall project management and controls, including but not limited to:</p> <ul style="list-style-type: none"> • quality management and organizational structure; • project management; • project controls;

	<ul style="list-style-type: none"> • project documentation and updates and • project scheduling.
119	<p>The Quality Plan shall include the Contractor's QA approach related to BOS design and development, operation, Software maintenance and BOS administration, including but not limited to:</p> <ul style="list-style-type: none"> • overall design; • Software development, initial and on-going; • Software development standards and documentation; • testing; • adherence to Security Standards; • installation; • quality management of all BOS created customer communications and Notifications; • adherence to Performance Measures; • configuration management; • change management; • monitoring and administration and • BOS installation and operational mobilization.
120	<p>The Quality Plan shall include the Contractor's QA approach related to CSC Operations, including but not limited to:</p> <ul style="list-style-type: none"> • quality management of every CSC Operations function; • ongoing Customer Satisfaction Surveying and how the tool and information will be used; • customer service quality improvements; • adherence to Security Standards; • quality management and organizational structure; • quality management documentation; • Contractor's quarterly audit; • all State and Federal audits per the Agreement; • all required and Authority led audits; • quality review and verification;

	<ul style="list-style-type: none"> • adherence to Performance Measures and
	<ul style="list-style-type: none"> • CSC initial and on-going staffing.

4.2.2. Software Development Plan

121	<p>The Contractor shall develop and submit a Software Development Plan (SDP) that includes but is not limited to:</p> <ul style="list-style-type: none"> • documentation of the Software development approach to the application structure, behavior, architecture, business processes and data structures; • Software development organizational chart, including resources and responsibilities, such as Software developers (by area of development), system engineers, test engineers, Quality Assurance and Quality Control personnel, configuration management administrator, documentation specialists and management staff; • Software development languages, development platforms and standards; • Software development methodology, such as use cases, modeling and other development tools; • management and control of Software versioning and major releases; • description of the Software development life-cycle and maintenance; • location and approach to segregation of development and testing environments; • development problem reporting and defect tracking; • code reviews; • internal testing methodology; • regression testing; • Software development language strategy related to both development and Software maintenance; • development and integration approach for the major functional Modules; • detailed Software Quality Control processes; • Software documentation, standardization, review and usability; • samples of detailed Software documentation for both external and in-line documentation; • Software configuration and change management approach and standards and • Software deployment approach, release notes and validation.
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4.2.3. Requirements Traceability Matrix

The RTM provides traceability between Requirements and BOS functionality in a matrix format. The RTM shall be the basis for all design, development and testing efforts and documentation to be developed by the Contractor.

122	Upon completion of the BOS Requirements review process the Contractor shall deliver a RTM that details all the technical and functional Requirements for the BOS.
123	<p>The Contractor shall develop and submit an RTM that identifies each Requirement and where it is addressed in the design documents, use cases and test cases, including but not limited to:</p> <ul style="list-style-type: none"> • listing and multiple levels of categorization (e.g., functional, Interfaces, Modules, etc.) of all Requirements; • identification of the source of all Requirements; • identification of the design section of the SDDD that addresses the Requirement; • identification of the test procedures that address the Requirement; • Identification of the test method to validate the Requirement (e.g., via inspection, demonstration, analysis, test) and • identification of the Business Rules associated with each Requirement.
124	The RTM shall build on the specifications documented in the CSWRD and shall capture all user needs identified during the Requirements review process.
125	During the design and development of the BOS, the Contractor shall update the RTM to reflect any changes to the Requirements and Requirements tracing that have been Approved by the Authority through the Project's change control management process.
126	During design and testing, the RTM shall be used to verify the compliance to the Requirements, use cases and test cases.
127	Upon Approval of the RTM, it shall be the basis for functional verification of design, development and testing.

4.2.4. System Detailed Design Document (SDDD)

128	The Contractor shall develop and submit an SDDD that describes the design specifications of all Hardware and Software provided as part of the BOS to meet the Approved Agreement Requirements. The SDDD shall demonstrate that the Contractor understands the functional, technical and Performance Measures of the BOS and has the processes, system and Software design in place to provide a high-quality and reliable product that meets the Requirements.
129	The SDDD shall be written in accordance with the Quality Plan as defined in Section 4.2.1.

130	The SDDD shall comply with data retention Requirements set forth in the Security Standards and Section 4.2.17 Records.
131	The SDDD shall include the use of diagrams, figures and tables, and it shall apply to all required environments, Contractor-provided systems, and Software to be used by the Contractor, all Interfaces and all Third-Party Service Providers and Business Partners.
132	The Contractor shall work with the Authority's marketing department in developing the Self-Service website navigation and look and feel.
133	<p>The SDDD shall include but not be limited to:</p> <ul style="list-style-type: none"> • logical BOS diagrams for all environments that identify all subsystems, components, connections and Interfaces; • physical BOS architecture diagrams for all environments that identify all sites, equipment and network layout diagrams; • telephony, IVR and ACD system flow diagrams, including call routing options; • high system availability design for all BOS components, including servers, storage, network, database and application; • detailed desktop computer Hardware, Software and peripheral configurations; • access/identity security methodology; • network sizing and design details including IP scheme; • complete bill of materials, including Hardware, Software and support/maintenance agreements; • specification sheets for all equipment including space and power requirements; • Disaster Recovery and Business Continuity design, including network impacts; • detailed database design, schema and entity relationship modeling, including transaction and file sizing and processing calculations; • detailed database data dictionary; • detailed data management design and processes, including summarizations, archiving and purging; • all documentation required under PCI and PII and to document conformance with the Security Standards; • Interface Control Documents (ICDs) for all external Interfaces and file upload functionality documenting both sides of the Interface; • detailed Software architecture, internal software component interfaces, logic and process flows; • detailed transactional and Violation processing logic and flow;

	<ul style="list-style-type: none"> • detailed financial processing logic and flow, including interface and mapping to the Authority's financial applications;
	<ul style="list-style-type: none"> • Self-Service Mobile Application (Phase II and optional) flow diagram;
	<ul style="list-style-type: none"> • Self-Service Website site map;
	<ul style="list-style-type: none"> • application performance monitoring design;
	<ul style="list-style-type: none"> • all GUIs (including reports and screen formats);
	<ul style="list-style-type: none"> • format of all correspondence for all channels and
	<ul style="list-style-type: none"> • account management design and account types.

4.2.5. Master Test Plan (MTP)

The Contractor shall develop and submit a comprehensive testing plan that describes the different test phases, the Contractor's testing concepts and approach and the administration of each test. The Master Test Plan (MTP) outlines the scope and testing concepts to be used to validate the BOS compliance to the Requirements, including integration to the ETMM System, external entities and Interoperable Agencies, and compliance to all Business Rules and Security Standards.

134	The Contractor shall provide an MTP for the Authority's Approval that details the testing methodology utilized by the Contractor to demonstrate the BOS satisfies all Requirements.
135	<p>The MTP shall cover all aspects of the BOS testing and shall describe all test phases, scope and procedures to validate the BOS compliance to the Requirements, including but not limited to:</p> <ul style="list-style-type: none"> • overall approach to testing, including tools and automation; • approach to using use cases and test cases to validate all Requirements; • approach to entry and exit criteria; • approach/methodology to pass/fail criteria; • approach to the severity and priority descriptions and levels for each test; • approach to defect tracking; reported; resolution, and regression testing, including tools used to document defects; • approach for each test phase including purpose, scope, system environment, duration location, and resources; • methodology for testing the Requirements and sample size for each phase of testing; • approach for how data sets for each test are created including data needed to simulate logical days and cycles; • approach to validating BOS Requirements through the testing methodology;

	<ul style="list-style-type: none"> • approach to validating Performance Measures;
	<ul style="list-style-type: none"> • approach to validating all reporting Requirements;
	<ul style="list-style-type: none"> • approach to end-to-end testing, validation and reconciliation;
	<ul style="list-style-type: none"> • approach to validating BOS monitoring, logging, access, Performance Management and Monitoring System (PMMS) Requirements;
	<ul style="list-style-type: none"> • approach to testing, compliance to standards, correction of defects and Software release;
	<ul style="list-style-type: none"> • end-to-end testing to ensure processes, transactions/trips and their interaction are tested through their final stages or disposition;
	<ul style="list-style-type: none"> • Interface testing to ETMM System, Interoperable Agencies and Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • Security Standards;
	<ul style="list-style-type: none"> • financial activity and reconciliation;
	<ul style="list-style-type: none"> • redundancy/failover aspects;
	<ul style="list-style-type: none"> • DR aspects and
	<ul style="list-style-type: none"> • cross-channel testing to ensure testing is not only performed for each Interface (such as, Self-Service Website, Self-Service Mobile Application (Phase II and optional), and IVR) individually, but also that testing is performed across each Interface to ensure consistent presentation and processing.

4.2.6. Individual Test Plan and Test Procedures

The Contractor shall develop and submit individual test plans that describe the required test phases, the Contractor's testing concepts and approach for the administration of each test defined later in these Requirements. The individual test plans will provide detailed documentation of the individual testing plan and procedures.

136	The Contractor shall provide a separate detailed test plan for the Authority's Approval for each testing phase outlined in the Requirements and MTP, including:
	<ul style="list-style-type: none"> • Unit Test Plan;
	<ul style="list-style-type: none"> • System Integration Test Plan;
	<ul style="list-style-type: none"> • User Acceptance Test Plan;
	<ul style="list-style-type: none"> • On-site Installation and Commissioning Test Plan and
	<ul style="list-style-type: none"> • Operational and Acceptance Test Plan.
	The Contractor shall provide a detailed test plan, including but not limited to:

137	<ul style="list-style-type: none"> • test agenda including location, dates, meetings, testers, observers and attendees;
	<ul style="list-style-type: none"> • test scripts for manual and automated tests;
	<ul style="list-style-type: none"> • detailed use cases and test cases mapped to the RTM for all testing;
	<ul style="list-style-type: none"> • test entry and exit criteria;
	<ul style="list-style-type: none"> • test preparation;
	<ul style="list-style-type: none"> • description of process for ensuring quality of testing and documentation;
	<ul style="list-style-type: none"> • test data creation process and
	<ul style="list-style-type: none"> • description of the environment used and Software versioning.
138	The Contractor shall provide use cases and test cases for Authority Approval for each testing phase outlined in the RTM, including but not limited to:
	<ul style="list-style-type: none"> • use case/test case ID;
	<ul style="list-style-type: none"> • use case/test case description;
	<ul style="list-style-type: none"> • mapped Requirements and Business Rules;
	<ul style="list-style-type: none"> • assumptions:
	<ul style="list-style-type: none"> • test data (variables and their values);
	<ul style="list-style-type: none"> • steps to be executed;
	<ul style="list-style-type: none"> • expected results;
	<ul style="list-style-type: none"> • pass/fail criteria;
	<ul style="list-style-type: none"> • space to document actual results and
	<ul style="list-style-type: none"> • space for comments.

4.2.7. Implementation Plan and Related Documentation

The Contractor shall develop and submit an Implementation Plan and related documentation that identifies its approach that covers the major elements of the implementation, including coordination with the Authority's ETTM System Contractor, Third-Party Service Providers and Business Partners and others.

139	The Contractor shall develop and submit the Implementation Plan that documents all implementation related activities for the Project for Authority's review in accordance with the Approved Baseline Implementation Schedule.
140	The Implementation Plan shall define all elements of implementation, including but not limited to:

	<ul style="list-style-type: none"> the detailed implementation schedule, detailing all activities for the implementation of the BOS, including coordination with ETTM System Contractor, Third-Party Service Providers and Business Partners and others as required. Once the implementation schedule is Approved by the Authority, the Contractor shall submit to the Authority updates during the implementation period(s) identifying any proposed implementation schedule changes and Work progress in the form of percentage completions;
	<ul style="list-style-type: none"> resource allocation Requirements for all implementation period(s);
	<ul style="list-style-type: none"> procurement and installation of the communications network;
	<ul style="list-style-type: none"> Quality Control, Quality Assurance, inspection and testing processes;
	<ul style="list-style-type: none"> special or unique implementation Requirements;
	<ul style="list-style-type: none"> an organization chart with contact information, roles and responsibilities and includes ETTM System Contractor, Third-Party Service Providers and Business Partners and others as required and
	<ul style="list-style-type: none"> Go-Live checklist.
141	The Contractor shall develop and submit to the Authority a full size (24" by 36") set of drawings with installation notes, providing sufficient and accurate detail of all systems and network layouts at all facilities that have BOS equipment.

4.2.8. Disaster Recovery Plan

The Disaster Recovery Plan (DRP) is a comprehensive, documented statement of actions to be taken before, during and after a disaster to protect and recover the information technology data, assets and facilities of the BOS.

142	The Contractor shall develop, test, and submit a Disaster Recovery Plan (DRP) and subsequent Disaster Recovery procedures that describe the approach, as well as procedures to take place in the event of a disaster for the BOS.
143	The DRP shall document the Contractor's approach to and planning for recovering from a disaster, including but not limited to:
	<ul style="list-style-type: none"> define what constitutes disaster, associated risks and severity levels and timeframes to address (e.g., earthquake, flood, electrical outage, general loss of access to building, etc.);
	<ul style="list-style-type: none"> mitigation of disaster risks;
	<ul style="list-style-type: none"> preparations in the event of a disaster;
	<ul style="list-style-type: none"> organization chart illustrating Disaster Recovery team members, roles and responsibilities;
	<ul style="list-style-type: none"> notification contact list, including contact information;

	<ul style="list-style-type: none"> notification protocol; sites and equipment for Disaster Recovery, presented in a diagram format; Disaster Recovery process initiation and completion checklist; coordination with the ETTM System Contractor and all Third-Party Service Providers and Business Partners; Software, system and data replication processes; detailed logistical processes for activation of Disaster Recovery site and systems; detailed technical processes for activation of Disaster Recovery site and systems; detailed operational functions for activation of Disaster Recovery site and detailed technical processes for reactivation of primary site (or moving to a new primary site if the original primary site is destroyed) for systems and coordination with Authority's operations.
144	<p>The DR shall include the following BOS information, including but not be limited to:</p> <ul style="list-style-type: none"> Recovery Point Objective (RPO): maximum acceptable amount of data loss for all critical BOS services after an unplanned data-loss incident; Recovery Time Objective (RTO): maximum acceptable amount of time for restoring a critical BOS services and regaining access to data after an unplanned disruption; Level of Service (LOS): the combination of throughput and functionality required to sustain BOS business operations and detailed description of how site and BOS security shall be maintained to ensure continued compliance with the Security Standards.
145	The DRP shall be tested and updated by the Contractor annually.

4.2.9. Business Continuity Plan

The Business Continuity Plan (BCP) is a comprehensive, documented statement of strategy, as well as the planning, actions and processes that allows the Authority to continue BOS and CSC Operations after experiencing a disruptive event.

146	The Contractor shall develop, test, and submit a Business Continuity Plan (BCP) that details the Contractor's approach to accommodating the staffing capabilities, furnishings, equipment, systems, network, applications and data components required to ensure the continuity and resumption and continuity of critical BOS processes.
147	The Contractor shall be responsible for providing a high-level plan for restoring CSC Operations in the event that facilities become unavailable; however, the plan shall not result in any costs to the Authority for pre-staging of equipment and personnel.

148	The Contractor shall be responsible for providing a detailed plan for restoring CSC Operations in the event that all or part of the CSC staff are directed by the Contractor or the Authority to work-at-home. For example, during an event similar to the COVID-19 outbreak.
149	Changes to the operations BCP shall be reflected in the BCP within thirty (30) Calendar Days of Approval. The Contractor shall distribute, train and educate the operations staff on the BCP.

4.2.10. BOS Installation Plan

The BOS Installation Plan will be used by the Contractor to successfully install and prepare the BOS for testing and eventual Go-Live.

150	The Contractor shall coordinate with the Authority, Third-Party Service Providers and Business Partners, and the ETTM System Contractor to develop and provide a detailed BOS Installation Plan, subject to Approval by the Authority that identifies all aspects of BOS installation and start-up of all activities and systems associated with the testing and implementation of the BOS in accordance with the Security Standards.
151	<p>The BOS Installation Plan shall incorporate all aspects of the BOS installation, start-up and Go-Live, including but not limited to:</p> <ul style="list-style-type: none"> • approach to installing the BOS, including network equipment; CSC equipment and Desktop Environments; • communication procedures; • BOS licensing; • website static content; • phone numbers; • BOS access control; • network addresses; • mapping of all start-up activities; • approach to compliance with Security Standards during installation and testing; • coordination and Interface testing and start-up activities required with the ETTM System Contractor, and Third-Party Service Providers and Business Partners; • approach to achieving Commencement of Ramp-up/Customer Services; • acquisition and implementation of domain names and URLs; • installation team organizational structure, roles and responsibilities and • other activities required for the Go-Live from a system standpoint.

152	The BOS Installation Plan shall describe the approach to testing support, including but not limited to:
	<ul style="list-style-type: none"> • approach to the iterative and repetitive testing phases;
	<ul style="list-style-type: none"> • within each testing phase the approach to resetting account balances, advancing aging and other system administration activities necessary to support repetitive testing and
	<ul style="list-style-type: none"> • within each testing phase the approach to establishing required Interfaces.

4.2.11. CSC Operations and Facility Mobilization Plan

The CSC Operations and Facility Mobilization Plan shall be developed by the Contractor and shall include an explanation of how the Contractor will manage CSC and CSC facility mobilization.

153	The Contractor shall coordinate with the Authority to develop a detailed CSC Operations and Facility Mobilization Plan that identifies and plans for all activities, data and Authority-owned materials associated with the mobilization of the CSC, as well as all aspects of design and coordination of the CSC and WIC facility.
154	The CSC Operations and Facility Mobilization Plan shall include how the Contractor will stage new operations for testing and Go-Live.
155	The CSC Operations and Facility Mobilization Plan shall address how and where the Contractor will train the staff without disrupting current operations.
156	The CSC Operations and Facility Mobilization Plan shall incorporate all aspects of the CSC Mobilization, including but not limited to:
	<ul style="list-style-type: none"> • pre-Go-Live account creation and transponder delivery;
	<ul style="list-style-type: none"> • transponder inventory;
	<ul style="list-style-type: none"> • Violation work;
	<ul style="list-style-type: none"> • all printed customer collateral;
	<ul style="list-style-type: none"> • hardcopy documentation;
	<ul style="list-style-type: none"> • softcopy information owned by the Authority;
	<ul style="list-style-type: none"> • mobilization of CSC facilities;
	<ul style="list-style-type: none"> • post office boxes;
	<ul style="list-style-type: none"> • Postage meters;
	<ul style="list-style-type: none"> • phone numbers;
	<ul style="list-style-type: none"> • staffing for testing;
	<ul style="list-style-type: none"> • staffing for initial pre-Go-Live marketing period;

	<ul style="list-style-type: none"> • staffing for initial Go-Live; • security personnel as required by Contractor; • administration of CCTV Surveillance and physical security systems; • service contracts; • training and • Go-Live activities.
157	The CSC Operations and Facility Mobilization Plan shall include a mobilization and facility mobilization and occupancy schedule.
158	The CSC Operations and Facility Mobilization Plan shall be submitted for Approval by the Authority as a part of the Operations Plan in accordance with the Approved Baseline Implementation Schedule.

4.2.12. End of Agreement Transition Plan

The End of Agreement Transition Plan shall address how the Contractor will support the Authority and the Contractor's successor to facilitate a seamless transition upon termination or expiration of the Agreement.

159	The Contractor shall develop a detailed End of Agreement Transition Plan that identifies the transition of all activities and Authority -owned materials and data associated with the Operation of the CSC at the end of the Agreement.
160	<p>The End of Agreement Transition Plan shall incorporate all aspects of the transition, including but not limited to:</p> <ul style="list-style-type: none"> • customer service, billing and violation work in progress; • accounts and violations in collections; • Merchant Services Provider activities; • transponder inventory; • all printed customer collateral; • all supplies and consumables on hand; • hardcopy documentation; • softcopy information owned by the Authority; • CSCs; • staffing;

	<ul style="list-style-type: none"> • training and • Contractor orderly shutdown of non-transitioned items, facilities and services.
161	The End of Agreement Transition Plan shall be submitted for Approval by the Authority as a part of the Operations Plan in accordance with the Approved Baseline Implementation Schedule.
162	The End of Agreement Transition Plan shall be updated and submitted for Approval by the Authority every two (2) years over the term of the Agreement.

4.2.13. Operations Plan

The Operations Plan is a comprehensive source of information about how the CSC will be managed and operated.

163	<p>The Contractor shall develop and maintain a comprehensive Operations Plan that details all aspects of the Operation of the CSC, including but not limited to:</p> <ul style="list-style-type: none"> • a description of each department/functional area and providing sufficient detail for the Authority to understand the functions and responsibilities of each department and how it will be staffed, managed and operated; • all the Authority's Business Rules and policies related to the CSC Operations; • account Terms and Conditions; • detailed SOPs required to operate the CSC; • customer data privacy policy; • data and physical security including periodic access audit and reporting; • human resources and staffing policies and procedures; • background check processes; • employee code of conduct; • Authority's Holidays and hours of operation, including the CSC and other CSC facilities, if applicable; • detailed scripts for common customer interactions; • copies of each form, spreadsheet, manual tracking sheet, report, letter, email copy, and text copy (BOS and non-BOS generated) which the Contractor will utilize in the operation of the CSC; • Quality Control and verification procedures to ensure operations meet the Performance Measures; • operations monitoring to ensure compliance with Requirements;
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	<ul style="list-style-type: none"> • a description of how the Contractor will communicate with the Authority pertaining to day-to-day operations and general issues and problems, including but not limited to: Case management, correspondence management, escalation procedures, Document control, and Submittals procedures; • a description of how the Contractor will communicate with the Authority and Interoperable Agencies in handling customer disputes, dismissals, payments and reconciliation; • detailed structure and schedule for monthly maintenance and operations meetings with the ETTM System Contractor and the Authority (separate meetings or combined at Authority's discretion); • emergency response management procedures, including a detailed description of how the Contractor will communicate and respond to emergency conditions and • processes and procedures instituted to ensure high customer satisfaction including the details of the Customer Satisfaction Survey Provider and program that will be used to monitor customer satisfaction with the CSC.
164	The Contractor shall provide updates and changes to the Authority no less than annually for Approval and incorporation into the Operations Plan. The Operations Plan shall be a living Document and as such, shall be updated and reviewed/Approved by the Authority whenever changes are made to any element of the operations covered in the Operations Plan.
165	The Contractor shall publish a full revision of the Operations Plan no less than annually.
166	The Operations Plan shall be submitted for Approval by the Authority in accordance with the Approved Baseline Implementation Schedule.

4.2.14. Standard Operations Procedures (SOPs)

167	The Contractor shall develop and maintain the SOPs. The SOPs shall use detailed narratives and process flow diagrams in providing step-by-step procedures for every task the Contractor performs. The SOPs shall detail both manual and BOS-aided steps and procedures.
168	Approved, new policies, procedures and changes to existing policies and procedures shall be updated in the SOPs quarterly. The Contractor shall distribute, train and educate the operations staff and the Authority in accordance with the SOPs.
169	The SOPs shall be submitted for Approval by the Authority as a part of the Operations Plan.

4.2.15. Staffing and Human Resources Management Plan

The Staffing and Human Resources Management Plan defines the required human resources needed to meet all of the Requirements for the CSC. It details the selection and assignment of an operations team. It describes how the staff will be recruited, vetted, trained, compensated, evaluated,

disciplined, and terminated. The Staffing and Human Resources Management Plan shall identify the appropriate skill sets and labor to manage the Work and to perform the tasks that produce the specified Deliverables, customer service and performance. It also shall provide for any additional non-labor resources such as tools, equipment, or processes used by the operations team.

170	The Contractor shall develop a Staffing and Human Resources Management Plan that includes details of the Contractor's staffing program.
171	The Staffing and Human Resources Management Plan shall include a hiring/assignment schedule for anticipated resource Requirements for the duration of the Project.
172	<p>The Contractor shall develop and provide an organizational approach for staffing in the Staffing and Human Resources Management Plan designed to meet the Requirements. This includes but is not limited to:</p> <ul style="list-style-type: none"> • organizational chart with all staff positions (including Subcontractors), head count and reporting relationships; • job descriptions for all staff positions by position type; • identification of functions which have been subcontracted, the name and responsibilities of the Subcontractor, and name(s) and contact information for Subcontractor's key personnel; • description of the process used for determining the appropriate staffing levels for each position; • a schedule describing the daily and weekly staff shifts and a description of how the Contractor will adjust staffing to accommodate seasonal and dynamic changes in work volume; • recruitment process; • background investigation approach; • pre-employment testing; • training, testing and re-training policies and procedures including refresher and remedial training for both remote and local staff; • employee retention and career development program; • employee monitoring, performance evaluation and coaching; • employee disciplinary process and • employee termination process.
173	The Staffing and Human Resources Management Plan shall also include the location of all personnel required to meet Project Requirements (on-site or remote), as well as the Contractor's approach to providing on-site training and support for remote staff.

174	This Staffing and Human Resources Management Plan shall be submitted for Approval by the Authority as a part of the Operations Plan in accordance with the Approved Baseline Implementation Schedule.
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4.2.16. Reporting and Reconciliation Plan

The Reporting and Reconciliation Plan shall include a comprehensive, detailed description of actions to be taken and information to be provided to the Authority related to reporting and reconciliation. This document will identify each report and its associated delivery schedule and provide an explanation of the report and its underlying data and how it is used.

175	The Contractor shall develop and submit to the Authority for Approval, a Reporting and Reconciliation Plan that details the Contractor's reporting and reconciliation process.
176	The Reporting and Reconciliation Plan identifies the procedures that the Contractor will use to perform, manage and reconcile all aspects of the CSC. This includes both transactional and financial reconciliation, including allocation of all Contractor's cost and Third-Party Service Provider and Business Partner associated revenue and/or costs.
177	Each reconciliation shall have a separate section which identifies the reports used for the reconciliation, whether or not the report is generated from the BOS, received from a Third-Party Service Provider or Business Partner (e.g., banks, Collection Agency, Lockbox Service Provider, etc.) or developed manually by the Contractor.
178	<p>The Reporting and Reconciliation Plan shall describe each provided report or report set and the schedule for providing it along with a sample of each report set. This includes but is not limited to:</p> <ul style="list-style-type: none"> • daily reconciliation report; • monthly reconciliation report; • quarterly reconciliation report; • annual reconciliation report; • description of financial and cash/check handling controls for the CSCs and • other operations and financial reports as needed to fully reconcile and meet the operations Requirements.

4.2.17. Records

179	The Contractor shall meet all data retention Requirements, including durations for retention, as set forth in the Security Standards. The Contractor shall make every effort, within practical business and cost constraints, to purge the personal account information of an account that is closed or terminated. In no case shall the Contractor maintain personal information more than four years and six months after the date an account is closed or terminated. The Contractor shall periodically audit the BOS to verify that it is in conformance with the retention policy.
180	<p>If specific documents or data retention Requirements are not covered in the Security Standards, or the retention Requirement is greater in other applicable Requirements, the Contractor shall maintain records, for the duration of the Agreement period, in compliance with the longer retention period Requirement. Other applicable Requirements include but are not limited to:</p> <ul style="list-style-type: none"> • GAAP; • record retention policies for the Authority; • IRS Requirements; • The California State Archives Data Retention Schedule; • all applicable federal, state, local and other laws and regulatory matters and • Security Standards.
181	Requirements and standards for records management and retention may change over the term of the Agreement. The Authority will provide any updates to its internal policies and procedures that may impact the CSC records and retention Requirements; however, it is the Contractor's responsibility to ensure it is aware of any changes to relevant standards, statutes, and/or rules beyond those of the Authority, and to incorporate such changes in accordance with the provisions of the Agreement.
182	The Contractor shall be responsible for data retention and purging of all paper records, in accordance with the Authority's retention policy and all of the Requirements related to records retention. In the event of a conflict between Requirements, the Contractor shall immediately notify the Authority.
183	The Contractor shall maintain records and data essential to providing objective evidence of quality, and these records shall be made available to the Authority upon request.
184	<p>Quality-related records and data shall include but not be limited to:</p> <ul style="list-style-type: none"> • inspection and test results; • records of Subcontractor Quality programs; • change request documentation; • Customer Satisfaction Survey results;

	<ul style="list-style-type: none"> operational reviews and walk-throughs and results of internal and Contractor audits.
185	The Contractor shall maintain records in a manner that allows easy access and analysis.

4.2.18. Management Reporting

186	<p>The Contractor shall prepare and submit to the Authority a Monthly Operations Report in an Approved format, on an agreed-upon day each month. This report shall provide the information required for the Authority to verify the Contractor performance as reported by the Contractor, including but not limited to:</p> <ul style="list-style-type: none"> Project Oversight Report; Contractor Performance Report (including performance against the Performance Measures); monthly operations invoices for the corresponding period; three-month and one-year look forward for budgeted staffing based on estimated volumes; other agreed-to CSC Operations reports; updates to documents and plans which have occurred in the previous month and updated action item list and Approved meeting minutes from the previous month.
187	The Monthly Operations Report package shall detail the Contractor's performance against the Performance Measures (Contractor Performance Report) in tabular and graphical formats. The Contractor shall use reports and other data from operations as Approved, to conduct an analysis of the data and summarize the results. The basis for the data must be the BOS reports and all data must be reconciled against the appropriate BOS report(s).
188	The data shall be presented in a graphical and tabular format showing the Contractor's comparative monthly performance over time.
189	The presentation of the information shall be clear, concise, and professionally organized and formatted.
190	Any failures to meet the Performance Measures shall be identified and details submitted, including the Contractor's plan to correct such occurrences. The associated non-compliance performance adjustment for such failures shall be summarized and tabulated with the total non-compliance performance adjustment provided.
191	At a minimum, the Contractor's Monthly Operations Report shall include the reports listed below; however, the final list of documents to be included shall be developed and Approved as a part of the Operations Plan.

	<ul style="list-style-type: none"> • Project Oversight Report: This report summarizes the Contractor's Project activities for the reporting period, including major accomplishments, issues and summary reporting. The Project Oversight Report also shall include an updated action items list that tracks all open items to be resolved by the Contractor. The list shall include task description, date created, owner, status, priority, impact/justification, completion due date and notes pertaining to the completion of each task. A status of operational changes shall be included in the Report. The Contractor shall provide status on all existing and new BOS issues that affect operations. The Contractor also shall make recommendations for innovations, processes and BOS improvements and other suggested changes, which will improve customer service or increase operational efficiency. • Operations Reports: This suite of reports shall provide the details required to support the Project Oversight Report, including but not limited to: customer contacts, mail handling and Notification response; Case handling; transponder Fulfillment; payments processed; customer disbursements processed; the Authority's and Interoperable Agencies' settlements processed; returned payments processed; chargebacks processed; inventory item Fulfillment and balancing, and reconciliation. Reports related to ongoing Customer Satisfaction Surveys and QA activities and translation services shall also be provided. • Refund account reconciliation and request for replenishment: Contractor shall be responsible for issuing customer and violator refunds. Contractor will provide documentation of refunds that were issued. The Contractor shall provide related account and Violation reconciliation reporting to the Authority at least monthly and in accordance with the Operations Plan. • Contractor Performance Report: The Contractor shall be fully responsible for the CSC Operations meeting or exceeding required performance. Failure to do so may result in the assessment of non-compliance performance adjustments as set forth in Volume IV Performance Measures. The Contractor shall use the Approved tracking and reporting methods to prove its monthly performance against the Performance Measures. • Monthly Operations Invoices: The Authority shall receive a Contractor's invoice for the period corresponding to the Monthly Operations Report. The invoice shall detail the specific amounts due from the Authority. Contractor shall address costs that are netted out from the Contractors toll revenue payment to the Authority, for example credit card fees and collections fees. Any associated Liquidated Damages shall be separately netted out with detailed supporting documentation. The Authority will not pay operation invoices that are not accompanied by the complete and accurate Approved Monthly Operations Report package.
192	<p>Any performance deficiency the Contractor proposes to have excluded from the non-compliance performance adjustment calculation shall be documented on the Approved Waiver Form and explained in detail, with supporting documentation sufficient for the Authority to make a determination as to the acceptability of the exclusion. If the Authority needs additional information to make a determination the Contractor shall provide such information expeditiously. Adjustments will not be considered until full required documentation is provided by the Contractor.</p>

193	The Waiver Form must be submitted within thirty (30) calendar days of the affected invoice in order to be considered by the Authority.
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4.2.19. Training Plan

The Contractor shall provide a training program to educate Contractor staff, the Authority and others on the BOS and CSC operations, as described in Section 5 Training. The Contractor is responsible for providing a Training Plan that describes the approach to training activities.

194	The Contractor shall develop and maintain a Training Plan, subject to Approval by the Authority, in accordance with the Approved Baseline Implementation Schedule.
195	The Training Plan shall describe the plan for training CSC Operations staff and Authority-designated individuals and shall outline the required operational/maintenance and BOS knowledge for each position to be gained from the training. For each BOS position/user type, the plan shall include a training instructor guide, training manual and other materials to be used in training.
196	The Training Plan shall include a schedule for regular staff training, follow-up training and continuing education for staff.
197	The Training Plan shall describe the approach to training administrators, end users at different levels, maintenance and support personnel, including but not limited to:
	• overall description of the training program;
	• training techniques;
	• training delivery schedule;
	• how training will occur with staff working on live operation;
	• recurring training through life of the Agreement;
	• names and descriptions of each training class;
	• purpose of each training class;
	• who should attend the class;
	• qualification Requirements for trainer;
	• minimum qualifications for personnel attending the class;
	• duration of the class;
	• training materials, including syllabus, schedule, training goals, manuals, guides, other support materials and techniques to be used;
197	• data preparation, such as test accounts and test transactions/trips;
	• required equipment and

	<ul style="list-style-type: none"> • facility Requirements.
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4.2.20. Maintenance Plans

The Contractor shall develop and submit the Maintenance Plans listed below that describe how the Contractor plans to perform the Maintenance of the BOS and all Hardware, Software and systems at the BOS facilities and CSC throughout the Operations and Maintenance Phase. The Contractor shall have appropriate BOS documentation available to all maintenance and Software support personnel, as required to perform their respective duties.

4.2.20.1. System Maintenance Plan

198	The Contractor shall develop and submit the System Maintenance Plan that defines the approach to services, staffing and resources to fulfill the BOS System Maintenance Requirements. The Contractor shall identify the Contractor's maintenance responsibilities and shall include but not be limited to:
	<ul style="list-style-type: none"> • organizational structure, organizational chart and job descriptions and responsibilities;
	<ul style="list-style-type: none"> • staffing plan;
	<ul style="list-style-type: none"> • approach to training;
	<ul style="list-style-type: none"> • detailed BOS monitoring Requirements;
	<ul style="list-style-type: none"> • staff schedule and locations;
	<ul style="list-style-type: none"> • third-party system support agreements overview;
	<ul style="list-style-type: none"> • location of offsite data storage;
	<ul style="list-style-type: none"> • schedule of all System Maintenance activities, including anticipated Upgrades/Enhancement releases;
	<ul style="list-style-type: none"> • description of all System Maintenance related communication methods;
	<ul style="list-style-type: none"> • maintenance procedures, communication protocols and Approval processes for BOS Upgrades, Software deployments, scheduled maintenance activities, change management and scheduled downtime;
	<ul style="list-style-type: none"> • maintenance procedures and communications protocols for unscheduled downtime;
	<ul style="list-style-type: none"> • communication Protocol for coordination with Interoperable Agencies and Third-Party Service Providers and Business Partners and WICs;
	<ul style="list-style-type: none"> • communication protocol for coordination with the Authority's other toll system vendors;

	<ul style="list-style-type: none"> • trouble reporting processes, notification protocols for issues and failures, and maintenance reporting processes;
	<ul style="list-style-type: none"> • prioritization, response, escalation, and repair processes;
	<ul style="list-style-type: none"> • spares levels, equipment and third-party Software warranty tracking and return material processes;
	<ul style="list-style-type: none"> • monitoring maintenance performance for compliance with Performance Measures;
	<ul style="list-style-type: none"> • sample maintenance reports and reporting processes;
	<ul style="list-style-type: none"> • processes for supporting internal and external audits;
	<ul style="list-style-type: none"> • Security Standards compliance monitoring, Upgrades and safeguards;
	<ul style="list-style-type: none"> • system intrusion monitoring and safeguards;
	<ul style="list-style-type: none"> • equipment replacement/refresh schedule;
	<ul style="list-style-type: none"> • Upgrades to third-party Software and tools and
	<ul style="list-style-type: none"> • processes in place to meet Performance Measures.

4.2.20.2. Software Maintenance Plan

199	<p>The Contractor shall develop and submit a Software Maintenance Plan that defines the approach to services, staffing and resources to fulfill the Software Maintenance Requirements and warranty provisions as set forth in the Agreement, including but not be limited to the following elements:</p>
	<ul style="list-style-type: none"> • organizational structure, organizational chart with job descriptions and responsibilities;
	<ul style="list-style-type: none"> • staffing plan;
	<ul style="list-style-type: none"> • approach to staffing and training;
	<ul style="list-style-type: none"> • approach to receiving and prioritizing Software defects (bugs);
	<ul style="list-style-type: none"> • reporting, categorization, prioritization and disposition of Software defects;
	<ul style="list-style-type: none"> • coverage and personnel locations;
	<ul style="list-style-type: none"> • all Software maintenance related communication methods;
	<ul style="list-style-type: none"> • Maintenance procedures, communication protocols and Approval processes for Software Upgrades, scheduled maintenance activities, change management and scheduled downtime;
	<ul style="list-style-type: none"> • documented change control procedures;

	• maintenance procedures and communications protocols for unscheduled downtime;
	• trouble reporting processes;
	• escalation processes;
	• sample maintenance reports;
	• Software updates to comply with Interoperable Agencies' specification changes and Third-Party Service Providers and Business Partners Interface changes;
	• Software updates to be compliant with Security Standards and
	• processes in place to meet Performance Measures.

4.2.21. Third-Party Documentation

Third-Party documentation includes standard commercial documentation for third-party provided Hardware, Software, services and materials.

200	The Contractor shall provide and maintain standard, commercially available, updated documentation for third-party provided Hardware, Software, services and materials provided under this Agreement. This set of third-party documentation shall be available upon request.
201	An electronic copy of all third-party Commercial Off-the-Shelf (COTS) Hardware and Software installation and user manuals, with updates, shall be provided to the Authority.

4.2.22. Manual Requirements

Various manuals shall be provided to educate and guide BOS administration staff and allow the Authority to understand the operations of the BOS.

202	Whenever possible, all data shall be printed on 8-1/2" x 11" sheets; foldouts shall be 11" x 17".
203	Each manual shall include, but not be limited to:
	• a title sheet;
	• revision history;
	• Table of Contents;
	• list of illustrations (if applicable);
	• list of reference drawings and exhibits (if applicable) and
	• a parts list (if applicable).

204	All manuals shall have a consistent look and feel and shall be professionally written and presented in clear and organized fashion.
205	All manuals prepared for the Authority under this Agreement shall be produced, or editable, using Microsoft Office 2016 Suite (or higher if Approved by the Authority). In addition, electronic copies of manuals shall be provided in unsecured Portable Document Format (PDF), if requested by the Authority.
206	Any special Software required to produce scalable typefaces or other graphs shall be provided by the Contractor as part of the documentation for the manuals.
207	All manuals shall be submitted and Approved as a condition of Go-Live.

4.2.22.1. Manual Submissions and Quantities

208	The Contractor shall submit one (1) hard copy of each of the manuals listed below.
209	The Contractor shall submit electronic copies of all manuals listed below.
210	All manuals shall be maintained in electronic format in the Contractor-provided EDMS.
211	The Contractor shall be responsible for producing an additional quantity of the manuals for the Contractor's use, sufficient to fulfill the Contractor's Requirements.
212	The Contractor shall submit the draft and final manuals described below for the Authority's review and comment, in accordance with the Approved Baseline Implementation Schedule. All final versions of manuals shall be provided and Approved before system Go-Live.

4.2.22.2. Manuals to be Submitted

4.2.22.2.1. BOS User Manuals

213	The Contractor shall develop and submit BOS User Manuals to be used by CSC Operations staff to operate the BOS and for training purposes.
214	The Contractor shall develop manuals logically to cover job categories and functions. The manuals shall detail all of the processes, procedures and policies developed by the Contractor that are required to fulfill the Requirements for each of these categories and functions. An example of a functional area is finance, which should include all basic financial responsibilities and functions, including the entire reconciliation process.
215	Each BOS User Manual shall include but not be limited to: <ul style="list-style-type: none"> • screen images detailing the step-by-step activities needed to fulfill a specific functionality; • flowcharts to provide the CSC Operations staff a clear understanding of the workflow; • all screens, reports and data fields, clearly explained using sample formats applicable to the BOS and

	<ul style="list-style-type: none"> • samples of all reports, included in the manual or as an attachment to the manual, with any specific instructions that may apply to a given report.
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4.2.22.2.2. BOS Finance and Financial Controls Manual

216	The Contractor shall develop and submit the BOS Finance and Financial Controls Manual, which shall include but not be limited to:
	<ul style="list-style-type: none"> • detailed descriptions of all procedures to balance and reconcile the BOS;
	<ul style="list-style-type: none"> • detailed descriptions of Financial Account Posting, reporting and reconciliation to the Authority's Bank Accounts;
	<ul style="list-style-type: none"> • detailed descriptions of reconciliation of transactions/trips and revenue within the BOS with each of the Interoperable Agencies and for payments made to the Authority and Interoperable Agencies;
	<ul style="list-style-type: none"> • processes and reports used to reconcile third-party payments processed and money deposited in the Authority's bank;
	<ul style="list-style-type: none"> • detailed descriptions of reconciliation of all collections activity and all exceptions processing;
	<ul style="list-style-type: none"> • detailed descriptions of the screens, reports and functions that allow Contractor or the Authority's finance personnel or independent auditors to access, understand and work with all financial aspects of the BOS;
	<ul style="list-style-type: none"> • complete descriptions of all reconciliation procedures and a non-technical description of the screens, reports and functions;
	<ul style="list-style-type: none"> • illustrations and pictorial diagrams to demonstrate the step-by-step operations required for performing the balance and reconciliation functions and
	<ul style="list-style-type: none"> • included as an attachment to the manual, samples of all relevant reports, with any specific instructions that may be applicable to a given report.
217	Reports included in the BOS Finance and Financial Controls Manual shall have correct and accurate data.
218	The BOS Finance and Financial Controls Manual shall be used to train the CSC finance personnel and the Authority's finance personnel.

4.2.22.2.3. BOS Administrator Manual

219	The Contractor shall provide a BOS Administrator Manual that serves as a guide to the overall management and administration of the BOS, and it shall include but not be limited to:
	<ul style="list-style-type: none"> • detailed Hardware maintenance activities and schedule;
	<ul style="list-style-type: none"> • detailed database maintenance activities and schedule;

	<ul style="list-style-type: none"> • detailed Software monitoring activities and schedule;
	<ul style="list-style-type: none"> • detailed monitoring procedures for file transfers and exception handling;
	<ul style="list-style-type: none"> • detailed procedures and processes for all maintenance activities;
	<ul style="list-style-type: none"> • detailed procedures for backup, archiving and purging data;
	<ul style="list-style-type: none"> • detailed procedures for testing and executing Disaster Recovery and Business Continuity;
	<ul style="list-style-type: none"> • detailed schedule for all preventative maintenance activities;
	<ul style="list-style-type: none"> • scheduled time and maximum run time for all BOS jobs and/or processes;
	<ul style="list-style-type: none"> • technical contact lists for all third-party technical contacts;
	<ul style="list-style-type: none"> • technical contact lists for Hardware, Software providers and third-party support agreements;
	<ul style="list-style-type: none"> • details and copies of all third-party system support agreements;
	<ul style="list-style-type: none"> • general information, such as maintenance shifts, code of conduct and other human resource aspects and
	<ul style="list-style-type: none"> • details of the security access system configuration, user access privileges and controls and user tracking processes utilized to ensure system security and to maintain data integrity.

4.2.23. As-Built Documentation

Prior to the Authority's Final BOS Acceptance of the Implementation Phase, as-built documentation shall be provided that documents the final BOS design and Implementation.

4.2.23.1. As-Built System Detailed Design Document

220	After the Approval of the operational test, and prior to the Authority's Final BOS Acceptance of the Implementation Phase, the Contractor shall submit the As-Built SDDD that includes all Software and Hardware changes made during the system development, implementation and testing phases.
221	The Contractor shall submit one (1) hard copy in addition to an electronic version of the As-Built SDDD. Acceptable electronic formats are unsecured Portable Document Format (PDF), Microsoft Office 2016 Suite (or higher if Approved by the Authority) and professional CAD applications.

4.2.23.2. As-Built Drawings

222	The Contractor shall provide the Authority with a complete set of As-Built Drawings, which shall be delivered as one (1) hard copy of the complete sets of drawings. The same shall be delivered in electronic format for all equipment, network and Hardware installed and furnished as part of the BOS. As material changes are made to the system by the Contractor shall update the As-Built Drawings to reflect the current status.
223	<p>The As-Built Drawing sets shall include but not be limited to:</p> <ul style="list-style-type: none"> • all schematics; • logic diagrams; • Hardware layouts; • wiring diagrams; • interconnection diagrams; • installation diagrams; • cable schedule; • Interface details; • facility build-out details and • network diagrams.
224	The Contractor shall update the latest drawings with red lines as changes are incorporated during the installation process. At the completion of the installation, the Contractor shall gather all red line drawings.
225	The red line drawings shall be verified and incorporated into a final As-Built Drawing package. This final as-built package shall include all updated installation drawings, shop drawings and sketches, plans and other drawing types that were used to install the BOS.

5. TRAINING

The Contractor shall provide comprehensive training for all aspects of the BOS and CSC Operations including training, operational procedures, policies and guidelines, and rules of conduct, including customer Interface. Training shall be delivered to the Authority's personnel and Contractor's personnel. Training shall be ongoing throughout the Implementation and Operations and Maintenance Phases.

226	The Contractor shall be solely responsible for supplying the BOS and all materials necessary to complete the delivery of the training program.
227	The Contractor's program shall include but not be limited to computer instruction, training aids and manuals as required.
228	Contractor's training shall be hands on and use actual BOS Software in the training environment.
229	The Contractor shall produce all training materials, documents and manuals in hard copies.
230	When changes or new functionality is provided in the BOS, the Contractor shall update the training materials and train staff on such changes/new functionality.
231	All Authority training shall include a review and description of each of the appropriate Authority's processes and procedures with actual BOS Software.
232	The Authority shall have the right to attend any training sessions.
233	The Contractor shall provide comprehensive training related to all aspects of the BOS administration, BOS functionality and CSC Operations.
234	The Contractor shall employ a training manager to lead all training courses and subsequent ongoing training activities.
235	The Contractor shall train Authority's staff to view all real-time aspects of BOS processes/queues and CSC Operations statistics/queues, as well as research and report on all aspects of the BOS.
236	The Contractor shall cross-train staff from other areas of operations or management for peak period, emergency or temporary assignments to provide for staff redundancy.
237	<p>The Contractor's training manager shall identify the training needs, plan, design, and develop all the training curriculum and materials for the implementation and management of the CSC's on-going training program. The types of training include, but are not limited to:</p> <ul style="list-style-type: none"> • customer service and integrity skills ("soft skills") training; • Authority's FasTrak, Violation and payment processing Business Rules and facility specific information ("content training"); • different operational and facility characteristics of Interoperable facilities;

	<ul style="list-style-type: none"> • use of the BOS, including all customer contact systems and any other applicable systems; • CSC Operations SOPs and • PII, PCI, data and physical security.
238	<p>The Contractor's training program shall include training at different times and for different reasons during the course of the Operations and Maintenance Phase, including but not limited to:</p> <ul style="list-style-type: none"> • new hire – this training provides the new employee a thorough, in-depth training covering all of the skills and information required to fully understand and perform their job; • refresher – this training provides additional training focused on topics on which the attendees have been previously trained but which the training manager or other Authority management staff identified as requiring additional training for a group of employees; • remedial – this training is individually focused on the needs of a particular employee(s) based on customer satisfaction feedback, management observation or employee request; • new job/promotion – this training is required when an employee changes jobs or gains additional responsibilities and • new content/program – this training is required when the Authority introduce a new program or makes a significant change to the SOPs or the BOS.
239	Contractor training shall cover all functional areas depending on the specifics of each individual user role and job functions.

5.1. Training Courses

5.1.1. System Operation Overview Course

240	The Contractor shall provide a system operation overview training course for the Authority personnel who require a general understanding of all aspects of the BOS and CSC Operations.
241	The Contractor shall ensure class sizes and the number of training hours provided are sufficient to provide a general understanding of all aspects of the operation.

5.1.2. Customer Service Representative Course

This course is for customer service personnel who need to understand all aspects of the direct customer service.

242	The Contractor shall provide a customer service course for staff that need to understand all aspects of the direct customer service functionality, with focus on contact management, account management, Violations processes, payments, Business Rules, Express Lanes facility characteristics, external facing website, etc.
243	The Contractor shall provide an appropriate number of training sessions for the customer service course, ensuring class sizes and the number of training hours provided are sufficient to provide an understanding of all aspects of the operation related to customer service.

5.1.3. BOS Finance and Financial Controls Course

This course is for financial management and auditing personnel who need to understand all aspects of the Operation, particularly those related to financial accounting, reconciliation, audit, and management.

244	The Contractor shall provide a BOS finance and audit training course for financial management and auditing staff that need to understand all aspects of the operation, with focus on financial accounting, reconciliation, audit and management.
245	The Contractor shall provide an appropriate number of training sessions for the BOS finance and financial controls course, ensuring class sizes and the number of training hours provided are sufficient to provide an understanding of all aspects of the operation related to financial accounting, reconciliation, audit and management.

5.1.4. Operations Management Course

This course is for CSC Operations personnel providing hands-on training on the BOS including performance reporting, including all operational performance monitoring (for example, call queues, call statistics, image review queues, etc.); all BOS monitoring (for example, mail queues, status and quantity of all Notifications pending and sent, transponder Fulfillments, status of Interfaces and file exchanges), and call center and IVR configuration.

246	The Contractor shall provide an Operations Management Course for all personnel who require a detailed understanding of the BOS reporting and monitoring. This course also covers configuration of the telephony system.
247	The Contractor shall provide an appropriate number of training sessions for the Operations Management Course, ensuring class sizes and the number of training hours provided are sufficient to provide a detailed understanding of the operations of the BOS and how to access information and reports from the BOS.

5.1.5. BOS Users Course

248	The Contractor shall provide a BOS Authorized Users training course for all personnel who require a detailed understanding of the operations of the System and how to access information and reports from the BOS on items such as status, alarms, performance, transactions and revenue.
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249	The Contractor shall provide an appropriate number of training sessions for the BOS Authorized Users course, ensuring class sizes and the number of training hours provided are sufficient to provide a detailed understanding of the operations of the BOS and how to access information and reports from the System.
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5.2. Training Materials

250	All training materials should comply with applicable PCI and PII standards.
251	Draft copies of all training materials shall be submitted by the Contractor to the Authority for review, comment and Approval prior to final printing of quantities required for training.
252	The Authority shall have the right to require the Contractor to provide additional interim drafts at no additional cost should draft training materials submitted not be of adequate quality or have missing or incorrect information.
253	Contractor shall provide regular updates to training materials to incorporate any changes to the BOS or operational processes.
254	For each training course, the Contractor shall provide the materials listed in the following sections.

5.2.1. Instructor Guides

255	The Contractor shall provide an instructor guide for each training course, including but not limited to:
	• course agenda;
	• course objective;
	• procedures for managing a training session;
	• resources and facilities required, including Desktop Environments, power and communications Requirements;
	• detailed lesson plans;
	• a description of training aids and items to aid in on-the-job performance (such as where applicable, pocket guides or reference sheets);
	• tests to be administered to assure satisfactory completion and
	• instructions for using any audio-visual support equipment or materials.

5.2.2. Training Aids

256	The Contractor shall provide all training aids necessary to successfully complete the course agenda and meet the course objective.
257	The Contractor shall provide a way for all trained personnel to access training documents, aids and tips in an online, electronic format for ongoing reference.

5.2.3. Student Workbook

258	For each course, the Contractor shall provide a student workbook, including but not limited to: <ul style="list-style-type: none">• course agenda;• course objectives;• schedule of sessions;• copies of all overheads and visuals and• lesson outlines and summaries.
259	The Contractor shall supplement the material provided in the student workbook with additional material (as necessary), such as operations and user manuals. If such material is used, appropriate cross-references shall be included in the student workbook to identify the complete set of training materials provided to the student.

5.3. Scheduling and Preparation for Training

260	The Contractor shall provide a minimum two (2) weeks notice to the Authority and work with the Authority on the timing for each training session. The Authority will identify a list of participants the Contractor shall notify to schedule their participation in the training.
261	The Contractor shall perform all scheduling.

6. MOBILIZATION REQUIREMENTS

The mobilization of the BOS and CSC Operations is a major undertaking that will require careful preparation, planning and coordination in multiple functional areas and on many levels to ensure a smooth beginning to operations. The Contractor is responsible for the mobilization in accordance with the BOS Installation Plan and CSC Operations and Facility Mobilization Plan. Close coordination will be required between the ETTM System Contractor, the Authority and the Contractor.

6.1. Operations Mobilization and Facility Coordination

The operations mobilization and facility coordination include all activities necessary to establish and operate the I-405 CSC and WIC in accordance with the Agreement and to coordinate the design of the Authority provided facility. These activities include comprehensive coordination with the Authority, the Authority's design and construction contractors, and other Authority contractors housed at the facility with regards to CSC and WIC design, scheduling of facility occupancy and installation, staff recruitment and training, ordering of supplies, establishment of all necessary services and developing all SOPs for the entire operation. The Contractor shall coordinate with the ETTM System Contractor on applicable portions of the Approved Baseline Implementation Schedule.

262	<p>The CSC Operations Manager and the Mobilization and Facility Coordination Manager shall lead the Contractor's staff in planning and implementing the activities required for operation of the CSC in accordance with the CSC Operations and Facility Mobilization Plan. These tasks include but are not limited to:</p>
	<ul style="list-style-type: none"> • obtain a thorough understanding of the functions and capabilities of the BOS;
	<ul style="list-style-type: none"> • produce all required plans and documentation;
	<ul style="list-style-type: none"> • recruit CSC staff;
	<ul style="list-style-type: none"> • coordinate with Third Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • make any required Approved modifications to the facilities (those required beyond the new facility design inputs provided by the Contractor); ;
	<ul style="list-style-type: none"> • plan and conduct training;
	<ul style="list-style-type: none"> • assist with the selection and implementation of survey solution, IVR, system recordings, Self-Service Website, and Self-Service Mobile Application (Phase II) and
	<ul style="list-style-type: none"> • meet regularly and coordinate with the Authority, the ETTM System Contractor to perform the Work.
263	<p>The Mobilization and Facility Coordination Manager shall lead the Contractor's staff in planning and implementing the activities related to the new CSC and WIC facility operation of the CSC in accordance with the CSC Operations and Facility Mobilization Plan. These tasks include but are not limited to:</p>

	<ul style="list-style-type: none"> meet regularly with the Authority, the Authority's design and construction contractors, and other Authority contractors that will be housed at the facility to plan, provide design input to the new CSC and WIC facility layout, space planning, network, cabling, power, furnishings, physical security, and Surveillance CCTV etc.; review and provide comments to all types of CSC plans; coordinate with other contractors and provide a detailed schedule for facility occupancy and facility mobilization and coordinate the procurement and installation of all BOS and CSC Operations network and communications lines with the communications providers.
264	The Contractor shall develop and conduct an Operational Readiness Demonstration and conduct walk-throughs for each facility with the Authority.
265	As an outcome of the Operational Readiness Demonstration and walk-throughs, a punch list shall be developed and resolution of each item Approved by the Authority.
266	The Contractor shall track, status and resolve all pre-mobilization punch list items (as designated and Approved by the Authority) prior to mobilization and track, status and resolve all post-mobilization punch list items (as designated and Approved by the Authority) during the Operations and Maintenance Phase. Until resolved, the status of post-mobilization punch list items shall be provided in all Contractor performance reports and meetings.

6.2. Schedule, Installation and Mobilization

267	The Contractor shall mobilize CSC Operations in accordance with the CSC Operations and Facility Mobilization Plan and the Approved Baseline Implementation Schedule.
268	The Contractor shall install the BOS in accordance with the BOS Installation Plan and the Approved Baseline Implementation Schedule.
269	The Contractor's schedule shall be sufficiently flexible to accommodate modifications or changes, such as early completions or delays in start or completion of dependent work by the Authority and/or the ETTM System Contractor.

6.3. Mobilization of the BOS and CSC Operations

BOS and CSC Operations mobilization includes all activities necessary to begin CSC Operations. The Contractor's Mobilization Manager shall lead the mobilization in accordance with the BOS Installation Plan and CSC Operations and Facility Mobilization Plan and must coordinate with the ETTM System Contractor and Authority to ensure that the mobilization meets the Approved Baseline Implementation Schedule.

270	The Contractor shall manage and conduct mobilization in conformance with BOS Installation Plan and CSC Operations and Facility Mobilization Plan and Approved Baseline Implementation Schedule.
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271	The mobilization activities shall be coordinated with the Authority, the ETM System Contractor, and Third-Party Service Providers and Business Partners, and shall be Approved by the Authority.
272	The Contractor shall prepare internal and external communication procedures, as part of the BOS Installation Plan and CSC Operations and Facility Mobilization Plan, to effectively and professionally manage communications of potential impacts during the mobilization.

6.4. Acceptance of Operational Readiness

Prior to Go-Live the Contractor shall demonstrate to the Authority that the successful CSC and facility mobilization is complete, and that the Contractor is ready to commence complete operation of the CSC and performance of all of the Work.

273	The Contractor shall demonstrate that the CSC Operation has achieved Operational Readiness in accordance with the Approved Baseline Implementation Schedule.
274	Procedures for demonstrating for the Operational Readiness Demonstration shall be provided by the Contractor to the Authority for review and Approval at least three (3) months prior to the scheduled demonstration date.
275	<p>The Contractor shall have completed all of the predecessor tasks and milestones in the schedule in order to achieve Acceptance of Operational Readiness, including but not limited to:</p> <ul style="list-style-type: none"> • selection, build-out and equipping of all Contractor operated facilities; • development and Approval of all required documentation; • recruitment, hiring and training of all staff in accordance with the Operations Plan and sub-plans; • implementation of all applicable aspects of the BOS Installation Plan and CSC Operations and Facility Mobilization Plan and all operations mobilization activities and • completion of Operational Readiness Demonstration using the BOS, facilities and Contractor staff.

6.5. End of Agreement Transition

The Contractor acknowledges the services it provides under the terms of the Agreement are vital to the successful operation of the BOS and said services shall be continued without interruption. Upon expiration or termination of the Agreement, a successor may be responsible for providing these services. The Contractor agrees to exercise its best efforts and cooperation to affect an orderly and efficient transition to a successor.

As part of the End of Agreement transition, the Authority may wish to operate and maintain BOS, requiring the transfer of equipment, leases and license from the Contractor to the Authority.

276	The Contractor shall cooperate with any future transition of the BOS to a future BOS Contractor, as required by the Authority.
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277	The Contractor shall develop with the successor, an End of Agreement Transition Plan describing the nature and extent of transition services required as well as the operational Requirements necessary for the migration of operation from the Contractor to the new contractor.
278	The Contractor shall update the End of Agreement Transition Plan no more than six (6) months prior to the transition date.
279	The Contractor shall provide sufficient experienced personnel in each division/element of Work during the entire transition period to ensure the quality of services is maintained at the levels required.
280	The Contractor shall provide sufficient staff to help the successor maintain the continuity and consistency of the services required.
281	The Contractor shall provide the necessary Software and BOS support services to assist the successor in setting up the systems, transferring of appropriate licenses and third-party Software and transitioning all BOS data (including third party data) required to sustain uninterrupted service in areas in which the Contractor is responsible for the Work. For example, accounts and violations in collections.
282	The Contractor shall support the Authority during the procurement process by updating all system documentation and providing new documentation as required that details the current system.
283	Within the End of Agreement Transition Plan, the Contractor shall provide descriptions of the equipment, leases and licenses that are available for purchase and transfer to the Authority as part of the End of Agreement Transition.
284	The Contractor shall not prevent the successor from conducting interviews with Contractor employees outside of normal business hours in a manner that will not disrupt current operations.
285	The Contractor shall not prevent employees from changing their employment to the successor if the employees wish to do so.
286	The Contractor shall provide for the orderly transition of the facilities, equipment, materials, documents, inventory and work in progress to the successor.

7. TESTING REQUIREMENTS

7.1. General

The Contractor shall provide the full range of test planning, testing design and services required to ensure the BOS adheres to the Requirements. The BOS testing regimen shall take place during the implementation period identified in the Approved Baseline Implementation Schedule and shall follow the Master Test Plan and Individual Test Plan.

The Authority requires that configuration changes be treated as equivalent to Software development changes within the testing process. Wherever possible, the Authority requires that the Contractor implement testing processes which are automated and efficient.

The Requirements described in this section detail the labor, materials, facility and support services necessary to test the BOS for functionality and performance, its integration to all Third-Party Service Provider and Business Partners.

287	The Contractor shall prepare and conduct the various tests in conformance with the Master Test Plan and applicable individual test plans.
288	<p>The Contractor shall prepare and conduct the various tests (outlined for reference immediately below and with detailed Requirements in subsequent sections), including but not limited to:</p> <ul style="list-style-type: none"> • Unit Testing; • System Integration Testing; • User Acceptance Testing; • On-site Installation and Commissioning Testing and • Operational and Acceptance Testing.
289	<p>The Contractor shall develop test scripts for Authority approval and use specialized automated testing Software, wherever possible, to, including but not limited to:</p> <ul style="list-style-type: none"> • create test scripts; • create use cases with pre-defined input and output; • control the automated testing; • exercise all conditions, configurations and scenarios; • conduct performance testing; • conduct security and PCI testing; • conduct regression testing; • compare actual test outcomes to expected outcomes; • test reporting;

	<ul style="list-style-type: none"> • conduct load testing;
	<ul style="list-style-type: none"> • conduct user Interface testing and
	<ul style="list-style-type: none"> • conduct sustained operational testing.
290	The Contractor shall make the BOS available for use by the Authority in testing the readiness of the CSC Operations staff during operating hours and as necessary during the testing period.
291	The Contractor shall provide all necessary resources and facilities to conduct all tests.
292	During the Implementation Phase, the Contractor shall provide an "online commercial Software" defect tracking system, accessible by the Authority via browser-based Internet, to document and track all defects identified as part of BOS testing and any subsequent actions taken to correct those defects.
293	The Authority's Approval of any aspect of testing shall not relieve the Contractor of its responsibility to meet all Requirements.
294	<p>The defect tracking system shall be capable of the following, including but not limited to:</p> <ul style="list-style-type: none"> • rating (severity) defects; • categorizing defects; • prioritizing defects; • logging the date/time the defect was reported; • the user who reported the defect; • the erroneous behavior; • the details on how to reproduce the defect; • the developers who worked on the defect; • life-cycle tracking and • reporting.

7.1.1. Testing Sequence and Logistics

295	<p>The Contractor shall obtain Approval from the Authority and shall have met the entry conditions prior to start of each test, including but not limited to:</p> <ul style="list-style-type: none"> • Approval of all predecessor tests; • Approved test procedures for each individual test; • Approved test schedule;
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	<ul style="list-style-type: none"> • Approved inventory of test cases and scripts; • successful closeout of all outstanding pre-test issues; • successful dry run testing with results provided to the Authority; • test data set is created and loaded into test environment; • submittal of the latest Approved version of the RTM showing test validation against the Requirements and • site and BOS are ready to test.
296	After the completion of each test, the Contractor shall submit for the Authority's review and Approval a test report that documents the results of the test.
297	The test report shall include the results of the test; any anomalies and issues identified; comments provided by the Authority; the test data and the corrective action/resolution of each item, and the results of any re-tests necessary to successfully complete each testing phase.
298	The Contractor shall facilitate and support the Authority's participation in the testing and witness each test. The Contractor shall provide the Authority with full access to the test data and results of the test.
299	Testing shall not be considered complete by the Authority until all anomalies and "punch-list" items are closed-out, and the final test report is Approved by the Authority.

7.2. Required Tests

7.2.1. Unit Testing

Unit Testing is defined as a Software testing method by which individual units of source code, sets of one or more computer program Modules together with associated control data, usage procedures, and operating procedures, are tested to determine whether they are fit for use. A unit could be an entire Module, but it is more commonly an individual function or procedure. Unit Testing is the first level of testing and is performed prior to System Integration Testing.

300	The Contractor shall conduct Unit Testing, including but not limited to:
	<ul style="list-style-type: none"> • testing for all functional elements of the BOS for conformance with the Requirements, Approved design and Business Rules; • testing of 100% of all BOS components and negative testing for controlled systems features; • testing using actual data generated by the ETTM System Contractor and simulated data as needed; • testing with Third Party Service Provider and Business Partners and Interoperable Agencies test environment;

	<ul style="list-style-type: none"> • testing each Module of the BOS application Software for compliance to coding standards related to screen validations, Web navigation, configuration changes, PMMS including all errors, exceptions and failures, backend programs and processes (using simulated data);
	<ul style="list-style-type: none"> • testing the desktop computer Interfaces and all peripherals;
	<ul style="list-style-type: none"> • testing of user roles and security elements;
	<ul style="list-style-type: none"> • all necessary Hardware and Software for the test;
	<ul style="list-style-type: none"> • all necessary personnel for the test and
	<ul style="list-style-type: none"> • updated RTM, SDDD, Operations Plan and Business Rules so functionality can be reconciled to the documentation.

7.2.2. System Integration Testing (SIT)

System Integration Testing (SIT), or end-to-end testing, is defined as a type of Software testing that seeks to validate the Interfaces between individual components and the completely integrated BOS meets its Requirements. The Contractor shall conduct SIT, compressing logical days to accommodate process escalation and transaction/trip and Violation aging. Multiple testing cycles may be executed depending on defects found and their severity. The Contractor shall also conduct load/performance testing as part of the SIT

301	The Contractor shall be responsible for creating test data as an entry criteria for the SIT. It is anticipated that significant test data will be required and will be defined in the test plan.
302	The Contractor shall conduct SIT which shall include end-to-end Integration Testing, Interface testing, security testing, performance/load testing.
303	In the event Third-Party Service Providers and Business Partners and Interoperable Agency test environment systems are not available, the Contractor shall test using simulated Interfaces and data to validate the data exchange.
304	The Contractor shall use the most newly provided, developed or updated ICDs for all Interfaces and portals.
305	<p>The Contractor shall conduct SIT, including but not limited to:</p> <ul style="list-style-type: none"> • testing all functional elements of the BOS using the procedures for Software integration testing, including the end-to-end testing from receipt of transactions/trips through Posting to the accounts and Violation processing; • reports testing using created data, simulated and keyed-in data; • verification and validation that the various BOS environments are operating per the Requirements;

	<ul style="list-style-type: none"> • load/performance testing of the entire BOS in terms of user access, including internal and external users on all channels (for example, Self-Service Website, Self-Service Mobile Application (Phase II and optional), IVR);
	<ul style="list-style-type: none"> • load/performance testing of the entire BOS in terms of transaction/trip processing;
	<ul style="list-style-type: none"> • full Disaster Recovery failover testing;
	<ul style="list-style-type: none"> • full Disaster Recovery failover recovery (back to primary BOS) testing;
	<ul style="list-style-type: none"> • validation of all Performance Measures;
	<ul style="list-style-type: none"> • adherence to the Security Standards;
	<ul style="list-style-type: none"> • archiving and purging process testing;
	<ul style="list-style-type: none"> • comprehensive PMMS testing;
	<ul style="list-style-type: none"> • testing using actual data, generated real-time (as if in a real, live production environment) by the ETTM System Contractor;
	<ul style="list-style-type: none"> • all Interface test scripts and documentation required to confirm that the Interfaces are operating properly;
	<ul style="list-style-type: none"> • testing, as directed by the Authority, connecting to test environment systems provided by the Authority, Third-Party Service Providers and Business Partners and Interoperable Agencies (if available);
	<ul style="list-style-type: none"> • exception testing;
	<ul style="list-style-type: none"> • testing the desktop computer Interfaces and all peripherals and
	<ul style="list-style-type: none"> • sustained operations test.

7.2.3. User Acceptance Testing

User Acceptance Testing (UAT) is defined as the testing phase where actual BOS users test the system to validate the operation of the BOS in, according to Requirement, designs, and specifications.

306	The Contractor shall provide all needed support for UAT to include providing environments, provisioning/aging system, running batch jobs, and developing test scripts using use cases.
307	The Contractor shall provide a UAT environment that is production like and separate from other test environments.
308	Ten (10) Business Days prior to the commencement of UAT, the Contractor shall train staff from the Authority and the CSC Operations test team selected to perform UAT.
309	The Contractor shall provide all UAT testers with access to BOS test scripts.
310	The Contractor shall provide test data for UAT that is an extraction and sub-set of production data.

311	During UAT, the Contractor shall develop and retest necessary revisions identified by users during the testing process.
312	The Contractor shall provide technical personnel to support UAT.

7.2.4. Regression Testing

Regression testing is defined as a type of Software testing that verifies that Software previously developed and tested still performs correctly even after it was changed or Interfaced with other Software.

313	The Contractor shall conduct regression testing is to ensure that software changes have not introduced new faults and to determine whether a change in one part of the Software affects other parts of the Software.
314	The Contractor shall conduct regression testing in a Contractor-provided test environment prior to each Software release.

7.2.5. On-site Installation and Commissioning Testing, Mobilization and Go-Live

Onsite Installation and Commissioning Testing is defined as a series of checks and tests to verify equipment installation and function; BOS operation; and inter-systems operation.

315	The Contractor shall conduct Onsite Installation and Commissioning Testing using the BOS production environment including but not limited to:
	• testing that demonstrates the BOS is completely installed and operational in the production environment and the Disaster Recovery location;
	• Software and test data are loaded;
	• PCI application vulnerability testing, certification of elements not available/tested during previous testing;
	• all necessary Hardware and Software for the test;
	• testing PMMS configuration and setup;
	• testing all user roles;
	• testing of internet connectivity and speed;
	• testing the speed of the BOS while performing various functions;
	• testing of cutover to generator in the event of power failure;
	• testing of phone system including IVR;

	<ul style="list-style-type: none"> • testing of Self-Service Website and Self-Service Mobile Application (Phase II and optional); • all necessary personnel for the test and • updated RTM, SDDD and Business Rules so functionality can be reconciled to the documentation.
316	<p>The Contractor shall provide evidence of readiness to conduct mobilization and Go-Live at the BOS production environment, including but not limited to:</p> <ul style="list-style-type: none"> • The Contractor shall utilize the PCI Security Standards Council's Prioritized Approach method to indicate how each PCI Requirement is being addressed. This approach shall be submitted to the Authority along with substantiating evidence for review and Approval; • the transfer of certain historical data to the BOS that may remain in the BOS and • a checklist to verify that mobilization is completed in accordance with the BOS Installation Plan and CSC Operations Mobilization Plan.
317	Upon Approval of the Onsite Installation and Commissioning Testing including evidence of readiness the Contractor shall begin mobilization.
318	Upon verification and Approval of the Operational Readiness Demonstration and all testing the Contractor shall Go-Live.

7.2.6. Commencement of Ramp-up/Customer Services

Upon Notice to Proceed for Ramp-up/Customer Services, the Contractor is notified of the Authority's intent to Go-Live in approximately 120 days.

319	The BOS shall have achieved Commencement of Ramp-up/Customer Services within thirty (30) Calendar Days of the Notice to Proceed for Ramp-up/Customer Services.
320	<p>The Contractor shall have completed the following tasks to achieve Commencement of Ramp-up/Customer Services:</p> <ul style="list-style-type: none"> • the Self-Service Website is available to facilitate full account creation and transponder ordering (actual shipping of transponders will take place closer to road opening); • the Contractor has conducted and successfully completed testing of the Self-Service Website and other functional elements required to facilitate account creation and transponder ordering; • the Contractor has gained approval of all BOS design documents; • the Contractor has gained approval for all CSC operations, CSC facility, mobilization and BOS system installation plans and is on schedule in executing the Approved Plans per the Approved Baseline Implementation Schedule;

	<ul style="list-style-type: none"> • system support is operational and monitoring the operational components of the BOS and
	<ul style="list-style-type: none"> • Software support is operational and available to support the operational components of the BOS.

7.2.7. Operational and Acceptance Testing

Operational and Acceptance Testing is defined as a test focused on the readiness of the BOS to be supported, and/or to become part of the production environment.

321	Following Go-Live, the Contractor shall conduct Operational and Acceptance Testing on the BOS production environment in live operations that provides the following, including but not limited to:
	<ul style="list-style-type: none"> • verification that the Contractor (including the BOS) is compliant with Commencement of Ramp-up/Customer Services;
	<ul style="list-style-type: none"> • verification that the BOS is in conformance with the Requirements for a period of sixty (60) consecutive days, onsite in the BOS production environment;
	<ul style="list-style-type: none"> • successful access of images from the ETTM System and receipt of the trip/transactions;
	<ul style="list-style-type: none"> • reconciliation of all BOS data, transactional and Financial Transactions for a period of sixty (60) consecutive days to verify all data and accounts are being properly processed, reported on and reconciled;
	<ul style="list-style-type: none"> • reconciliation of all transaction/trip and image workflows and filters to verify all transactions/trips and images are being properly processed through the BOS;
	<ul style="list-style-type: none"> • reconciliation of all electronic Interfaces and portals, including Third-Party Service Providers and Business Partners and Interoperable Agencies;
	<ul style="list-style-type: none"> • reconciliation of all account Postings, Financial Transactions, events, etc., to account history entries;
	<ul style="list-style-type: none"> • reconciliation of all Financial Accounts in the BOS for two (2) monthly financial periods;
	<ul style="list-style-type: none"> • archiving and purging process testing;
	<ul style="list-style-type: none"> • disaster recovery testing;
	<ul style="list-style-type: none"> • verification of PMMS operations;
	<ul style="list-style-type: none"> • adherence to required financial audit and reconciliation Requirements and
	<ul style="list-style-type: none"> • adherence to required BOS Performance Measures and reporting.
322	The Contractor shall identify all anomalies and categorize by severity and priority, and all anomalies shall be addressed to the satisfaction of the Authority.

323	If anomalies are identified that are a high severity and high priority during the testing period, the Operational and Acceptance Testing for those functions and any other impacted functions or test areas shall be restarted and shall continue for sixty (60) consecutive days from the day the test was restarted.
324	The Operational and Acceptance Testing shall continue until all the Requirements have been verified and validated in accordance with the MTP and detailed test procedures are completed and Approved by the Authority.

7.3. BOS Acceptance

325	Upon the successful completion and Approval of the Operational and Acceptance Testing, the closure of all punch-list items and completion and submission and Approval of all items required for phase closeout, as set forth in in the Agreement, the Contractor shall be given the Acceptance for the BOS Implementation Phase.
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8. INSTALLATION REQUIREMENTS

This section details the Requirements for the installation or enablement of the BOS at the primary and Disaster Recovery/Business Continuity sites as Approved by the Authority.

8.1. Installation Program

The Contractor shall develop and provide an installation program or provide service documentation that addresses all aspects of the installation or use of the BOS, including all installation design, submissions and coordination for a COTS based solution or service agreements for cloud-based approaches.

326	The Contractor shall be responsible for the design, procurement; installation; cabling; configuration; checklist walk-through, and testing of all Hardware, Software, equipment, Interfaces and communications provided as part of the BOS, if required.
327	The Contractor shall install or enable the BOS at the primary site and CSC locations which meets the specifications outlined in the Requirements and the Approved BOS Installation Plan.
328	The Contractor shall install or provide the Disaster Recovery BOS and Business Continuity at a location which meets the specifications outlined in the Requirements.
329	The Contractor shall provide, install or enable and secure all communication lines required for the primary BOS facility, the Disaster Recovery and Business Continuity facilities and Authority's CSC locations.
330	The Contractor shall provide, install or enable and secure connection points to the BOS as required to accommodate access and communication with Interoperable Agencies and Third-Party Service Providers and Business Partners.

8.2. Compliance to Standards

331	The Contractor shall adhere to all implementation standards, applicable laws, ordinances and codes as required, including but not limited to:
	• the Security Standards;
	• those from the original equipment manufacturer;
	• the National Electric Code (NEC);
	• the Institute of Electrical and Electronics Engineers (IEEE);
	• the Occupational Safety and Health Administration (OSHA);
	• county and city codes, as applicable and
	• the State of California, for areas including but not limited to electrical codes, seismic considerations, calibration, configuration and environmental.

8.3. Equipment Installation Requirements

The Contractor shall be responsible for installation of the BOS, including at the CSC and WICs, as described in these Requirements.

332	The equipment installation design and Implementation for the BOS and CSC Operations shall include but not be limited to:
	<ul style="list-style-type: none"> all Contractor provided equipment, including desktop computer environments and phone systems for two (2) permanent Authority personnel, and desktop computer environments and phone systems for an additional three (3) oversight personnel during the mobilization of the facility through Operational and Acceptance Testing;
	<ul style="list-style-type: none"> Interface with and electronically monitor via the PMMS any Authority or Contractor provided emergency power generation at the I-405 CSC and WIC;
	<ul style="list-style-type: none"> furnishing, installing and testing the Interfaces and connectivity between the CSC facility and the BOS;
	<ul style="list-style-type: none"> furnishing, installing and testing the Interfaces and connectivity to the ETTM System;
	<ul style="list-style-type: none"> validating the connectivity to all Interoperable Agencies as described in these Requirements and validating the connectivity to all external Interfaces to Third-Party Service Providers and Business Partners as described in these Requirements.

8.4. Implementation Checklist Review and Check-off

The Contractor shall complete all implementation activities and Approved Contract Deliverables Requirements prior to the Go-Live date established by the Authority.

333	The Contractor shall develop a checklist that tracks the progress and completion of all implementation activities for the BOS, CSC Operations and Disaster Recovery.
334	The checklist shall detail those items required to complete the implementation process for all Hardware, Software, equipment, Interfaces and communications provided as part of the BOS, including terminations and connections.
335	The checklist shall be used to identify all discrepancies and exceptions, and the Contractor shall be responsible for all corrections.
336	The checklist shall be used to document all changes identified, and all such changes shall be Approved by the Authority.
337	A representative(s) from the Authority shall have the right to observe and Approve the implementation.
338	The Authority shall have the right to perform independent inspections, and the Contractor shall be responsible for the correction of all discrepancies and deficiencies identified during the inspection.

339	A copy of the checklist, signed and Approved by the Contractor, attesting to the completeness of the implementation, shall be provided to the Authority upon the completion of the implementation activities.
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9. GENERAL MAINTENANCE AND SOFTWARE SUPPORT SERVICES REQUIREMENTS

9.1. Operations and Maintenance Meetings

9.1.1. Monthly Performance Review Meetings and Reporting

The Contractor shall conduct Monthly BOS Performance Review Meetings with the Authority. These meetings shall provide the Authority with a detailed understanding and review of the Contractor's and the BOS's performance for purposes of receiving guidance from the Authority, Authority oversight, work planning and invoicing.

340	The Contractor shall manage, facilitate and conduct Monthly BOS Performance Review Meetings with the Authority throughout the Operations and Maintenance Phase. At a minimum, the Project Manager (Implementation Phase), Project Manager (Operations and Maintenance Phase), Software Development Manager and a Contractor's CSC Operations Manager (in-person) shall attend these meetings.
341	The Contractor shall schedule and conduct the Monthly BOS Performance Review Meeting with the Authority to occur no more than one (1) week after the submission of a Monthly BOS Report package by the Contractor.
342	Performance reviews, including the provision of all required performance reporting, shall be provided by the Contractor to the Authority beginning one (1) month after Go-Live for the previous month. Any trip volume fee adjustments associated with non-performance shall not be assessed until the fourth month following Go-Live, for the previous (third) month's performance; however, this does not relieve the Contractor of required performance prior to the third month and shall not constitute a waiver of any Authority rights or remedies under the Agreement in this regard.
343	The Contractor shall ensure all issues are addressed and resolved or are placed on the action item list and scheduled for resolution.
344	In addition to other invoicing and payment Requirements, the Contractor shall provide the required monthly performance reports to the Authority, including all required information demonstrating actual performance relative to the Requirements, before an invoice shall be considered for payment. The monthly performance reports structure shall be identified in the Maintenance Plan.

9.1.2. Monthly BOS and Operations Coordination Meetings

During the Operations and Maintenance Phase, the Contractor shall conduct bi-weekly meetings to coordinate the ongoing operation of the CSC. The Contractor shall be responsible for scheduling these meetings and topics for the meeting shall come from the Contractor; the Authority may provide additional topics. The Authority may attend these meetings at its discretion.

345	The Contractor shall manage, facilitate and conduct the Monthly BOS and Operations Coordination Meetings with the Authority during the Operations and Maintenance Phase in order to understand and prepare for supporting the resolution of BOS-related and Toll Facility related issues and other activities which will affect the CSC Operations.
346	During the Monthly BOS and Operations Coordination Meetings, the Contractor shall address BOS and operational topics for which input is needed from the Authority, including but not limited to reviewing the Contractor's defect tracking report and prioritizing fixes; coordinating Upgrades and Enhancements Approved by the Change Control Board (CCB); reviewing Security Standards and compliance; coordination of scheduled BOS downtime; resolving issues related to personnel and reviewing the Contractor's CSC and WIC support.
347	The Contractor shall identify all known BOS and operational issues and required discussion topics and provide them to the Authority in advance of the meeting and update the agenda again just prior to the meeting.

9.1.3. Weekly Coordination and Status Meeting with the ETTM System Contractor

During the Operations and Maintenance Phase, there will be a series of working meetings between the Contractor and the ETTM System Contractor to provide details on new and open issues and work through possible solutions. The Contractor shall be responsible for coordinating and scheduling these meetings and topics for the meeting shall come from the Contractor, the ETTM System Contractor and the Authority.

348	The Contractor shall manage, facilitate and conduct the Weekly Coordination and Status Meeting with the ETTM System Contractor. These meetings shall be for the purpose of coordination on all new and ongoing issues. The Authority shall be invited to attend these meetings.
349	During the Weekly Coordination and Status Meetings, the ETTM System Contractor shall review the accuracy and sufficiency of reports, review any discrepancies, and to coordinate any changes to the BOS or ETTM System (such as, bug fixes, Upgrades and Enhancement).
350	The Contractor shall identify all known BOS, ETTM System and operational issues and required discussion topics and provide them to all attendees and the Authority in advance of the meeting and update the agenda again just prior to the meeting.

9.1.4. Change Control Board Meetings

During the Operations and Maintenance Phase, the Contractor shall conduct the CCB Meetings. The Contractor shall be responsible for conducting and scheduling these meetings in accordance with the Authority developed change control process.

351	The Contractor shall manage, facilitate and conduct CCB Meetings with the Authority (meeting may be combined with the ETMM System Contractor CCB meeting at the Authority's discretion) on an as-needed basis. These meetings shall be for the purpose of providing status, reviewing, Approving and prioritizing BOS changes (such as, Software enhancements, Software Upgrades, Hardware Upgrades, major bug fixes) and operations changes (such as, policies, Business Rules, operational procedures, phone scripts, and staffing).
352	The Contractor shall solicit and identify all known statuses and input from the Authority regarding the CCB and provide them to all attendees and the Authority in advance of the meeting and in accordance with the Authority's change control process.

9.2. Safety

353	<p>The Contractor shall adhere to all applicable safety standards and guidelines for working on or around energized equipment, including but not limited to the following:</p> <ul style="list-style-type: none">• The Authority's safety procedures and guidelines;• local code;• State of California, code, standards, safety procedures and guidelines;• Occupational Safety and Health Administration (OSHA);• National Electrical Manufacturers Association (NEMA) and• National Electrical Code (NEC).
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10. CONTRACT DELIVERABLES REQUIREMENTS LIST

The following table identifies the Deliverables/Submittals which shall be required for this Project. This table is provided for convenience only; it is the Contractor's responsibility to meet all Requirements.

CDRL ID	CDRL Name
1.	Project Management Plan (including Baseline Implementation Schedule)
2.	Quality Plan
3.	Software Development Plan
4.	Requirements Traceability Matrix
5.	System Detailed Design Documents
6.	Implementation Plan and Related Documentation
7.	Disaster Recovery Plan
8.	Business Continuity Plan
9.	BOS Installation Plan
10.	CSC Operations and Facility Mobilization Plan
11.	End of Agreement Transition Plan
12.	Operations Plan
13.	Standard Operating Procedures (including BOS, CSC Operations and TOC procedures)
14.	Staffing and Human Resources Management Plan
15.	Reporting and Reconciliation Plan
16.	Training Plan
17.	Maintenance Plans (including System Maintenance Plan and Software Maintenance Plan)
18.	Third-Party Documentation
19.	Manuals
20.	As-Built Documentation
21.	Master Test Plan
22.	Unit Test Plan
23.	System Integration Test Plan
24.	User Acceptance Test Plan
25.	Full Software Integration Testing Documentation (includes Approval of all associated updated documents: SDDD, Requirements Traceability Matrix and Business Rules documents)
26.	Onsite Installation and Commissioning Test Plan

CDRL ID	CDRL Name
27.	Operational and Acceptance Test Plan
28.	Training Materials and Manuals

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Exhibit B

**Volume II: BOS Technology and
Functionality**

Draft
4/23/2020

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1. STATEMENT OF WORK AND REQUIREMENTS

The following subsections describe the Statement of Work and the Requirements for the Back Office System (BOS). 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 required database fields. The intent of these “including but not limited to” lists is to indicate to the proposer the intent and scope of the Requirement. During design, the naming and number of items and fields will vary; however, all items and fields shall be addresses by the BOS unless the Contractor is formally relieved of the Requirement by the Authority.

1.1. Global System Requirements

The global System Requirements define the overarching Requirements for the Hardware, Software and system comprising the production and non-production environments of the BOS.

The Contractor is encouraged to provide innovative solutions that simplify maintenance, security and the implementation of Upgrades and Enhancements. The Contractor is permitted to use cloud-based and/or premise-based solutions. During the Operations and Maintenance Phase, the entire technical solution and all Third-Party Service Providers and Business Partners must reside and perform the services within the continental United States.

The Contractor will be responsible for acquiring and maintaining the applicable Payment Card Industry (PCI) Standards Security Council Level based on the quantity and value of credit card transactions processed. The global System Requirements include Requirements for securing PII in accordance with California statutes, the Authority’s privacy policy and National Institute of Standards and Technology (NIST) best practices for general information security.

Connecting the BOS to the Electronic Toll and Traffic Management (ETTM) System, Interoperable Agencies inside and outside California and to Third-Party Service Providers and Business Partners requires a wide variety of external Interfaces. Providing for these Interfaces will require the Contractor to use existing Interface Control Documents (ICD) when applicable and develop new/more modern Interfaces at the Authority’s direction.

Although the initial implementation of the BOS will directly support OCTA’s I-405 Toll Facility, the BOS design, data schema, financial accounting and reporting approach shall support the future, potential direct support of additional OCTA and non-OCTA Toll Facilities. All functionality provided shall be easily configured to support these potential additional Toll Facilities.

A BOS-provided Performance Management and Monitoring System (PMMS) shall monitor the performance of the BOS and provide incident and work order management capabilities and data points for measuring the Contractor’s Operations and Maintenance Phase performance as further detailed in the Maintenance and Software Support Services section of these Requirements.

1.1.1. Environments

The BOS shall include multiple environments as required to complete the design, development, integration, testing, delivery and Acceptance of the BOS and properly operate during the Operations and Maintenance Phase. It is the Contractor’s responsibility to provide additional Authority-Approved environments should the ones listed herein be insufficient for the Contractor to deliver the appropriate solution.

1	The operating environment of the BOS shall include, but not be limited to:
	<ul style="list-style-type: none"> the primary BOS;
	<ul style="list-style-type: none"> a secondary instance of the BOS to be used for Disaster Recovery (DR) and to support Business Continuity;
	<ul style="list-style-type: none"> telephony system;
	<ul style="list-style-type: none"> the Interactive Voice Response (IVR);
	<ul style="list-style-type: none"> Automatic Call Distribution (ACD);
	<ul style="list-style-type: none"> systems for all servicing all channels of customer communication;
	<ul style="list-style-type: none"> Desktop Environments installed at the I-405 CSC and WIC facility;
	<ul style="list-style-type: none"> all necessary and required office equipment (for example, printers, copiers and postage machines);
	<ul style="list-style-type: none"> Desktop Environments and phone systems for two (2) permanent Authority offices and desktop computer environments and phone systems for an additional three (3) Authority offices/cubicles during mobilization of the facility and during Operational and Acceptance Testing;
	<ul style="list-style-type: none"> Desktop Environments for three (3) Authority offices/cubicles during mobilization of the facility and during Operational and Acceptance Testing;
	<ul style="list-style-type: none"> initial setup, security, and Interface of the I-405 BOS application on desktop computers and peripherals at the OCTA Store WIC (desktop computers and peripherals at the OCTA Store WIC are provided by the Authority);
	<ul style="list-style-type: none"> all network and communications elements;
	<ul style="list-style-type: none"> all required Interfaces and
	<ul style="list-style-type: none"> a data warehouse (Phase II and optional).
2	The primary BOS server environment shall be located at one or a combination of the following locations:
	<ul style="list-style-type: none"> hosted at a Tier 3 data center facility and
	<ul style="list-style-type: none"> hosted on a well-established cloud service provider.
3	The primary BOS server environment shall have a dedicated infrastructure such that while hosted at a Tier 3 data center facility or by a well-established cloud service provider, the Authority's dedicated BOS application shall run on dedicated virtual machines and/or containers such that only upgrades to the data center/cloud infrastructure and the Authority's BOS application would potentially affect the uptime of the BOS and there is no possibility of functional or infrastructure upgrades required to service other toll customer's applications would cause any downtime or affect the BOS in any way.

4	The Contractor shall ensure the BOS is fully operational in accordance with the Performance Measures described in these Requirements, for the Implementation and Operations and Maintenance Phases.
5	<p>The Contractor shall provide all computing environments required to achieve Commencement of Ramp-up/Customer Services, including but not limited to:</p> <ul style="list-style-type: none"> • a production environment located within the continental United States and • a DR environment at a secondary location within the continental United States in a different time zone, or cloud-based equivalent;
6	<p>The Contractor shall provide all computing environments required to sustain the day-to-day operations of the BOS by the Go-Live date, including but not limited to:</p> <ul style="list-style-type: none"> • a production environment located within the continental United States; • a DR environment at a secondary location within the continental United States in a different time zone, or cloud-based equivalent; • a training environment located at the CSC location; • a test environment and • a development environment.
7	During both the Implementation Phase and the Operations and Maintenance Phase, the Contractor shall not allow any Authority data or customer PII outside of the U.S. Individuals and entities outside of the U.S. shall only have access to the development environment and shall not have access to customer PII.
8	The Authority shall have logon access to all BOS environments.
9	The Contractor shall keep all BOS environments current with all major releases of operating systems, databases, Software and firmware. Releases shall not be more than one (1) release behind the manufacturer's latest major release unless Approved by the Authority. The Contractor shall also make the necessary Software changes required to ensure compatibility with the evolving IT environment.
10	With the exception of the development and test environments, which may change as part of testing and development cycles, the Contractor shall keep operating systems, databases, Software and firmware consistent across all environments, including, but not limited to configuration and patch level.
11	The test environment shall be sufficiently sized to successfully test Software changes and their effect on the production environment, including load and stress testing.

1.1.1.1. Operating and Computing Environments – Production

The Contractor is expected to provide a BOS solution that is a dedicated, hosted and/or cloud-based system and as such should provide for the following operating and computing environment Requirements for production.

12	The BOS production environment shall use new Hardware and Equipment for any equipment installed on-premise at Authority's facilities or at a hosting facility.
13	The BOS production environment shall be a high availability fault-tolerant design configuration of servers, storage, databases and backup systems and connected using high-speed inter-system storage and networking fabric, including any ancillary equipment necessary to provide a complete production system which meets the Requirements.
14	In the event of a complete failure of one or more of the components or sub-systems in the BOS production environment, affected components or sub-systems shall failover to the secondary BOS at the DR site. Performance and availability Requirements for the individual components and sub-systems of the BOS shall not be affected.
15	The design and Implementation of the BOS production environment shall ensure no single-point-of-failure exists within the configuration and the BOS shall continue to operate without data loss in the event any single component of the configuration fails.
16	The operating system used for all servers shall be a multi-user and multi-tasking operating system from a manufacturer that is widely recognized and used in the United States for complex, high-volume database operations.
17	<p>The operating system shall be compatible with all Hardware, Software and other BOS components for the duration of the Operations and Maintenance Phase, including but not limited to:</p> <ul style="list-style-type: none"> the Relational Database Management System (RDBMS); the Contractor's application Software; the Contractor's proposed network and communications topology and all Desktop Environments and peripherals defined in these Requirements.
18	The operating system shall fully utilize the high availability BOS server architecture.
19	The operating system shall be the latest stable version at the time of implementation (unless otherwise Approved by the Authority), field-proven and have a clearly documented Upgrade path and be supported by the manufacturer.
20	The Contractor shall provide a highly reliable and secure RDBMS for the storage of images, user accounts, transaction/trip data, Violation data and all other data.
21	The RDBMS shall be the latest version at the time of Implementation (unless otherwise Approved by the Authority and field-proven to operate in a complex, high-volume transaction environment.
22	The RDBMS shall be certified with the operating system, appropriate application Software and shall fully utilize the high availability BOS server architecture.
23	The RDBMS shall support Upgrades to the operating system, applications, memory, processors and other components.

24	The RDBMS shall have a clearly documented Upgrade path and be supported by the manufacturer.
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1.1.1.2. Operating and Computing Environments – Disaster Recovery (DR)

25	For DR purposes the Contractor shall provide a DR computing environment of equivalent size and capabilities to the primary BOS, at a secondary location within the continental United States and in a different time zone from the primary BOS.
26	The DR environment configuration shall continuously mimic the BOS production environment in terms of configuration and data and shall be capable of performing all functions of the production environment, at the same performance and availability levels described in these Requirements for the primary BOS.
27	When put into production, the bandwidth provided to the DR site shall provide for the same performance and reduction of latency as the production BOS for both customers and CSC Operations staff.
28	The DR environment at the DR site shall be capable of being brought on-line and made fully operational in accordance with the Performance Measures.
29	In the event of a catastrophic failure of the primary BOS, the secondary BOS at the DR site shall be capable of sustaining BOS operations indefinitely, or until such time as the primary BOS can be brought back on-line or a new primary site is identified and made fully operational.
30	The Contractor shall provide validation that the DR procedures and environment is capable of providing Business Continuity in the event of a catastrophic failure of the primary BOS. This testing shall be coordinated with the Authority and all the results shall be immediately provided to the Authority.
31	The DR server environment shall be located at one or a combination of the following locations:
	<ul style="list-style-type: none"> • a Tier 2 data center facility and
	<ul style="list-style-type: none"> • a well-established cloud service provider.

1.1.1.3. Operating and Computing Environments – Data Warehouse (Phase II and Optional)

The data warehouse provides for the running of data analytics (Business Intelligence) reporting. It also allows the Authority to either directly or upon request to the Contractor, query data and run reports without having to compete for production reporting resources. The data warehouse environment stores all required data (to be defined during the Implementation Phase) from the BOS.

32	The Contractor shall provide, as part of the production environment, a separate data warehouse environment for business intelligence and analytics reporting.
33	The data warehouse shall be dedicated, and the required general reporting shall not depend on the data warehouse in any way.

34	The Contractor shall be responsible for the design and testing of the extract, transform and load (ETL) process from the BOS during the Implementation Phase and the transfer of data after Go-Live throughout the Operations and Maintenance Phase.
35	The Contractor shall provide validation that all data transferred to the data warehouse is complete and accurate.
36	The data warehouse environment shall be updated from production in near-real time.
37	The data warehouse environment shall be capable of being updated via an ETL process from the production System via a one-way replication.
38	Because the data warehouse is Phase II functionality, if the option is executed, at start-up of the data warehouse the Contractor shall extract all applicable historical data from the BOS. The design of the data warehouse database schema, ETL process and the data analytics application shall be part of a post Go-Live, Phase II task.

1.1.1.4. Operating and Computing Environments – Training

39	The Contractor shall provide a non-production training environment, independent from the production and DR environments, to support the initial and ongoing training of the CSC Operations and Authority's personnel.
40	The training workstation environments shall be located at the CSC site unless the Contractor can submit and gain Authority's Approval of an alternative location.
41	The training desktop environment shall replicate the production Desktop Environments, including all peripherals as dictated by the position being trained.
42	The number of training stations shall be determined by the Contractor to meet the training needs in accordance with the CSC Operations and Facility Mobilization Plan and on-going remedial and new training of personnel.
43	The Contractor shall provide the capability to restore training environment databases and to periodically refresh the training environment data from the production BOS, using data cleansing procedures Approved by the Authority.

1.1.1.5. Operating and Computing Environments – Test

44	The Contractor shall maintain a BOS test environment that matches the BOS production environment configuration for the purpose of testing and verifying software Enhancements and Upgrades prior to being put into production.
45	At the Authority's request, the Contractor shall provide access to the test environment for independent testing and verification to software Enhancements and Upgrades prior to being put into production.
46	To the extent possible, the test environment shall interface directly to Third-Party Service Providers and Business Partners and Interoperable Agency test and/or production systems. For example, the DMV and ROV Interfaces.

1.1.1.6. Email, Chat, Fax and Text Messaging

47	The Contractor shall provide the capability for manual, scheduled and system triggered outbound/inbound email (including email attachments) and texting that meets the outbound/inbound correspondence Requirements.
48	The Contractor shall provide the capability for outbound/inbound fax that meets the outbound/inbound correspondence Requirements.
49	The Contractor shall provide the capability for chat sessions that meets the Requirements.
50	The Contractor shall provide the capability for multiple outbound domain name emails to avoid spam blocks or may provide an alternative solution.
51	The Contractor shall provide the capability for Authorized Users to view system-generated status information for electronic messages (such as, email, texting or fax) that are sent from within the BOS application. For example, an Authorized User (e.g., customer service representative) verifies that email messages have been successfully sent from the BOS.

1.1.1.7. Hardware, Software and Other Equipment

52	The Contractor shall provide completely new Desktop Environments for all CSC Operations personnel.
53	The Contractor shall integrate with the BOS all Authority provided or procured 6c transponder readers/programmers for use in the CSC.
54	The Contractor, with the Approval and assistance of the Authority, shall procure any additional 6c 1` readers/programmers required for the CSC on a cost pass-through basis.
55	<p>All Hardware and Software shall be new, commercially available products currently in production, of the latest design/version at the time of purchase (unless otherwise Approved by the Authority) and field-proven in high-volume revenue operations, including but not limited to:</p> <ul style="list-style-type: none"> • Hardware; • Software; • firmware and • other supplies, equipment or components.
56	All Hardware and Software shall be obtainable from multiple sources readily available to the Authority, unless otherwise Approved by the Authority. An exception to this may be the Contractor's custom-developed Software.
57	The Contractor shall provide a dated invoice for all materials procured under this Agreement. Shipping bills shall be retained and copies furnished to the Authority along with the invoice on which they appear.

58	All commercial Software provided as part of the BOS shall be enterprise class. Enterprise class applications are designed to be robust and scalable across a large organization and are customizable to meet the specific needs of the BOS. Note: Do not construe this to require enterprise level software licenses. It is the Contractor's responsibility to provide the proper level of software licensing.
59	The solution furnished and installed shall be appropriately sized for capacity, as required to support growth in traffic volumes. It also shall be scalable, allowing for additional transactions/trips, images and Toll Facilities to be added for all BOS functions while continuing to meet the Performance Measures.
60	The Contractor shall use field-proven Hardware, Software and equipment configurations that support future Upgrades to processors, memory, storage, operating system, database and other system components.
61	Licenses and Software media (or online access for downloading media) shall be provided to the Authority for all Hardware, third-party Software and firmware procured, furnished and installed as part of the BOS.
62	The Contractor shall retain authorized copies (backups) for all Software media as required for use in periodic BOS maintenance, Upgrades or system restores for a minimum of one year.
63	All Hardware and equipment provided to support BOS and CSC Operations shall be networked and fully integrated with the functional BOS (including PMMS) and the Desktop Environments.
64	The standard Point of Sale devices shall support Europay, MasterCard and Visa (EMV) chip integrated circuit card and contactless Near Field Communication (NFC) devices. The Contractor shall ensure compliance with EMV chip guidelines for chip card transactions and International Standards Organization (ISO)/International Electrotechnical Commission (IEC) 18092 specifications for contactless NFC transactions.
65	Check scanners (for remote deposit capture) shall include, but not be limited to: <ul style="list-style-type: none"> • high accuracy Magnetic Ink Character Recognition (MICR) rate; • compliance with "The Check Clearing Act for the 21st Century" (Check 21); • check defacement features and • alphanumeric Optical Character Recognition (OCR) A & B font recognition.

1.1.1.8. Network, Communications, Telephony, Security and Surveillance

66	The Contractor shall provide all required network equipment and communications lines (including all installation and recurring costs throughout the term of the Agreement) to connect the CSC and BOS to all required users and systems with sufficient bandwidth to meet all Requirements at no additional cost to the Authority, including:
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	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for all BOS to CSC personnel communications;
	<ul style="list-style-type: none"> remote Contractor personnel;
	<ul style="list-style-type: none"> work-at-home Contractor personnel (under certain Business Continuity procedures);
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for all Contractor designated Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> all Contractor provided BOS environments;
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for customers accessing the BOS or CSC via telephony, IVR, Self-Service Website, Self-Service Mobile Application (Phase II and optional) and all other channels;
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connection to ETTM System at 4301 W. MacArthur Blvd, Santa Ana, CA 92794;
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for the OCTA Store WIC location at 600 S Main St, Orange, CA 92868 via secure public VPN (or other Authority Approved Interface). OCTA will provide all necessary equipment at the OCTA Store WIC location;
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for Authority's staff locations from various locations via secure public VPN (or other Authority Approved Interface). OCTA will provide all necessary equipment at the Authority staff locations and
	<ul style="list-style-type: none"> secure dedicated and redundant Interface connections for all Authority designated Third-Party Service Providers and Business Partners via secure public VPN (or other Authority Approved Interface). OCTA or others will provide all necessary equipment at the Third-Party Service Providers and Business Partners locations.
67	The Contractor shall provide the telephony systems for all CSC Operations personnel at the CSC and the collocated WIC. Note: The telephony system at the OCTA Store WIC at 600 S Main St, Orange, CA 92868 will continue to be provided by OCTA.
68	As part of the Implementation Phase, the Contractor shall provide and install all network equipment and communications as required to meet the Requirements.
69	The Contractor will assume maintenance, administration and Upgrade of all network equipment and communications to service the BOS and CSC throughout the Operations and Maintenance Phase.
70	The network connection to the ETTM System shall be of sufficient bandwidth to support the transfer of images, transactions/trips, Transponder Status Lists and other required files.
71	The Contractor shall increase throughput and bandwidth as needed to eliminate system latency and meet the Requirements.

72	The Contractor shall provide network monitoring Software to monitor all Contractor provided and Authority provided infrastructure, network equipment and communications related to the BOS and CSC. All network notifications and alarms shall be reported to the PMMS.
73	The Contractor shall provide the capability for time synchronization to one or more certified time server(s). The Contractor shall provide for redundant certified time sources should the primary source be unavailable.
74	The Contractor shall ensure exact synchronization with the ETTM System.
75	The Contractor shall provide secure remote access to the full capabilities of the BOS for Authority Authorized Users working remotely.
76	The Contractor shall be responsible for ensuring that all BOS networks and communications are compliant with the Security Standards.

1.1.2. BOS Functionality

The BOS functionality Requirements begin with the design of a GUI to the BOS. Through the GUI, Authorized Users (from within the CSC) and customers (accessing via the Self-Service Website, and Self-Service Mobile Application (Phase II and optional)) will access a user account and other information within the BOS. This section of the global Requirements also includes Requirements for establishing and controlling user access to the BOS, logging and security controls and maintaining efficient databases through regular purging and archiving of stale records in accordance with the Security Standards.

1.1.2.1. Graphical User Interface (GUI)

The GUI design must include accepted computer industry design standards for ease of readability, understanding and appropriate use of menu-driven operations, user customization and intuitive operation. The GUI should allow for efficient action by CSR or customer minimizing screens and clicks to modify.

77	The Contractor shall provide a secure, browser-based GUI for the BOS application, Self-Service Website, and all external Interfaces.
78	The Contractor shall provide for secure communications with the BOS application, all customer portals and all external Interfaces, such as Hypertext Transfer Protocol Secure (HTTPS) or similar.
79	The GUI shall adhere to accepted development standards and specifications, including but not limited to World Wide Web Consortium (W3C) and HyperText Markup Language (HTML) Version 5 or current standard.
80	The Contractor shall follow Payment Card Industry Data Security Standard (PCI DSS) and standard security practices in the design of the GUI for the BOS application, all customer portals and all external Interfaces.
81	The GUI design and development shall incorporate human factors and usability engineering and be optimized for speed, as well as provide the following controls, including but not limited to:

	<ul style="list-style-type: none"> • menus (such as pull down, popup, cascading, leveling, etc.);
	<ul style="list-style-type: none"> • allowing for multiple windows within the application, such as to navigate back without having to re-enter a user account;
	<ul style="list-style-type: none"> • informational messages;
	<ul style="list-style-type: none"> • positive feedback;
	<ul style="list-style-type: none"> • exception handling and error dialogs, including logging the error (in the PMMS);
	<ul style="list-style-type: none"> • control icons, links and action buttons;
	<ul style="list-style-type: none"> • data entry fields, combo boxes, check boxes;
	<ul style="list-style-type: none"> • display (read-only) fields and
	<ul style="list-style-type: none"> • general and context-specific help menus.
82	Data entry screens shall have Configurable mandatory fields that require data entry prior to continuing through the process.
83	The Contractor shall provide field-level validation and format verification upon existing data fields applicable to pre-defined formats or standards, including but not limited to:
	<ul style="list-style-type: none"> • alpha-numeric;
	<ul style="list-style-type: none"> • date;
	<ul style="list-style-type: none"> • time;
	<ul style="list-style-type: none"> • special characters;
	<ul style="list-style-type: none"> • length;
	<ul style="list-style-type: none"> • license plate number (based on individual issuing Jurisdiction rules) fields;
	<ul style="list-style-type: none"> • transponder numbers;
	<ul style="list-style-type: none"> • telephone number;
	<ul style="list-style-type: none"> • email address;
	<ul style="list-style-type: none"> • ZIP or postal codes and
	<ul style="list-style-type: none"> • check-digit, checksum, Modulus-10 or other verification algorithms for fields such as Credit Card number.
84	The Contractor shall provide field-level “tooltips” or other interactive help, Configurable by the system administrator, that provide specific guidance on any field presented, including but not limited to:
	<ul style="list-style-type: none"> • alpha-numeric fields;

	<ul style="list-style-type: none"> • date fields;
	<ul style="list-style-type: none"> • time fields;
	<ul style="list-style-type: none"> • special characters;
	<ul style="list-style-type: none"> • username and password;
	<ul style="list-style-type: none"> • length restrictions;
	<ul style="list-style-type: none"> • license plate number (based on individual issuing Jurisdiction rules) fields;
	<ul style="list-style-type: none"> • transponder fields;
	<ul style="list-style-type: none"> • telephone number fields;
	<ul style="list-style-type: none"> • email address fields;
	<ul style="list-style-type: none"> • ZIP or postal code fields and
	<ul style="list-style-type: none"> • Credit Card number fields.
85	<p>The Contractor shall provide the capability for Authorized Users to maintain drop-down lists, including but not limited to:</p> <ul style="list-style-type: none"> • add items; • deactivate items; • set effective activate and deactivate times; • modify items; • toggle item visibility on/off; • set the display order; • change the display order; • set the default value and • change the default value.

1.1.2.2. BOS Application Requirements

86	<p>The Contractor shall provide navigation optimized for speed and with identical screen presentation and user experience, regardless of the browser used. The BOS application shall detect and advise if the browser being used is out-of-date or not supported, as well as instruct where updates can be obtained.</p>
87	<p>Help menu/dialogue box shall be provided for each screen, each editable field and each selectable option within each screen.</p>

88	The Contractor shall provide workflow and application help menus that integrate seamlessly into the user interface.
89	The Contractor shall provide help menus that provide clear descriptions and walk-through procedures for all standard tasks.

1.1.2.3. User Accounts, User-Roles, User-Role Management and Controls

User account management and role management is an important component to the overall security of the solution. Authorized Users are Approved users that have role-based credentials to access the BOS as an employee of the Contractor, employee of the Authority, Third Party Service Provider, or contractor of the Authority.

90	Authorized Users shall access the BOS using an authenticated, role-based login and be uniquely identified and authenticated using a strong password policy.
91	The Contractor shall provide the capability for only privileged accounts to use tools with administrative capabilities conforming to the concept of least privilege.
92	Allow for full integration with Microsoft Active Directory (AD) or similar access system Approved by the Authority so users are not required to enter separate passwords for system access (the BOS shall prompt users for their credentials and not allow pass-through authentication), and that all rules for password security (for example, characters or rotations) are enforced and passed between the network and the application.
93	The Contractor shall provide the capability to create (Configurable) BOS user accounts.
94	The Contractor shall provide the capability to create a new user account having the same role/rights as an existing user account.
95	The Contractor shall provide the capability to allow first name, middle name and/or last name to be changed without having to create a new user account, such as to correct an error or make a change because of marriage or divorce.
96	The Contractor shall provide the capability to search for Authorized Users using Configurable criteria.
97	The Contractor shall provide the capability to track user accounts created dates and disabled dates information, since user accounts may be enabled and disabled repeatedly over a period of time (because of leaves of absence, etc.).
98	The Contractor shall provide the capability to search and view all information about a user account on a particular date and time.
99	The Contractor shall provide the capability to control all access rights within the BOS through the assignment of user-roles.
100	The BOS shall prevent the direct assignment of rights to an Authorized User, and all rights must flow from a user-role.
101	The Contractor shall provide the following user-role capabilities, including but not be limited to:

	<ul style="list-style-type: none"> allow Authorized Users to belong to multiple user-roles;
	<ul style="list-style-type: none"> allow the deactivation of a user-role, provided no active Authorized Users are assigned to that role;
	<ul style="list-style-type: none"> ensure modifications to roles are immediately propagated through the BOS and to all Authorized Users currently assigned to the role;
	<ul style="list-style-type: none"> prevent BOS access to users who are not assigned to a user-role and
	<ul style="list-style-type: none"> provide a built-in “read-only” capability that can be added to any user-role, allowing user accounts assigned to that role to view information on the screen and print reports (but not make changes).
102	The Contractor shall provide the capability for an Authorized User to view the summary of permissions of a user created with multiple user-roles.
103	The Contractor shall provide the capability for Authorized Users to manage user-roles, including but not limited to:
	<ul style="list-style-type: none"> create new user-roles;
	<ul style="list-style-type: none"> change access rights;
	<ul style="list-style-type: none"> assign and un-assign user-roles to user accounts;
	<ul style="list-style-type: none"> assign and un-assign user accounts to user-roles;
	<ul style="list-style-type: none"> adjust user-roles and
	<ul style="list-style-type: none"> deactivate user-roles.
104	The Contractor shall provide the capability for Authorized Users to manage multiple levels of access control based on user-roles, including but not limited to:
	<ul style="list-style-type: none"> broad functional level, for example, user-role X is denied access to the user account management functionality;
	<ul style="list-style-type: none"> detailed functional level, for example, user-role Y is allowed access to the user account management functionality but denied access to close user accounts function and
	<ul style="list-style-type: none"> field level, for example, user-role Z is allowed access to the user account management functionality but denied access to the tax-exempt checkbox.
105	The Contractor shall provide the capability for Authorized Users to deny/allow access or allow read-only access, based on user-roles, including but not be limited to:
	<ul style="list-style-type: none"> specific menus;
	<ul style="list-style-type: none"> specific items on a drop-down list;
	<ul style="list-style-type: none"> specific individual screens;

	<ul style="list-style-type: none"> • specific functions on a screen;
	<ul style="list-style-type: none"> • specific fields within a specific screen;
	<ul style="list-style-type: none"> • specific types of transactions/trips;
	<ul style="list-style-type: none"> • specific processes;
	<ul style="list-style-type: none"> • specific reports;
	<ul style="list-style-type: none"> • specific activities based on account status;
	<ul style="list-style-type: none"> • specific search capabilities;
	<ul style="list-style-type: none"> • specific transaction/trip approval privileges;
	<ul style="list-style-type: none"> • specific workstation location access;
	<ul style="list-style-type: none"> • specific workstation time restrictions and
	<ul style="list-style-type: none"> • specific time restrictions.
106	The Contractor shall provide the capability to configure Flags as part of a user role definition, so they can be viewed based on user-roles.
107	The Contractor shall provide the capability to send Alerts to the PMMS for logging and notification based on the assignment/removal of a specific user-role (Configurable as new user-roles are created).
108	The Contractor shall provide the capability to search for all Authorized Users with a specific role and all user accounts with a specific access right.
109	The Contractor shall provide the capability to search and report on user-roles for a particular date, distinguishing between an active user account (able to access information according to its roles) an inactive user account (temporarily unable to access information because of a locked password or expired from lack of use) and a disabled user account (a user account no longer able to access information because of the intervention of an Authorized User).
110	The BOS shall keep a full history of all user-role details with effective dates so the exact rights for a particular user-role can be viewed by Authorized Users at any point in time.

1.1.2.4. Logging Mechanisms

These mechanisms provide chronological recording of system events and user account activities. They also document the sequence of activities that have been affected at any time during a specific operation, procedure or event.

111	The Contractor shall provide comprehensive, system-wide logging capabilities ensuring every change to a BOS record of any type is logged with a date/time stamp, including the Authorized User (and IP address) that made the change.
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112	The Contractor shall ensure that system clocks are synchronized. For example, Desktop Environments, equipment, servers, physical security systems and CSC Surveillance CCTV systems.
113	The Contractor shall provide the capability to log all changes to user accounts.
114	The Contractor shall provide the capability to log all changes to the Processing Exception List.
115	<p>The Contractor shall provide BOS reports, including but not limited to:</p> <ul style="list-style-type: none"> • reports of logged activity by activity type and • reports of logged activity by user accounts.
116	The Contractor shall create a log when a user-role is assigned, changed or removed from a user account.
117	The Contractor shall provide screens so Authorized Users can view all log files.
118	The Contractor shall provide the capability to log and track all user activities and user accounts viewed by specific user account with date, time stamp, and workstation location.
119	The Contractor shall provide Configurable Alerts to the PMMS for all functions of the BOS which are logged.
120	The Contractor shall provide logging that includes actions taken within a user account with date and time stamp.
121	The Contractor shall provide logging of all changes (view, add, delete, modify) to Credit Card information.
122	<p>The Contractor shall provide logging of all user login attempts, including but not limited to:</p> <ul style="list-style-type: none"> • username; • originating Internet Protocol (IP) address; • date; • time and • success/failure.
123	<p>The Contractor shall provide logging of all customer login attempts, including but not limited to:</p> <ul style="list-style-type: none"> • Uniform Resource Locator (URL); • user account; • browser/platform including version number; • originating IP address;

	<ul style="list-style-type: none"> • date;
	<ul style="list-style-type: none"> • time and
	<ul style="list-style-type: none"> • success/failure.
124	The Contractor shall provide audit logging capabilities that provides the ability for view access by CSR and/or by account to have the review of users that have accessed the account or Case even if no changes have been logged.
125	The Contractor shall create a log of all changes to system configurations or settings and record the user name, date, time and IP address from which the change was made.
126	The Contractor shall be in compliance with all PCI DSS logging requirements while preventing any logging of Credit Card numbers or card verification value data, including debugging and error logs.
127	The Contractor shall be in compliance with all PII logging requirements while preventing any logging of PII data, including in debugging and error logs.
128	The Contractor shall provide the capability to generate an Alert to the PMMS when debugging logs are turned on within the production environment.
129	The Contractor shall prevent tampering with log file data.
130	The Contractor shall provide the capability to log and track changes to applications, databases and operating systems.

1.1.2.5. BOS Security Standards, PCI-DSS, PII and Best Practices

The Contractor shall provide security and access controls in accordance with the Security Standards. These Security Standards will evolve as standards, best practices and California statutes evolve over the term of the Agreement.

131	The Contractor's approach to BOS and user security shall continually provide adherence to the latest specifications, publications, policies and standards, including but not be limited to:
	<ul style="list-style-type: none"> • compliance with PCI DSS;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with the Authority's privacy policy;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with Section 31490 of the Streets and Highways Code and other applicable California statutes;
	<ul style="list-style-type: none"> • protecting the confidentiality of PII in accordance with the recommendations in publication 800-122 from the National Institute of Standards and Technology (NIST) or subsequent versions;
	<ul style="list-style-type: none"> • encryption of data in accordance with NIST SP 800-111 Guide to Storage Encryption Technologies for End User Devices;

	<ul style="list-style-type: none"> protecting the confidentiality of PII in accordance with the California Civil Code Section 1747.08.;
	<ul style="list-style-type: none"> account for information security management risk as described by NIST Cybersecurity Framework special publication 800-39;
	<ul style="list-style-type: none"> conformance to applicable best practices for information security management as described by the ISO/IEC 27000 standards;
	<ul style="list-style-type: none"> the security Requirements and
	<ul style="list-style-type: none"> all California and out-of-state DMV security requirements and standards.
132	The Contractor shall establish and maintain a formal, documented, mandated, BOS and CSC Operations information security policy that shall be communicated to all Contractor and Subcontractors personnel in a relevant, accessible, and understandable form and will be regularly reviewed and evaluated to ensure its operational effectiveness, compliance with all Security Standards, applicable laws and regulations, and to address new threats and risks.
133	The information security policy shall address all removable media except in the context of Contractor's routine back-ups or as otherwise specifically Approved by the Authority, Contractor shall institute strict physical and logical security controls to prevent transfer of BOS data via removable media.
134	The Contractor shall provide strong end-to-end encryption for all sensitive information, including PCI and PII) stored within databases (at rest) or being transmitted (in-motion).
135	The Contractor shall use strong encryption methods such as AES FIPS-179 (128 bits and higher) or RSA (2048 bits and higher), or an equivalent if Approved by the Authority.
136	The Contractor shall provide encryption keys that are considered sensitive information and stored on appropriately secured servers.
137	The Contractor shall prevent any unauthorized user, system or database administrator from viewing encrypted information in unencrypted form, while providing the capability for Authorized Users to view encrypted information in unencrypted form to perform tasks based on a defined role.
138	The Contractor shall ensure that no cardholder data, such as Credit Card numbers or card verification value data, is in any BOS environments.
139	The Contractor shall ensure that no PII data is in the BOS environments other than production, DR and test.
140	<p>The Contractor shall provide comprehensive user credential controls that are compliant with PCI standards, including but not limited to:</p> <ul style="list-style-type: none"> prevent the creation of 'generic' user accounts – all user accounts shall be associated to a specific person. For example, use the unique employee ID as a required field for each user account. Duplicate IDs would be rejected and

	<ul style="list-style-type: none"> prevent a user (role-based) from logging in at two different machines at the same time, while allowing a single user on a single machine to have multiple sessions open at the same time.
141	<p>The Contractor shall provide the capability to configure different user credential controls for different types of users, including but not limited to:</p> <ul style="list-style-type: none"> Authorized Users who will access the BOS; Third-Party Service Providers and Business Partners that access the BOS via external Interfaces and customers who will access the BOS via the Self-Service Website, Self-Service Mobile Application (Phase II and optional) and the IVR.
142	All Hardware shall be integrated with the PMMS and configured to provide PMMS alerts in relations to out-of-date security software and patch versions.
143	All Hardware shall be integrated with the PMMS and configured to provide PMMS alerts in relations to all attempted intrusions, virus attacks, ransomware attacks, spamming, denial of service and attempted/successful unauthorized access.
144	For any Hardware removed from the BOS, the Contractor shall provide a notarized statement, detailing the removal or destruction method used, the data sets involved, the date of destruction, and the company or individual who performed the destruction. The statement shall be sent to the Authority within fifteen (15) Calendar Days of removal of the Hardware. The destruction or erasure of data or information pursuant to this section shall be in compliance with industry Best Practices (e.g., NIST SP 800-88, Guidelines for Media Sanitization)
145	The Contractor shall provide a report of all security incidents. The Authority or its third-party designee may, but is not obligated to, perform audits, security tests and intrusion tests of BOS environments that may also include, but are not limited to, interviews of relevant personnel, review of documentation, and/or technical inspection of systems.
146	The Contractor shall provide for Authority's review any original security reports related to security assessments that the Contractor has undertaken to assess BOS and shall notify the Authority of all security assessments.

1.1.2.6. Archival and Purge Control Mechanisms

The Authority is public and, therefore, are subject to the law governing the retention and disposition of information considered as public record. The Requirements for archiving and purging include Requirements for automating these activities in a way that maintains compliance with the Contractor retention schedule that is provided as part of the Contractor's Maintenance documentation, while providing the Authority a method to Approve the disposition of records before they are deleted.

147	The Contractors archival and purge processes shall be in compliance with the data retention Requirements set forth in the Security Standards and Volume I, Section 4.2.17 Records.
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148	The Contractor shall provide the capability for fully automated and Configurable storage of historical data (archival) and the permanent deletion of inactive or obsolete data (purging).
149	The Contractor shall provide the capability to store 100 percent of the BOS electronic information in accordance with the data retention Requirements set forth in the Security Standards and Volume I, Section 4.2.17 Records.
150	The Contractor shall provide the capability to store 100 percent of the BOS electronic historical information indefinitely if they have enduring significance to the Authority's activity (i.e., permanent, evidentiary, and/or historical value) in accordance with the retention schedule. All information, other than that prohibited within the Requirements, will be retained for the duration of the Agreement and archived or moved to long-term storage as deemed appropriate during the Implementation Phase to meet all customer and Authority needs for reporting and data access
151	Archival and purge routines shall be Configurable for each impacted data element, including but not limited to:
	<ul style="list-style-type: none"> • transactional data;
	<ul style="list-style-type: none"> • all formats of customer PII data;
	<ul style="list-style-type: none"> • Images (Violations-related and I-Toll-related);
	<ul style="list-style-type: none"> • documents;
	<ul style="list-style-type: none"> • Notifications;
	<ul style="list-style-type: none"> • BOS logs and
	<ul style="list-style-type: none"> • third-party provided files.
152	The Contractor shall provide the capability to archive data on a monthly interval.
153	The Contractor shall provide the capability to purge archived data on a periodic basis.
154	Authorized Users shall have the capability to request retrieval of archived data through the Contractor's ticketing system included in the PMMS.
155	All archived data shall be stored on permanent, long-term storage media and shall be maintained at a secure Authority Approved third-party commercial data storage facility.
156	Servers shall retain transaction/trip and summarized data, all images and BOS logs online for a specified period of time and then archive that data.
157	Data shall be purged in accordance with the data retention schedule.
158	The Contractor shall provide the capability to notify the BOS maintenance personnel via the PMMS a Configurable number of days in advance and require Authorized User approval for when archival and purging jobs are to be executed, including but not limited to data elements impacted, date range applied and data size impact.

159	After successful archival of data and confirmation via the PMMS, the deletion of online data shall be automatic, without user intervention and shall generate a message to be transmitted according to the PMMS rules. Absolutely no transactions/trips shall be deleted unless confirmed to be successfully archived.
160	The BOS servers shall be sized to accommodate for the restoration of selected archived data (one -year minimum).
161	Authorized Users shall be able to generate queries from the restored data.

1.1.3. Interfaces

The Contractor is responsible for working with the Authority, Interoperable Agencies/California Toll Operators Committee (CTOC) and Third-party Service Providers and Business Partners in designing, developing, documenting, testing and implementing all required Interfaces and portals.

1.1.3.1. General Requirements for External Interfaces

Electronic Interfaces are required to provide BOS connectivity. The technical specifications for these Interfaces are documented in ICDs that have either already been developed by the Authority or shall be developed by the Contractor. The ICDs include Requirements for data format and transmission, criteria for acknowledgement and validation of transmitted data and procedures for recording and reconciliation as appropriate for each Interface.

162	The Contractor shall develop new or comply with existing electronic Interfaces at the direction of the Authority.
163	The Contractor shall provide for guaranteed transmission of data for all Interfaces and portals.
164	The Contractor shall provide for 100 percent reconciliation of the transmitted and received data and files.
165	The Contractor shall provide the capability for Authorized Users to access and view the contents of files, including compressed or encrypted files, which are received by the BOS and transmitted by the BOS in a readable format. Authorized Users shall have the capability to save the contents of such files.
166	The Contractor shall provide the capability for sending real-time Alerts to the PMMS for Interface and data transmission failures, including but not limited to:
	<ul style="list-style-type: none"> • real-time dashboard for managing and monitoring Interfaces;
	<ul style="list-style-type: none"> • workflow user Interface for managing and monitoring steps within each Interface;
	<ul style="list-style-type: none"> • status and history of executions;
	<ul style="list-style-type: none"> • comprehensive scheduling of file transmissions;
	<ul style="list-style-type: none"> • tools for viewing data and/or contents of files received via Interfaces and portals (compressed or encrypted);

	<ul style="list-style-type: none"> comprehensive reporting for transmitted and received data and files;
	<ul style="list-style-type: none"> tight integration with the PMMS and notification of failed transmissions and
	<ul style="list-style-type: none"> capability to manually execute a failed transmission.
167	When using File Transmission Protocol (FTP), the Contractor shall utilize Secure File Transmission Protocols (SFTP) for the transfer of data and/or files via Interfaces and portals.
168	The Contractor shall provide the capability to transmit and receive multiple files during each scheduled batch.
169	The Contractor shall provide the capability to transmit and receive multiple full and incremental files in a day.
170	The Contractor shall utilize file naming conventions that prevent the over-write of data and/or files. For example, include the date and time of transmission.
171	The Contractor shall provide file handling and processing methods that provide for a complete log of the data and/or file transfer process.
172	<p>The Contractor shall validate records and identify errors in the received data and/or files, including but not limited to:</p> <ul style="list-style-type: none"> mandatory fields; data formats; data validity (for example, user account number not found in the BOS); duplicate records; unexpected response; checksum/record count verification and incorrect status.
173	The Contractor shall provide the capability to correct and re-transmit data and/or files.
174	The Contractor shall provide the capability to process re-transmitted data and/or files.
175	The Contractor shall provide the capability to transmit the error details to the transmitting entity, as well as record it in the PMMS.
176	The Contractor shall provide the ability to identify missing records/transactions/images and request the transmission of such missing records/transactions/images.
177	The Contractor shall reconcile the transmitted records to the records received and accepted by the receiving entity.
178	The Contractor shall provide the means to identify Interface issues by validating the file transmission process, including but not limited to:

	<ul style="list-style-type: none"> creation and transmission of data and/or a file at the scheduled time, even if there are no records to transmit;
	<ul style="list-style-type: none"> determination if the data and/or a file was transmitted or received at the scheduled time;
	<ul style="list-style-type: none"> creation of Alerts to the PMMS if data and/or a file was not created or received at the scheduled time;
	<ul style="list-style-type: none"> creation of Alerts to the PMMS if received data and/or a file was not acknowledged;
	<ul style="list-style-type: none"> creation of Alerts to the PMMS if records in the received data and/or file had errors when processed;
	<ul style="list-style-type: none"> provide details in real-time to the PMMS of each failed record and
	<ul style="list-style-type: none"> creation of Alerts to the PMMS when a response has not been received for individual records within the expected duration.
179	The Contractor shall provide data and/or file transmission and reconciliation reports as described in these Requirements.
180	All responses received from third-party Interfaces and all actions required of the third-party to a file transmitted by the BOS shall be associated with the original transaction, including but not limited to:
	<ul style="list-style-type: none"> Violation data and images;
	<ul style="list-style-type: none"> images of check copies for a payment;
	<ul style="list-style-type: none"> Notifications to customers transmitted by the Collection Agency;
	<ul style="list-style-type: none"> comments and dispositions transmitted in the response file and
	<ul style="list-style-type: none"> emails received from the customer related to a specific transaction/trip or Violation.
181	The Contractor shall provide the capability for Authorized Users to obtain the history of updates to a transaction/trip.
182	The Contractor shall provide a dashboard that tracks the progress of data and/or file transmissions through each stage and their acknowledgements by the receiving entity, including but not limited to:
	<ul style="list-style-type: none"> transactions/trips eligible for transmission;
	<ul style="list-style-type: none"> file and/or data created with file name;
	<ul style="list-style-type: none"> file and/or data transmitted;
	<ul style="list-style-type: none"> file and/or data received;
	<ul style="list-style-type: none"> file and/or data accepted;

	<ul style="list-style-type: none"> file and /or data rejected;
	<ul style="list-style-type: none"> file and/or data re-transmitted;
	<ul style="list-style-type: none"> number of records in the file and/or data set;
	<ul style="list-style-type: none"> number of unique user accounts and
	<ul style="list-style-type: none"> number of failed records.
183	The Contractor shall provide the capability for Authorized Users to configure the relevant parameters related to file and/or data transmission for each Interface. For example, scheduling the time-of-day that a specific file is transmitted.
184	The Contractor shall monitor the disk capacity where files and/or data are deposited and send an Alert to the PMMS and third-party entities (if applicable) if folders are near capacity (Configurable) or full.
185	The Contractor shall provide the capability to automatically archive successfully processed data and/or files after a number of days (Configurable).
186	The Contractor shall provide the data to reconcile file transmissions.
187	The Contractor shall conform to any existing ICDs, including any updates required at the time of design and develop all new ICDs that are required to be developed. It is the Contractor's responsibility to ensure all ICDs (including existing) are accurate, updated and meet the Requirements of the BOS before developing the Interfaces. Standards-based Interfaces shall be used when available and all Interfaces shall be Approved by the Authority.
188	Where the Third-party Service Provider and Business Partner currently supports or is willing to develop a more modern and current interface, the Contractor shall be responsible for developing the ICD or using the ICD to develop the new Interface as directed by the Authority.
189	The Contractor shall implement required updates to Interfaces at the direction of the Agencies at no additional cost to the Agencies.

1.1.3.2. Interface to the ETTM System

This Interface connects the BOS with the ETTM System for transmitting transactions/trips, images, toll rate information, transponder files, license plate files and other data to the BOS for processing and for transmitting various data back to the ETTM System.

190	It is anticipated that the BOS shall receive, process and store an average of four (4) transactions per trip, including both Toll Collection Enforcement Site (TCES) and Toll Transponder Read Site (TTRS) transactions.
191	If the BOS Implementation requires an update to the ETTM System ICDs, the Contractor shall develop the new ICD and coordinate all design, development and testing with the ETTM System Contractor.

192	The ETTM System ICDs may include many data fields, including but not limited to:
	• trip transaction ID;
	• trip ID;
	• timestamp for when the trip started;
	• amount of time that was being allotted for travel from the pricing sign to the toll zone;
	• occupancy setting applied for the overall trip;
	• Clean Air Vehicle identifier for overall trip;
	• motorcycle identifier for overall trip;
	• image-based or a tag-based trip identifier;
	• total fare assigned for the trip;
	• total fare that was in effect at the time of the trip;
	• primary transponder ID for the overall trip;
	• license plate number for the overall trip;
	• Jurisdiction of the license plate for the overall trip;
	• license plate type for the overall trip;
	• segment identifier;
	• lane identifier;
	• lane mode identifier;
	• Straddle – This is a yes/no type identifier for whether the vehicle was straddling the lane line when it went through the toll zone;
	• timestamp for when the transaction occurred;
	• transponder items below shall be enumerated for each transponder read at the toll zone, with all of the subsections being listed for each transponder;
	• transponder ID;
	• timestamp when the transponder was read;
	• transponder status;
	• transponder type;
	• transponder occupancy setting;

	<ul style="list-style-type: none"> primary transponder identifier;
	<ul style="list-style-type: none"> buffered transponder read identifier;
	<ul style="list-style-type: none"> spurious transponder read identifier;
	<ul style="list-style-type: none"> license plate number selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> jurisdiction of the license plate selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> license plate type selected for the transaction based on confidence values;
	<ul style="list-style-type: none"> OCR confidence;
	<ul style="list-style-type: none"> occupancy detection system occupancy assigned (if applicable);
	<ul style="list-style-type: none"> occupancy assigned;
	<ul style="list-style-type: none"> Clean Air Vehicle identifier;
	<ul style="list-style-type: none"> motorcycle identifier;
	<ul style="list-style-type: none"> Image items below shall be enumerated for each image captured at the toll zone, with all of the subsections being listed for each image;
	<ul style="list-style-type: none"> file name for the image;
	<ul style="list-style-type: none"> camera that took the image;
	<ul style="list-style-type: none"> timestamp for when the image was captured;
	<ul style="list-style-type: none"> license plate number reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> jurisdiction of the license plate reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> license plate type reported by the OCR/image review system for the individual image;
	<ul style="list-style-type: none"> OCR confidence value for the license plate assigned by the OCR/image review system for the individual image and
	<ul style="list-style-type: none"> payment type identifies whether the individual transaction registered as an Image-Based or a Transponder-Based Transaction.
193	The Contractor shall Interface to the ETTM System to obtain and acknowledge 100 percent of all transactions/trips, associated transaction and Violation images in accordance with the ICDs to be developed during Project design.
194	The ETTM System Interface shall be capable of the following Configurable functionality, including but not limited to:

	<ul style="list-style-type: none"> • sending the comprehensive and incremental Authority Tag Status Files and License Plate Status Files (for both the CTOC Agencies' and Interoperable Agencies') in real-time and at scheduled intervals (e.g., every 10 minutes). The BOS shall support sending the Tag Status File and Plate Status File as single file or as separate files;
	<ul style="list-style-type: none"> • sending Interoperable Agency transponder statuses periodically (incremental and comprehensive) multiple times per day (e.g., every 10 minutes);
	<ul style="list-style-type: none"> • sending rental car files (incremental and comprehensive) multiple times per day (e.g., every 10 minutes);
	<ul style="list-style-type: none"> • sending Plate Correction List from customer disputes and audit checks no less than every hour;
	<ul style="list-style-type: none"> • sending Processing Exception List maintained at the BOS no less than every hour;
	<ul style="list-style-type: none"> • receiving Transponder-Based Transactions/Trips;
	<ul style="list-style-type: none"> • receiving Image-Based Transactions/Trips (including license plate number, Jurisdiction, and type, if required) and
	<ul style="list-style-type: none"> • receiving other files (such as toll rate schedules and variable pricing information).
195	The Contractor shall provide the capability to positively acknowledge (ACK) message receipt, negatively acknowledge or reject a message (NACK) and reconcile data transmissions from the ETTM System.
196	<p>The Contractor shall receive and store color and black and white images for each transaction that comprises the trip, from the ETTM System including:</p> <ul style="list-style-type: none"> • ROI image(s) – average of approximately 8KB per image; • full rear image(s) – average of approximately 450KB per image; • full rear straddle image(s) – average of approximately 450KB per image and • overview image(s) – average of approximately 450KB per image.

1.1.3.3. Interface to the Interoperable Agencies

This Interface connects the BOS with the Interoperable Agencies for data exchange.

197	The Contractor shall provide the Interface to WRT0/CTOC Interoperable Agencies and Regional and National Hubs, for the functionality described within these Requirements and in accordance with latest and future WRT0/CTOC ICDs.
198	The Contractor shall provide the capability to obtain and acknowledge 100 percent of all transactions/trips and images from Interoperable Agencies.
199	The Contractor shall provide the capability to transmit 100 percent of all Interoperable Agency customer transactions/trips and images to their respective Interoperable Agencies.

200	The Contractor shall provide the capability (Configurable) to transmit the Authority's plaza update (including addition of new plaza facilities) information to Interoperable Agencies.
201	The Contractor shall provide the capability (Configurable) to receive Interoperable Agencies' plaza update (including addition of new plaza facilities) information.
202	The Contractor shall provide the capability (Configurable) to transmit the Authority's Transponder Status Lists (TSLs) to Interoperable Agencies.
203	The Contractor shall provide the capability (Configurable) to receive Interoperable Agency TSLs from Interoperable Agencies.
204	The Contractor shall provide the capability (Configurable) to transmit BOS customer license plate numbers to Interoperable Agencies.
205	The Contractor shall provide the capability (Configurable) to receive license plate numbers from Interoperable Agencies.

1.1.3.4. Interface to California and Arizona DMV

This Interface connects to the California, Arizona, Oregon and Nevada DMVs to obtain information (such as name, address, vehicle make/model, CAV designation, VIN) about vehicles which fail to properly pay the toll amount.

206	The Contractor shall provide and administer a direct DMV Interfaces for the purpose of obtaining registered owner information for vehicles travelling in the Express Lanes Facility and the placement and release of vehicle Registration Holds, including.
	<ul style="list-style-type: none"> California DMV;
	<ul style="list-style-type: none"> California Temporary License Plate DMV database;
	<ul style="list-style-type: none"> Arizona DMV (including Temporary License Plate DMV database if applicable);
	<ul style="list-style-type: none"> Oregon DMV (including Temporary License Plate DMV database if applicable) and
	<ul style="list-style-type: none"> Nevada DMV (including Temporary License Plate DMV database if applicable).
207	Whenever available, the Contractor shall use the on-line DMV interface allowing for real time look ups and updates. If multiple DMV interfaces are available to provide the same information, during the Implementation Phase the Authority shall direct the Contractor as to which Interface to implement.
208	The Contractor shall obtain approval from all DMVs to be a processor for OCTA.
209	The Contractor shall maintain all security requirements required by all DMVs.

1.1.3.5. Interface to Rental Car Service Providers

This Interface connects to Rental Car Service Providers to exchange transactions/trips, vehicle, renter information, rental agreements and payment information with the BOS, for rental cars that incur tolls on the Authority's Toll Facilities.

210	The Contractor shall provide the capability to transmit and receive vehicle information from all rental car companies using a Rental Car Service Providers.
211	The Contractor shall provide the Interfaces to Rental Car Service Providers for the functionality described within these Requirements and in accordance with ICDs to be developed during Project design.
212	The Contractor shall provide the capability to schedule and automatically send periodic (Configurable) detailed rental car account toll transaction/trip files to Rental Car Service Providers.

1.1.3.6. Interface to Transportation Corridor Agencies (TCA) for the Disposition of Rental Car Trips

The Transportation Corridor Agencies (TCA) intends to host rental car plates and transponders and collect tolls on behalf of other CTOC agencies.

213	The Contractor shall provide the capability to transmit and receive vehicle information from TCA in a separate TSL and License Plate Status File IOP file.
214	The Contractor shall provide the capability to provide TCA with toll amounts due for the plates and transponders in the rental file and process payments from TCA.

1.1.3.7. Interface to the Authority's BOS Bank

This Interface is to the Authority -provided bank to retrieve all required banking information.

215	The Contractor shall provide an Interface to the Authority Bank to retrieve, process and store all information required to support the all-electronic BOS bank reconciliation process.
216	The interface shall support the use of Positive Pay to deter check fraud.

1.1.3.8. Interface to California Franchise Tax Board (FTB) Tax Intercept Program

This Interface is to the California FTB Tax Intercept Program to provide and receive all required tax intercept information.

217	The Contractor shall provide an Interface to the California FTB to retrieve, process and store all information required to support the tax intercept process.
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1.1.3.9. Interfaces to Authority's Financial Accounting Systems

218	The Contractor shall provide an Interface to OCTA's financial accounting system for the purpose of issuing refund checks and other accounts payable checks.
219	The Contractor shall provide an Interface to OCTA's financial accounting system for the purpose of recording financial activity to the general ledger.

1.1.3.10. Interface/Connectivity to Contractor-Provided Services

The Contractor shall provide connectivity to service providers for which the Contractor is responsible. The Requirements are not prescriptive as to the Interface type or method.

220	The Contractor shall provide connectivity to Contractor selected Third-party Service Providers and Business Partners as required to meet the Requirements, including but not limited to:
	<ul style="list-style-type: none"> Collection Agency 1 (Direct Access to BOS is Phase II Functionality);
	<ul style="list-style-type: none"> Collection Agency 2 (Direct Access to BOS is Phase II Functionality);
	<ul style="list-style-type: none"> Customer Satisfaction Survey Provider Subcontractor;
	<ul style="list-style-type: none"> Lockbox Service Provider (optional);
	<ul style="list-style-type: none"> Merchant Service Provider 1;
	<ul style="list-style-type: none"> Merchant Service Provider 2;
	<ul style="list-style-type: none"> 3rd Party ROV Lookup for all 50 states (excluding direct connect DMVs), District of Columbia, U.S. Government and
	<ul style="list-style-type: none"> Print/Mail House Provider (optional).

1.1.4. Performance Management and Monitoring System

The Performance Management and Monitoring System (PMMS) supports BOS maintenance Requirements for all Hardware, Software and other BOS components by monitoring BOS processes, equipment, jobs and Interfaces in real-time to identify degradations in performance or availability before they impact end users. The PMMS generates Alerts and creates actionable trouble tickets that can be tracked to resolution.

221	The Contractor shall provide a PMMS that supports BOS maintenance Requirements for all Hardware, Software and other BOS components, in accordance with these Requirements.
222	The Contractor shall provide a PMMS that monitors, Alerts and generates trouble tickets in real-time for all BOS processes, equipment, jobs and Interfaces, including but not limited to:
	<ul style="list-style-type: none"> communications issues;
	<ul style="list-style-type: none"> electrical power issues;
	<ul style="list-style-type: none"> temperature issues;
	<ul style="list-style-type: none"> Hardware issues;
	<ul style="list-style-type: none"> Software issues or failures;
	<ul style="list-style-type: none"> database issues;
	<ul style="list-style-type: none"> anomalies to the system design;

	<ul style="list-style-type: none"> • issues with customer portals (Self-Service Website and Self-Service Mobile Application (Phase II and optional));
	<ul style="list-style-type: none"> • file systems and file system issues;
	<ul style="list-style-type: none"> • issues with jobs, processes or data flows;
	<ul style="list-style-type: none"> • BOS health – overall and by component;
	<ul style="list-style-type: none"> • BOS and application performance;
	<ul style="list-style-type: none"> • BOS utilization – disk space, disk IOs, CPU, memory, throughput (Configurable thresholds);
	<ul style="list-style-type: none"> • security events;
	<ul style="list-style-type: none"> • Logs;
	<ul style="list-style-type: none"> • access controls;
	<ul style="list-style-type: none"> • CSC CCTV Surveillance System and
	<ul style="list-style-type: none"> • CSC physical security systems.
223	The PMMS shall provide comprehensive recording capabilities, including but not limited to:
	<ul style="list-style-type: none"> • log aggregation (from disparate systems or Modules);
	<ul style="list-style-type: none"> • event correlation (cause and effect association);
	<ul style="list-style-type: none"> • log shipping and
224	<ul style="list-style-type: none"> • log management functions.
	The PMMS shall have the ability to receive success or failure information regarding data management activities, including but not limited to:
	<ul style="list-style-type: none"> • backup;
	<ul style="list-style-type: none"> • DR data transfer and synchronization status;
	<ul style="list-style-type: none"> • data archival and
225	<ul style="list-style-type: none"> • data restores.
	The Contractor shall provide a PMMS that monitors, alerts and tracks, in real-time, unusual or potentially fraudulent activity triggered by users and systems, including but not limited to:
	<ul style="list-style-type: none"> • multiple one-time replenishments coupled with closing of customer accounts;
	<ul style="list-style-type: none"> • repeated opening and closing of customer accounts;
	<ul style="list-style-type: none"> • refunds over a dollar amount (Configurable) and

	<ul style="list-style-type: none"> multiple deposits and refunds on the same customer account.
226	The PMMS shall monitor that all BOS components have current and up-to-date virus, firewall and spam protection and other security Software that prevent single point of vulnerability from external threats, virus attacks, ransomware, spam protection and unauthorized access.
227	<p>The Contractor shall provide a PMMS that monitors, alerts and tracks, in real-time, unusual or potentially fraudulent activity, including but not limited to:</p> <ul style="list-style-type: none"> attempted network or system intrusions; attempted malicious attacks and Unexpected changes to security settings on firewalls and other security systems.
228	<p>The PMMS shall include, but not be limited to the following capabilities:</p> <ul style="list-style-type: none"> receiving and monitoring status messages for all BOS Hardware and Software; grouping, sorting and filtering by message type, time, equipment, subsystem, etc.; local trouble ticket manual entry or email entry by users; automatic work order generation; storing data in a relational database to allow for data recovery and flexibility in reporting the raw data (including dashboards and ad-hoc reporting); generating (automatically) monthly performance reports; tracking service requests; assigning priorities and actions to events; notifying (automatically) maintenance personnel via reports, text and email; assigning trouble tickets to maintenance personnel; reassigning (manually) trouble tickets to other maintenance personnel; escalating (automatically) trouble tickets to other maintenance personnel; recording time of acknowledgement by maintenance personnel; recording time of acknowledgement by all subsequently assigned maintenance personnel; recording time of repair; recording time of equipment recovery; recording completion of service calls;

	<ul style="list-style-type: none"> • attachment of common document type, such as Microsoft Word, Portable Document Format (PDF), email and screen capture images;
	<ul style="list-style-type: none"> • providing automatic Alerts for trouble tickets not closed in a specified time;
	<ul style="list-style-type: none"> • maintaining and tracking repair maintenance activity;
	<ul style="list-style-type: none"> • calculating response times, repair times and down time from the data entered by the maintenance staff and automatically generated by the BOS;
	<ul style="list-style-type: none"> • accepting and updating trouble tickets from mobile hand-held devices and smart phone entries;
	<ul style="list-style-type: none"> • role-based security;
	<ul style="list-style-type: none"> • automatic system exception reporting for all processes that are not running;
	<ul style="list-style-type: none"> • automatic system workflow exception reporting for all items that are not processing correctly or are hung up in the BOS and
	<ul style="list-style-type: none"> • providing hard copy reports on issues, failures and trouble resolution status.
229	The PMMS shall record all configuration data in a configuration management database, which shall be updated after each system component change, including application of BOS patches.
230	The PMMS shall provide system maintenance personnel with screens, dashboards and reports within the PMMS that allows for the verification and monitoring of all processes, programs and scheduled tasks. Failures shall be visible in a PMMS screen accessible to maintenance personnel. Event and error logs shall be provided to assist maintenance personnel with investigating problems.
231	All PMMS screens, dashboards and reports shall be available to Authorized Users from the Authority.
232	The PMMS shall provide Authorized Users with operational, management and performance reports from the PMMS that include but are not limited to:
	<ul style="list-style-type: none"> • summarized and detailed alarm history;
	<ul style="list-style-type: none"> • maintenance paging and response history;
	<ul style="list-style-type: none"> • work order status and tracking;
	<ul style="list-style-type: none"> • equipment inventory and life cycle tracking;
	<ul style="list-style-type: none"> • equipment availability;
	<ul style="list-style-type: none"> • preventive and predictive maintenance;
	<ul style="list-style-type: none"> • corrective maintenance;
	<ul style="list-style-type: none"> • response and repair times for each of the priorities;

	<ul style="list-style-type: none"> • equipment use history;
	<ul style="list-style-type: none"> • equipment repair history;
	<ul style="list-style-type: none"> • total System availability;
	<ul style="list-style-type: none"> • sub-System availability for components of the BOS, IVR System, Self-Service Website and Self-Service Mobile Application (Phase II and optional);
	<ul style="list-style-type: none"> • equipment versions, Software versions, firmware versions and serial numbers for all equipment installed under these Requirements;
	<ul style="list-style-type: none"> • incident logs and lost revenue estimates;
	<ul style="list-style-type: none"> • performance reports detailing compliance to the Performance Measures;
	<ul style="list-style-type: none"> • a detailed list of parts replaced as a result of maintenance actions;
	<ul style="list-style-type: none"> • status of removed parts and equipment with an aging status for parts under repair or replacement (serial numbers, being repaired in maintenance shop, purchase replacement part);
	<ul style="list-style-type: none"> • performance reports;
	<ul style="list-style-type: none"> • an exceptions report summarizing all unusual or significant occurrences during the period and
	<ul style="list-style-type: none"> • trend analysis for repetitive failure.
233	The PMMS shall support the management of preventive/predictive maintenance schedules.
234	The PMMS shall provide the capability to automatically generate work orders for preventive/predictive maintenance tasks.
235	The Contractor shall provide a PMMS that supports asset management, including but not limited to:
	<ul style="list-style-type: none"> • tracking all System Hardware and Software items;
	<ul style="list-style-type: none"> • tracking all System Hardware and Software locations;
	<ul style="list-style-type: none"> • tracking all System Hardware and Software versions;
	<ul style="list-style-type: none"> • tracking all maintenance and service agreements;
	<ul style="list-style-type: none"> • maintaining a list of vendors from which products were procured;
	<ul style="list-style-type: none"> • associating the original purchase order number to the individual item;
	<ul style="list-style-type: none"> • associating the original vendor to the individual item;
	<ul style="list-style-type: none"> • associating all warranty information to the individual item and
	<ul style="list-style-type: none"> • providing an Alert prior to warranty, license, and certification expiration.

1.2. BOS Maintenance and Support Requirements

The Requirements described in this section detail the Contractor's responsibility for providing Maintenance and Software Support Services for the BOS, and associated communications and support to operations, including but not limited to:

- Hardware maintenance (servers, storage, network switches, firewalls, routers, etc.) if required;
- network administration;
- system administration;
- administration of CSC facility physical security systems;
- administration of CSC Surveillance CCTV systems at CSC facility;
- database administration;
- Maintenance and Software Support Services;
- monitoring services;
- on-site desktop and application support services within the I-405 CSC and WIC;
- on-site desktop and I-405 BOS application support services at the OCTA Store WIC (OCTA provided equipment);
- support of work at home CSRs and operations during Business Continuity;
- application support for the Authority's staff and
- BOS security.

In delivering the Maintenance and Software Support Services, the Contractor is expected to provide the following services, including but not limited to:

- well documented maintenance schedules and processes;
- change and configuration management;
- on-site support of the BOS;
- complete around-the-clock maintenance of the BOS;
- significant participation with the Authority's staff, meetings and processes and
- ample spare parts inventory and support agreements.

236	The Contractor shall be responsible for performing all maintenance activities and fully supporting and maintaining the BOS from Go-Live throughout the Operations and Maintenance Phase.
237	The Contractor shall provide maintenance, including but not limited to all equipment, Hardware, Software, cloud-based systems, and systems provided under this Agreement, including maintenance associated with the compliance with the terms of the Software warranty.

238	The Contractor shall provide Maintenance and Software Support Services, including but not limited to: monitoring; preventive; predictive; corrective, and emergency Maintenance and Software Support Services, as well as any required and planned Upgrades and Enhancements to be performed on any and all BOS elements.
239	To ensure BOS performance is optimized, all system administrative functions, if not otherwise automated, shall be performed at regular, scheduled intervals as part of the preventive Maintenance and Software Support Services in accordance with the Maintenance Plan.
240	The Contractor shall administer, maintain (as required in conjunction with Authority paid maintenance agreement) and be the point of contact for all Authority provided and paid for equipment, systems and maintenance agreements, including uninterruptable power equipment, power generators, CCTV Surveillance and physical security systems at the I-405 CSC and WIC facility.
241	The Contractor shall provide on-site Desktop Environment and BOS application technical support to all Contractor personnel and Authority Authorized Users at all locations from 7 a.m. to 7 p.m. Monday – Friday, Pacific Time and be on-call and available to come on-site 24x7x365.
242	The Contractor shall provide support for work-at-home CSRs and operations and in accordance with the Approved Disaster Recovery and Business Continuity Plans. For example, during an event similar to the COVID-19 outbreak.
243	<p>Continuous monitoring of BOS operations shall be performed to verify its functional, processes are being executed as scheduled and that the BOS is operating per Performance Measures. Continuous monitoring shall include but not be limited to:</p> <ul style="list-style-type: none"> • verifying system alarms and Alerts; • verifying processes/programs/job have successfully completed as scheduled; • evaluating sample transactions data and aggregate data trends for exceptions; • confirming trip/transaction and image transmission to and from the ETM System; • performing routine diagnostics; • reviewing comparative reports to identify potential system degradation; • confirming successful data transfer, such as the TSL; • confirming data transmission to and from external Interfaces; • correcting identified performance issues; • confirming primary and DR systems are synchronized; • monitoring backups; • database administration and monitoring;

	<ul style="list-style-type: none"> • general System health;
	<ul style="list-style-type: none"> • evaluating storage Requirements and
	<ul style="list-style-type: none"> • reviewing error logs and Alerts.
244	The Contractor shall validate that all BOS components obtain virus protection and security updates as soon as they are available.
245	The Contractor shall provide advance notice and obtain Approval when purging jobs that permanently delete data from the system are to be executed, including but not limited to: data elements impacted, date range applied and data size impact.
246	The Contractor shall re-establish or re-install system files, programs and parameters, as required, following a failure or damage to the system and return the BOS to a fully-operational condition.
247	The Contractor shall maintain and test up-to-date Software backups (all system Software and data) in accordance with the Maintenance Plan that is secure and protects the integrity of the data.
248	The Contractor shall provide backups performed on physically separate Hardware and Software from the data being backed up.
249	The Contractor shall maintain accurate equipment inventory status and update status.

1.2.1. BOS Hardware Maintenance

250	During the Operations and Maintenance Phase, the Contractor shall plan to regularly Upgrade all BOS environments to maintain a high-level of performance, reliability and provide for the implementation of the manufacturer's current system and security firmware/software. These Upgrades shall be accounted for in the Contractor's Price Proposal and will not be separately paid for by the Authority over the term of the Agreement.
251	During the Operations and Maintenance Phase, the Contractor shall Upgrade the Desktop Environments and office equipment no less than every three (3) years to maintain a high-level of performance and reliability. These Upgrades shall be accounted for in the Contractor's Price Proposal and will not be separately paid for by the Authority over the term of the Agreement.
252	BOS Hardware maintenance shall include but are not limited to:
	<ul style="list-style-type: none"> • BOS servers, storage devices, backup devices and network equipment at the primary BOS site, including all production and non-production BOS environments as required;
	<ul style="list-style-type: none"> • BOS servers, storage devices, backup devices and network equipment at the BOS DR site;
	<ul style="list-style-type: none"> • all Contractor-provided desktop Hardware and peripherals;

	<ul style="list-style-type: none"> all Hardware and peripherals that interact with the BOS to the extent that the Contractor-installed Software or applications are negatively affecting the operation of the peripheral;
	<ul style="list-style-type: none"> all CSC office equipment. For example, copiers and printers and
	<ul style="list-style-type: none"> IVR, ACD and telephony systems.

1.2.2. BOS Network System Maintenance

253	Any maintenance and/or replacement costs shall be included in the Contractor's Price Proposal and will not be separately paid for by the Authority over the term of the Agreement unless explicitly noted.
254	During the Operations and Maintenance Phase, the Contractor shall plan to regularly Upgrade the network hardware to maintain a high-level of BOS reliability and provide for the implementation of the manufacturer's current system and security firmware/software. These Upgrades shall be included in the Contractor's Price Proposal and will not be separately paid for by the Authority over the term of the Agreement.
255	The Contractor shall maintain and monitor the BOS network, including connection of the primary and DR BOS locations.
256	The Contractor shall proactively monitor the WAN network, its connections and its components to respond to any fault or problem.
257	The Contractor shall monitor all communications with interfacing systems and Third-Party Service Providers and Business Partners.
258	The Contractor shall monitor all network Alerts and alarms, as well as detect intrusion attempts and prevent intrusions.
259	The Contractor shall perform the necessary support services required of the Interoperable Agencies in order to keep day to day operations and transfers current, such as operating system Upgrades.
260	The Contractor shall Upgrade and update the network security and provide the required software and monitoring tools to ensure the BOS is always in compliance with the Security Standards.

1.2.3. BOS Administration and Software Support Services

261	The Contractor shall include in their Price Proposal all administration, system maintenance and software maintenance costs. The Authority shall only pay for items that are explicitly identified as being paid for by the Authority. Software modifications required to maintain and support the BOS as a part of the normal course of business shall not be considered Upgrades or Enhancements paid for by the Authority. These modifications include but are not limited to:
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	<ul style="list-style-type: none"> • Updates the System to keep up with and support new mobile devices, mobile browsers, desktop browsers and operating systems, mobile and desktop customer experience trends, mobile payments, trends in mobile device and desktop navigation techniques, as well as updated look and feel for the Self-Service Website and Self-Service Mobile Application (Phase II and optional);
	<ul style="list-style-type: none"> • version changes;
	<ul style="list-style-type: none"> • configuration or parameter changes;
	<ul style="list-style-type: none"> • all changes to Interoperable or CTOC ICDs and related reports;
	<ul style="list-style-type: none"> • all changes to ICDs and Interfaces to Contractor-selected Third-Party Service Providers and Business Partners;
	<ul style="list-style-type: none"> • minor changes to reports, software or code;
	<ul style="list-style-type: none"> • Software modifications required to ensure BOS is compliant to existing Security Standards and
	<ul style="list-style-type: none"> • changes for the Contractor's benefit that improve the Contractor's ability to maintain and support the BOS and to meet the Performance Measures.
262	<p>The Contractor shall provide Maintenance and Software Support Services for all elements of the BOS, including but not limited to:</p>
	<ul style="list-style-type: none"> • operating systems;
	<ul style="list-style-type: none"> • databases;
	<ul style="list-style-type: none"> • BOS application Software;
	<ul style="list-style-type: none"> • third-party Software;
	<ul style="list-style-type: none"> • Software change management;
	<ul style="list-style-type: none"> • Software configuration management and
	<ul style="list-style-type: none"> • Software version control.
263	<p>The Contractor shall maintain all secure website certificates for all websites, including the website serving the Authority managed content, if required.</p>
264	<p>The Contractor shall provide Maintenance and Software Support Services that include monitoring, preventive, predictive and corrective action to ensure BOS performance is in accordance with Requirements. This shall include but is not limited to:</p>
	<ul style="list-style-type: none"> • any daily, weekly or periodic maintenance required to maintain the BOS at required performance levels (such as, indexing and tuning databases and archiving and purging);

	<ul style="list-style-type: none"> third-party Software or firmware patches, updates and Upgrades, as required and to be compliant with Security Standards, including but not limited to: performing security Software Upgrades, database Upgrades and operating system Upgrades;
	<ul style="list-style-type: none"> Approved adjustments and updates to the BOS data based on a criteria and conditions Approved by the Authority to correct failures and issues;
	<ul style="list-style-type: none"> monitoring of error logs and system logs;
	<ul style="list-style-type: none"> maintenance of back-ups and backup Software;
	<ul style="list-style-type: none"> maintenance of all BOS environments;
	<ul style="list-style-type: none"> installation of new Software and confirmation of successful installation;
	<ul style="list-style-type: none"> verify data replication to DR site is occurring as configured and replication is not drifting beyond an acceptable threshold;
	<ul style="list-style-type: none"> verify time synchronization is occurring as configured, and system clocks are not drifting or otherwise incorrect;
	<ul style="list-style-type: none"> modifications to IVR call flow needed to correct routing and call flow problems identified during normal operations;
	<ul style="list-style-type: none"> creation of ad-hoc reports requested by the Authority;
	<ul style="list-style-type: none"> generation of queries as requested by the Authority;
	<ul style="list-style-type: none"> analysis of data as requested by the Authority and
	<ul style="list-style-type: none"> modifications to the Self-Service Website and Self-Service Mobile Application (Phase II and optional) to keep up-to-date with the Authority's policies and general information.
265	<p>Software support services shall include monitoring and corrective action to ensure BOS performance is in accordance with Requirements, to include database management and operation. This shall include but is not limited to:</p> <ul style="list-style-type: none"> investigation and analysis of errors and exceptions and taking corrective action, including correcting the problem and reprocessing the data; monitoring notifications and initiating corrective actions on application programs to meet Requirements; updates to the BOS to support Upgrades to Hardware or third-party Software and updates to the BOS to support all changes to Business Rules and BOS Configurable parameters and deploy changes in production.
266	<p>The Contractor shall monitor, Upgrade and update the BOS is always in compliance with the Security Standards.</p>

267	The Contractor shall ensure maintenance does not conflict with or cause interruption in service or cause substandard service to the Authority or its customers.
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1.2.4. Payment Card Industry (PCI) Security Standards and Compliance

The PCI Security Standards Council is responsible for the development, management, education and awareness of the PCI Security Standards, including the PCI DSS, Payment Application Data Security Standard (PA-DSS). The PCI Security Standards provide guidance for merchants, vendors and security consulting companies to mitigate data breaches and prevent payment cardholder data fraud.

The Contractor is responsible for ensuring that PCI compliance is fully achieved prior to the Go-Live date. The Contractor is further required to ensure that the BOS continues to be PCI compliant as outlined in the Maintenance and Operations Phase Requirements.

268	The Contractor and the BOS shall be in compliance with the PCI DSS for a Level 2 merchant or the appropriate merchant level as defined by the PCI Security Standards Council in place at the time of BOS Go-Live.
269	The Contractor shall ensure that the BOS is in compliance with any individual additions to the PCI Security Standards since the last major version or the current version published by the PCI Security Standards Council and all future versions.
270	The Contractor shall utilize the PCI Security Standards Council's Prioritized Approach method to indicate how each PCI Requirement is being addressed prior to Go-Live. The Prioritized Approach shall be submitted to the Authority along with substantiating evidence for review and Approval.
271	The Contractor shall ensure the BOS is in compliance with PCI-DSS for any Commercial Off-the-Shelf (COTS) Software that will be used in payment applications.
272	The Contractor shall provide, prior to the BOS Go-Live: <ul style="list-style-type: none"> • PCI Attestation of compliance by either a qualified ISA or an independent QSA, or as required by PCI DSS; • vulnerability scan by an Approved scanning vendor and • internal and external penetration testing results.
273	No more than three (3) months after Go-Live the Contractor shall provide a complete Report of Compliance (ROC), including details about the BOS environment and the assessment methodology, as well as documentation regarding the BOS's compliance status for each PCI DSS Requirement. The ROC shall be provided which outlines a clear plan and schedule (in writing) to achieve full PCI compliance no more than six (6) months after Go-Live.
274	The Contractor shall be responsible for providing a ROC prior to BOS Acceptance.

1.2.5. Interoperability Requirements

The Authority currently has Interoperability agreements with CTOC Agencies and, in the future, it is anticipated that regional and national Interoperable agreements will be established. These Requirements apply to all existing and future Interoperability.

Interoperability includes exchanging and processing transactions/trips, customer, transponder, payment, corrections, vehicle data, invoices and reconciliations between the BOS and the Interoperable Agencies. The BOS shall process transactions/trips from Interoperable Agencies for the Authority's customers who have used Interoperable Agency roads, as well as transactions/trips for Interoperable Agencies' customers on the Authority's facility. The Interface supports the transmission and receipt of all files identified in the respective ICDs.

At the Authority's direction, the Contractor shall support direct connection and/or connection through a CTOC Agency intermediary to nationally (non-CTOC) Interoperable Agencies.

The BOS and Interoperable Agencies perform validation checks to confirm the transactions/trips are in compliance with the Interoperable Agency ICD and reject any transactions/trips that are not. Validated transactions/trips shall be Posted to a user account in accordance with the Interoperable Agency agreements.

The BOS must be prepared to work with other ICDs to send and receive transactions/trips and transaction data and other data files.

275	The Contractor shall support all Interoperable Agency activities as required by the Authority, including but not limited to:
	• attend technical meetings;
	• review and provide comments on documents;
	• support Interoperable Agency testing as requested;
	• support modifications to Interoperable specifications and
	• be compliant with the latest published Interoperable specifications.
276	The Contractor shall support the addition of Regional and National Interoperability either directly or through a CTOC designated intermediary.

1.2.6. Preventive and Corrective Maintenance Requirements

1.2.6.1. Preventive Maintenance

277	The Contractor shall provide preventive maintenance on the BOS Hardware, servers, communications network and Software as required.
278	No less than quarterly the Contractor shall conduct a full network vulnerability scan and web application penetration testing performed by an independent Qualified Security Assessor (QSA).
279	Separate from the quarterly vulnerability scan, the Contractor shall conduct a full network vulnerability scan and web application penetration testing performed by an independent Qualified Security Assessor (QSA) in conjunction with any network or security changes.

280	The Contractor shall in accordance with the Approved preventive maintenance schedule, periodically inspect all equipment, both major components and support components (such as fans, cabinets, environmental control units, filters, storage units) that constitute the BOS and shall make repairs, cleaning, adjustments and replacements of components as necessary to maintain the equipment in normal operating condition.
281	Servers and storage devices shall be periodically checked to verify that storage space is not reaching maximum thresholds; disks are not fragmented or damaged; Software is of the latest version per the configuration management database, and data is being processed and transferred in an appropriate manner. These checks should be performed automatically whenever possible, but must be checked manually if the task cannot be automated.
282	<p>The BOS shall be monitored to ensure performance is optimal and meets the Performance Measures, including but not limited to:</p> <ul style="list-style-type: none"> • report generation times; • BOS access times; • IVR statistics; • Self-Service Website access times and • Self-Service Mobile Application (Phase II and optional) access times.
283	All equipment and systems shall be included as part of preventive maintenance, in accordance with the original equipment manufacturer's guidelines. Any variations or exceptions shall be noted by the Contractor and Approved in advance by the Authority.
284	Scheduled maintenance shall be communicated to the Authority a minimum of seven (7) Calendar Days in advance for approval by the Authority and shall be scheduled for times when the CSC is not operating.
285	Preventive maintenance shall be scheduled to be performed by BOS administration staff between 12 AM and 3 AM PST weekdays. Any preventive maintenance tasks that need to be performed during normal BOS operating hours that is not part of the Approved Preventive Maintenance Schedule shall be Approved in advance by the Authority.
286	The diagnostic aids, tools and equipment required to perform preventive maintenance equipment analysis shall be provided by the Contractor to the Authority, as necessary to meet the Authority's maintenance responsibilities.
287	When preventive maintenance requires a BOS Service to be made unavailable to the customer, a Notice shall be Posted 24 hours in advance of the outage on the Self-Service Website, Self-Service Mobile Application (Phase II and optional) and through the IVR so customers are aware of the impending outage.

1.2.6.2. Corrective Maintenance

288	All Work performed by the Contractor to correct incidents, problems and failures to meet the Requirements shall be considered corrective maintenance. Such problems include but are not limited to:
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	<ul style="list-style-type: none"> • failure of BOS functions;
	<ul style="list-style-type: none"> • failure of processes and programs;
	<ul style="list-style-type: none"> • report failures and issues;
	<ul style="list-style-type: none"> • application failures;
	<ul style="list-style-type: none"> • data and revenue reconciliation failures;
	<ul style="list-style-type: none"> • failures in transmitting and receiving files from the various third-party Interfaces;
	<ul style="list-style-type: none"> • errors and exceptions when processing data received from the ETMM System, Interoperable Agencies and third-party entities;
	<ul style="list-style-type: none"> • network failures and issues;
	<ul style="list-style-type: none"> • BOS or component performance issues;
	<ul style="list-style-type: none"> • data loss or inaccessibility and
	<ul style="list-style-type: none"> • non-conforming availability levels.
289	When a BOS Service becomes unavailable to the customer due to an unplanned outage or emergency a Notice shall be Posted on the Self-Service Website, Self-Service Mobile Application (Phase II and optional) and IVR as soon as possible so customers are aware of the outage.

1.2.6.3. 24X7 Maintenance Coverage

290	The Contractor shall provide continuous (24x7) coverage for all monitoring, system administration services and maintenance-related activities sufficient to meet the Performance Measures.
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1.2.6.4. Recording of Maintenance Activities

291	The Contractor shall be responsible for logging all reported maintenance activities. The Contractor also shall be responsible for documenting in detail all information and issues related to a failure condition, providing a corrective action report within two (2) weeks including all actions taken to complete the correction and a root cause analysis.
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1.2.6.5. Maintenance Priorities, Response and Repair Times

292	Response and repair time is defined as the time from failure to repair/correction with the BOS being returned to normal operations. The Contractor shall respond to calls and repair times noted in the Performance Measures according to the following priority levels:
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	<ul style="list-style-type: none"> • Priority 1: Any malfunction or fault that impacts the BOS and CSC Operations ability to serve customers (for example, Self-Service Website functionality unavailable or not operating properly; BOS functionality unavailable or not operating properly for CSRs servicing customers; phone system not taking calls or not taking all calls; IVR unavailable or not operating properly; notifications or customer communication not being sent immediately when eligible through all channels), results in the loss of revenue, compromises security, causes a hazard to personnel, causes the loss or potential loss of any BOS data, causes loss of redundancy within the BOS components. • Priority 2: Any malfunction or fault that degrades performance but not the BOS or CSC Operation's ability to serve customers. It includes examples such as inaccurate reporting, inability to reconcile revenue, loss of BOS functionality that does not impact customer access to data or service, and/or loss of functionality that impacts the Authority's operational efficiency. • Priority 3: Any malfunction or fault that has the potential to result in a degrading of the BOS or CSC Operations' performance but has not yet and is not anticipated to immediately impact performance.
293	Any downtime that is a part of scheduled and approved preventive maintenance, including scheduled new Software releases not associated with a maintenance event shall not affect the Performance Measures calculation. However, in this event the Contractor does not make the BOS available and/or fully restore CSC Operations within the approved schedule window, the resulting downtime shall be included in the Performance Measure calculations.
294	Response and repair times for every BOS maintenance event shall be recorded and reported by the Contractor, and such reports shall be provided to the Authority.
295	No incident shall be closed by a technician before the equipment or Software service has logged a recovery. For example, if a service is degraded because of a loss of a redundant component, the incident cannot be closed until the redundant component has been replaced and service has returned to normal.

1.2.7. Certification of PCI DSS Compliance

The Contractor is responsible for providing certification of PCI DSS Compliance.

296	The Contractor shall complete a PCI DSS assessment by either a qualified Internal Security Assessor (ISA) or an independent Qualified Security Assessor (QSA), or as required by PCI DSS, at the interval required for PCI DSS compliance, including a complete ROC. The Contractor shall be responsible for providing the ISA or QSA at no additional cost to the Authority. The Contractor shall fully cooperate with the Authority at no cost to the Authority in responding to the assessor's requests and implement remedies if any issues are identified.
297	The Contractor shall complete a full penetration vulnerability and exploitation testing, the results of which shall be provided to the Authority, at the interval required for PCI DSS compliance throughout the Implementation and Operations and Maintenance Phases.

298	The Contractor shall be responsible for providing a ROC on an annual basis, no later than the original date thereafter.
299	The Contractor shall provide all documentation required under PCI, including but not limited to network diagrams and detailed policies and procedures, available to the Authority.
300	To evaluate the security risk to the BOS and identify potential vulnerabilities, the Contractor shall perform penetration and vulnerability tests in accordance with PCI requirements.
301	The Contractor shall document and immediately report to the Authority any PCI DSS issues/vulnerabilities found during monthly penetration and vulnerability tests or upon new Software release.
302	The Contractor is responsible for correcting all deficiencies at the Contractor's cost and ensuring the BOS is PCI DSS compliant and ensuring security risks are handled appropriately.
303	The Contractor shall furnish copies of all PCI assessment, testing, scanning and compliance documentation including the ROC to the Authority, upon completion of quarterly and annual assessment activities throughout the Implementation and Operations and Maintenance Phases.

1.2.8. Emergency Response Management

The Contractor shall be responsible for emergency response management throughout the Operations and Maintenance Phase.

304	The Contractor shall immediately respond to any emergency situation that has already impacted the BOS or could potentially damage the BOS. The Contractor shall be prepared to put forth all necessary resources to divert or correct an emergency condition.
305	Such emergency conditions shall be handled in accordance with policies and procedures developed by the Contractor and Approved by the Authority in the Disaster Recovery and Business Continuity Plans. The following are a few examples of emergency conditions:
	<ul style="list-style-type: none"> • weather related;
	<ul style="list-style-type: none"> • safety related;
	<ul style="list-style-type: none"> • health related. For example, in response to a COVID-19 or similar outbreak;
	<ul style="list-style-type: none"> • conditions that invoke the Disaster Recovery and/or Business Continuity Plans;
	<ul style="list-style-type: none"> • BOS outages;
	<ul style="list-style-type: none"> • third-party power outage or communication failure and • security breaches.

1.2.9. Disaster Recovery and Business Continuity

The Contractor shall be responsible for Disaster Recovery Procedures and testing throughout the Implementation and Operations and Maintenance Phases.

306	The Contractor shall perform Disaster Recovery procedures in accordance with the Disaster Recovery Plan (DRP) in the event of a disaster and return the BOS to a fully operational condition.
307	The Contractor shall test the Disaster Recovery and Business Continuity procedures on an annual basis to validate that they are functioning per the design. The Authority shall witness the test and the Contractor shall provide a report outlining the test, test results and any anomalies encountered for the Authority's review and approval.
308	The BOS shall meet the Recovery Point Objective (RPO), Recovery Time Objective (RTO) and level of service (LOS) levels provided in the Performance Measures.
309	The Contractor shall address any issues encountered from the annual Disaster Recovery and Business Continuity testing.
310	The Contractor shall support the ETTM System Contractor's Disaster Recovery and Business Continuity annual testing.

1.2.10. Incident and Revenue Loss Reporting

311	The Contractor shall work with the Authority to develop a communications protocol for incident and revenue loss reporting (e.g., communications procedures based on incident and priority level).
312	The Contractor shall immediately notify the Authority of any incident or event where the loss of revenue or data or security breach has occurred or potentially has occurred or could occur. The Contractor shall take immediate action to rectify the condition and return the BOS to normal operations.
313	In the event of a loss or potential loss of revenue or data or security breach, an incident report shall be provided to the Authority within five (5) Business Days of the incident. The report shall identify the issue and provide a detailed account of the incident; its cause; duration; resolution or planned resolution, and a quantification of actual or potential lost revenue or data or security breach. Regular updates shall be provided until the issue has been fully resolved and closed. The incident and its impacts shall also be further detailed in the subsequent monthly report. The Contractor shall be held responsible for all lost revenue and data and customer impacts, including remediation, in accordance with the terms of the Agreement.

1.3. Future Functionality

The BOS shall be designed to anticipate certain future functionality and Interfaces. The introduction of future functionality, of the type noted in this section, shall be anticipated and not require changes to the Software or System architecture or significant changes to the database structure. However, the accommodations made by the Contractor in anticipation of this potential future functionality shall not negatively impact the development of the BOS or increase the Offeror's Price Proposal.

314	The introduction of future functionality shall not require changes to the Software or BOS architecture, or significant changes to the database structure including the capability to easily add fields and report on them without affecting the database schema.
315	The accommodations made by the Contractor in anticipation of potential future functionality shall not negatively impact the development of the BOS or increase the Offeror's Price Proposal.
316	The Contractor shall provide the capability to Interface with entities providing for national Interoperability in accordance with ICDs to be designated by the Authority and/or developed during Project design. The Contractor shall accommodate new Interfaces (via either a national hub, regional hubs or larger peer-to-peer exchanges) without significant changes to the Software or database structure.
317	The BOS design, data schema, financial accounting and reporting approach shall support the future, potential direct support of additional OCTA and non-OCTA Toll Facilities. All functionality provided shall be easily configured to support these potential additional Toll Facilities. For example, Configurable settings shall be capable of different settings for different Toll Facilities. The design shall not add repetitive and/or additional clicks in order to navigate screens, search data or configure reports while the BOS is supporting only the I-405 Toll Facility. For example, the user shall not have to select "OCTA" or "I-405" until such time as an agency or Toll Facility differentiation is required.
318	The Contractor shall provide the capability to Interface to new CTOC agencies and national interoperability without significant changes to the Software or database structure.
319	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the future integration with a Money Service Provider. Throughout the Operations and Maintenance Phase, the Authority may direct the Contractor to integrate with a Money Services Provider for the purpose of providing enhanced access and services for cash paying customers including, obtaining transponders and making payment towards Violation Notices and account balances.
320	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the future integration with an Occupancy Detection System (ODS) that would be integrated into the ETSM System. Throughout the Operations and Maintenance Phase, the Authority may direct the Contractor to integrate with and accept images from an ODS for the purpose of reducing occupancy-based Violations.
321	The Contractor shall include (but not enhance, configure or develop) all existing base BOS functionality to support the potential introduction of customer invoicing prior to the Violation process described herein. During the Operations and Maintenance Phase, the Authority may direct the Contractor to implement customer invoicing.

1.4. Account Management

There are two account types Registered and Unregistered. Registered account is established when customer opens a pre-paid account with the Express Lanes. An Unregistered account is established by the BOS using the DMV, a ROV Lookup Provider or Affidavit of Non-liability for Violation

transactions/trips. Establishment and management of accounts shall be performed per Business Rules.

Customers can establish new Registered accounts or convert an Unregistered account to a Registered account. To establish a Registered account, customers must provide customer contact information including name, address, telephone number and email address and vehicle information including license plate number, type and Jurisdiction and vehicle make, model and color. Most accounts will be prepaid and as such customers also must establish a replenishment method to be used to replenish prepaid tolls when the account reaches the Insufficient Balance Threshold. Credit Card replenishment is strongly encouraged, but customers can also select cash or check replenishment. The Authority may elect to allow certain accounts to be postpaid and receive a monthly invoice for tolls due.

The types of accounts are provided in the following tables:

Table 1-1: Registered Transponder-Based (FasTrak) Account Types

Account Type	Description
Private (prepaid)	An account established in an individual name.
Business (prepaid)	An account established in a business name.
Non-revenue (n/a)	An account established at the Authority's direction for vehicles entitled to toll-free travel.
Invoice (postpaid)	An account established to allow the customer to receive an invoice periodically (Configurable) for toll usage. The customer may elect to provide Credit Card or ACH information to be charged automatically to pay the invoice.

Table 1-2: Registered License Plate Account Types

Account Type	Description
Rental Car (prepaid or postpaid)	An account established for Rental Car Service Providers to allow their vehicles to be checked separately in the transaction/trip Posting sequence and to allow for bulk updates to these very large accounts.
Private Registered Video (prepaid)	An account for individuals who do not want or cannot use transponders.
Business Registered Video (prepaid)	An account for companies and businesses that do not want or cannot use transponders.

Table 1-3: Unregistered License Plate-Based Account Types

Account Type	Description
Unregistered/Violator (postpaid)	An account created using the information provided by the DMV

	or Registered Owner Lookup Provider. May include more than one vehicle if the ROV information is an exact match. These may also be referred to as violator accounts.
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Unregistered accounts are established by the BOS for Violation transactions/trips using the DMV or Registered Owner Lookup Provider. Unregistered accounts may be converted to Registered accounts based on fulfilling all of the required Business Rules for establishing these accounts.

1.4.1. General Account Management

The Authority's customers have many options for account establishment and maintenance and to obtain transponders, in the manner they prefer.

322	The Contractor shall provide an efficient series of input fields to collect the information necessary to open a FasTrak account. The fields should require little "clicking" or advancement through multiple pages to reduce the time needed to input the account establishment data.
323	Support comprehensive account management that allows for the setup and maintenance of all Account types in accordance with Business Rules.
324	The Contractor shall provide the capability to establish accounts via methods, including but not limited to: <ul style="list-style-type: none"> • Self-Service Website; • Self-Service Mobile Application (Phase II and optional); • mail; • telephone; • fax; • walk-in; • automatically using information provided by rental car companies and • automatically using information provided by the ROV Lookup.
325	The Contractor shall provide the capability to maintain accounts via methods, including but not limited to: <ul style="list-style-type: none"> • Self-Service Website; • Self-Service Mobile Application (Phase II and optional); • IVR; • mail;

	<ul style="list-style-type: none"> • telephone;
	<ul style="list-style-type: none"> • email;
	<ul style="list-style-type: none"> • chat;
	<ul style="list-style-type: none"> • text;
	<ul style="list-style-type: none"> • fax and
	<ul style="list-style-type: none"> • walk-in.
326	The Contractor shall provide the capability for transponders to be requested via methods including but not limited to:
	<ul style="list-style-type: none"> • Self-Service Website;
	<ul style="list-style-type: none"> • Self-Service Mobile Application (Phase II and optional);
	<ul style="list-style-type: none"> • mail;
	<ul style="list-style-type: none"> • telephone;
	<ul style="list-style-type: none"> • IVR;
	<ul style="list-style-type: none"> • fax, and
	<ul style="list-style-type: none"> • walk-in.
327	The Contractor shall provide the capability for the maintenance of Account types designated as, including but not limited to:
	<ul style="list-style-type: none"> • Private (prepaid) – an account established in an individual name;
	<ul style="list-style-type: none"> • Business (prepaid) – an account established in a business name;
	<ul style="list-style-type: none"> • Non-revenue (no payment) - an account established at the Authority's direction for vehicles entitled to toll-free travel;
	<ul style="list-style-type: none"> • Invoice (postpaid) – an account established to allow the customer to receive an invoice periodically (Configurable) for toll usage. The customer may elect to provide Credit Card or ACH information to be charged automatically to pay the invoice;
	<ul style="list-style-type: none"> • Rental car (prepaid) – for Rental Car Service Providers;
	<ul style="list-style-type: none"> • Private Registered Video (prepaid) – an account for individuals who do not want or cannot use transponders;
	<ul style="list-style-type: none"> • Business Registered Video (prepaid) – an account for companies and business that do not want or cannot use transponders and

	<ul style="list-style-type: none"> Unregistered/Violator (postpaid) – an account created using the information provided by the DMV or Registered Owner Lookup Provider. May include more than one vehicle if the ROV Lookup information is an exact match. These may also be referred to as violator accounts.
328	<p>The Contractor shall provide the capability to apply Business Rules and account Requirements for each valid account type, including but not limited to:</p> <ul style="list-style-type: none"> whether prepayment is required; payment options; whether a transponder is required; transponder sale price (by transponder type); replenishment amounts; contact method (mail, email, text, etc.); Insufficient Balance Thresholds (by Credit Card or cash/check payments) and account balance.
329	The Contractor shall provide a Registered account creation process that logically leads an Authorized User through the necessary steps to create an account.
330	The Contractor shall provide the capability to convert an Unregistered account to a Registered account while maintaining the same account number and all account history.
331	The Contractor shall provide the capability to change from one account type and Account Plan to another while maintaining the same account number and all account history.
332	The Contractor shall provide on-screen guidance during the account creation process regarding missing or improperly formatted information. The Authorized User shall not be able to move to the next step until the required information is provided in the appropriate format.
333	The Contractor shall provide the capability, when opening a new account, to automatically identify other account(s) associated with that account name, address or vehicle.
334	The Contractor shall provide the capability to require the account agreement and privacy policy be acknowledged and a record of that acknowledgment saved in the BOS prior to establishing a Registered account or when converting to a Registered account.
335	The Contractor shall provide the capability for the auto-creation of an Unregistered account (should one not already exist for that license plate number) based on an Image-Based Transaction/Trip being eligible for Violation processing and information provided by ROV Lookup.
336	The Contractor shall provide the capability to merge and unmerge accounts. This process shall logically lead the Authorized User through all necessary steps to merge one account into another.

337	The Contractor shall provide the capability for customers to have multiple mail addresses, email addresses, phone numbers and authorized contact information on the account.
338	The Contractor shall provide the capability to identify the source of the information for both unregistered and registered accounts.
339	<p>The Contractor shall provide address adjustment logic to all addresses including those received from DMVs and ROV Look-up Service Providers, Skip Trace Service Providers and customers that includes but is not limited to:</p> <ul style="list-style-type: none"> • the capability, when adding contact information, to assist the Authorized User by requiring zip code be entered first, then providing a pre-populated city and state; • verification, to ensure the address exists; • standardization, to normalize US addresses, such as “Drive” becomes “Dr.” and • selection from all potential address results.
340	The Contractor shall provide the capability to accept or reject the recommended changes provided during address validation or normalization.
341	<p>The Contractor shall provide for a real-time address standardization options when entering addresses, including but not limited to:</p> <ul style="list-style-type: none"> • addresses entered via a customer portal (Self-Service Website and Self-Service Mobile Application (Phase II and optional)) and • addresses entered by an Authorized User.
342	<p>The Contractor shall provide the capability for multiple active addresses and apply them to their designated use, including all prior addresses for all account types, including but not limited to:</p> <ul style="list-style-type: none"> • shipping and • billing.
343	The Contractor shall provide the capability to store address history and make all addresses accessible in the account.
344	<p>The Contractor shall provide the capability to acquire and store multiple addresses, including all prior addresses for all account types, including but not limited to:</p> <ul style="list-style-type: none"> • Customer provided via the Affidavit of Non-Liability • ROV Lookup provided; • Skip Tracing; • National Change of Address (NCOA) and • Collection Agency provided.

345	The Contractor shall provide the capability to add international addresses.
346	The Contractor shall provide the capability to automatically populate (or provide multiple options for selection) the city and state upon entry of the ZIP code (including Canada and Mexico).
347	The Contractor shall provide periodic updates, at least quarterly, to the ZIP code/city/state list, at a minimum, as additional information becomes available.
348	The Contractor shall provide the capability to prevent the account holder's name from being changed unless Approved by an Authorized User.
349	The Contractor shall provide the capability for email address confirmation by the customer by comparing a re-keyed email address. The addition of unmatched entries shall not be allowed.
350	The Contractor shall provide the capability when email addresses are added to an account (both Registered and Unregistered), to perform the email address confirmation process prior to finalizing the entry on the account. For example, an email is sent to the email address provided with a link by which the customer can confirm they have control of the email account. A message shall be displayed indicating the email address will not be added until the confirmation process is complete.
351	The Contractor shall provide the capability to enter and categorize comments on accounts.
352	The Contractor shall provide the capability to insert BOS-generated comments on actions initiated by the BOS.
353	The Contractor shall provide the capability to force Authorized Users to enter comments or have the BOS automatically enter comments on actions processed on an account, including but not limited to:
	<ul style="list-style-type: none"> • disputes;
	<ul style="list-style-type: none"> • dismissals;
	<ul style="list-style-type: none"> • transfer transactions/trips to another account;
	<ul style="list-style-type: none"> • payment of Violation Notices through the account;
	<ul style="list-style-type: none"> • reversals of payments and dismissals;
	<ul style="list-style-type: none"> • waivers;
	<ul style="list-style-type: none"> • corrections and
354	<ul style="list-style-type: none"> • adjustments.
	The Contractor shall provide the capability to set the default PIN as the last 4 digits of the primary phone number, which can be updated in the BOS and IVR.

355	The Contractor shall provide the capability to validate a PIN used for identifying an authorized contact. The PIN shall be masked (not visible to CSRs) such that the CSR will ask the customer for the PIN and the customer will provide the PIN and the CSR will enter that number into the system and the system will validate the PIN. This way the CSR cannot give the customer any hints.
356	The Contractor shall provide the capability to securely email the PIN to the valid primary email address or text message on the account and require that the PIN be subsequently changed.
357	The Contractor shall provide the capability to establish and configure security questions and validate customer response prior to the release of the PIN to the customer. The security questions related to the PIN shall be the same as those used by the customer via the Self-Service Website or CSR assisted password reset
358	The Contractor shall provide the capability for all account types to have multiple communication channels, including but not limited to:
	<ul style="list-style-type: none"> • Phone (day/night);
	<ul style="list-style-type: none"> • cell phone;
	<ul style="list-style-type: none"> • additional phone numbers;
	<ul style="list-style-type: none"> • email;
	<ul style="list-style-type: none"> • additional email addresses;
	<ul style="list-style-type: none"> • fax;
	<ul style="list-style-type: none"> • text messaging and
	<ul style="list-style-type: none"> • mail.
359	The Contractor shall provide the capability to select a preferred communication channel for specific customer communications.
360	The Contractor shall provide the capability to capture opt-in/opt-out preferences and record and store the customer's election for certain items, including but not limited to:
	<ul style="list-style-type: none"> • e-blast;
	<ul style="list-style-type: none"> • text messages;
	<ul style="list-style-type: none"> • statements and
361	<ul style="list-style-type: none"> • marketing / newsletters.
	The Contractor shall provide an account summary (an account overview including name, address, vehicles, license plates, email, phone, payment method, etc.) in a printer-friendly format to be used for, including but not limited to:
	<ul style="list-style-type: none"> • handing to walk-in customers;

	<ul style="list-style-type: none"> • inserting with mail transponder Fulfillment;
	<ul style="list-style-type: none"> • mailing to customers and
	<ul style="list-style-type: none"> • sending to customers via secure email.
362	The Contractor shall provide the capability to log all account changes and provide the capability to view details, including but not limited to:
	<ul style="list-style-type: none"> • prior value;
	<ul style="list-style-type: none"> • the new value;
	<ul style="list-style-type: none"> • user ID;
	<ul style="list-style-type: none"> • date/time and
	<ul style="list-style-type: none"> • user information, such as BOS, Authorized User or customer-originated.

1.4.2. Vehicles, License Plates and Transponders

The BOS shall support comprehensive license plate, vehicle information and transponder management functionality.

363	The Contractor shall provide the capability to manage a drop-down list of vehicle attributes, including but not limited to:
	<ul style="list-style-type: none"> • vehicle manufacturer;
	<ul style="list-style-type: none"> • vehicle make;
	<ul style="list-style-type: none"> • vehicle model;
	<ul style="list-style-type: none"> • vehicle year;
	<ul style="list-style-type: none"> • vehicle color;
	<ul style="list-style-type: none"> • Clean Air decal number (not a drop-down) and
	<ul style="list-style-type: none"> • transponder exception specifying that the make and model requires an externally mounted transponder or special mounting locations for windshield transponders.
364	The Contractor shall provide the capability to add multiple license plates and associated vehicle information to an account.
365	The Contractor shall update and maintain the BOS's list of vehicle manufacturers and models as necessary to keep the list current.
366	The Contractor shall provide the capability to track the time period that a license plate is active on an account. This includes the start date and time and the end date and time. This is called the "Active Period". In most circumstances the customer would add the vehicle to their account with no end date but if it was a rental car it would have an end date/time.

367	The Contractor shall provide the capability to add a license plate number to an account with a back dated start date and time. The allowable back date period shall be configurable.
368	The Contractor shall provide the capability when adding a new license plate number to an account to automatically identify other account(s) associated with that license plate.
369	The Contractor shall provide the capability to identify that the vehicle(s) will be only on the account temporarily based on information provided by the customer, for example, a rental car, loaner from the car dealer or an out of town guest, and to prompt the user to enter a start date and time and an end date and time.
370	The Contractor shall provide the capability for vehicles identified as temporary to be added to the account even if the license plate number is already on a rental car account.
371	The Contractor shall provide the capability to associate information with a license plate, including but not limited to:
	• license plate type;
	• license plate Jurisdiction;
	• vehicle is a clean air vehicle (CAV);
	• vehicles CAV eligibility has expired;
	• clean air vehicle decal number;
	• vehicle has a Disabled Persons license plate;
	• vehicle has a Disable Veterans license plate'
	• vehicle make;
	• vehicle model;
	• vehicle year;
	• vehicle color;
	• transponder;
	• transponder type;
	• transponder friendly name (chosen by the customer);
	• ROV;
	• ROV address;
	• ROV Lookup date and
	• indication the license plate is a temporary license plate.

372	The Contractor shall provide the capability to require or not require a one-to-one relationship between sticker transponders and vehicle in accordance with Business Rules.
373	The Contractor shall provide the ability to make the one-to-one correlation between the sticker transponder and vehicle after a configurable number of transactions/trips with the same transponder and vehicle.
374	The Contractor shall provide the capability, if the one-to-one relationship is required, allow for Authorized Users to override the Requirement as necessary, for example when a transponder is replaced.
375	The Contractor shall provide the capability for a many-to-one relationship between transponder and vehicle based on transponder type, account type and in accordance with Business Rules.
376	The Contractor shall provide the capability to record the history of ROV information associated with each license plate.
377	The Contractor shall provide the capability to search for license plate history and effective date ranges across multiple accounts.
378	The Contractor shall provide the capability to transfer vehicle(s) and associated license plate(s) between accounts while maintaining the associated vehicle transaction/trip history on the original account.
379	The Contractor shall provide the capability to add license plates from all 50 states, DC, U.S. Government, Canada and Mexico.
380	The Contractor shall provide the capability to record transponder delivery method, such as in person via the WIC or by mail.
381	The Contractor shall provide the capability to record transponder issue date and time.
382	The Contractor shall provide the capability to record and associate a payment for every transponder sold.
383	The Contractor shall provide the capability to track customer transponder requests.
384	The Contractor shall provide the capability to age Fulfillment requests and automatically send an Alert when a Fulfillment request has exceeded a Configurable amount of time.
385	The Contractor shall provide the capability for the Authorized User to override the BOS selected transponder mount type, such as windshield or head lamp.
386	The Contractor shall provide the capability for the Authorized User to override the customer selected transponder mount type, such as windshield or head lamp.
387	The Contractor shall provide the capability to read a transponder number (using a barcode reader) and automatically associate it to an account instead of requiring the transponder number to be typed in.
388	The Contractor shall provide the capability for Authorized Users to enter multiple vehicles in a tabular format.

389	The Contractor shall provide the capability to upload a file with vehicle information for the entry of a large number of vehicles.
390	The Contractor shall provide the capability for transferring transponders between accounts while maintaining the associated transponder transaction/trip history on the original account.
391	The Contractor shall provide the capability to monitor for excessive image-based tolls at the account level and at the vehicle or license plate level.

1.4.3. Account Plans

The Authority offers Account Plans which offer benefits to customers who meet the qualifying criteria. These plans may be assigned at the individual transponder, or account level and each may have only one Account Plan assigned to it. These Account Plans are Configured in the BOS and the BOS shall have the flexibility to apply the relevant Account Plan(s) based on the Business Rules.

The Authority also allows for non-revenue passage for qualified vehicles. The Account Plan functionality shall be used to support this program by applying a Configurable percent discount to specific transactions/trips on specific facilities in accordance with the Business Rules.

The Account Plans currently offered by the Authority are listed below. The Contractor should expect that plans may be added, deleted or modified over the course of the Operations and Maintenance Phase.

- Convenience Plan –a one-time lifetime fee (Configurable);
- Standard Plan – monthly fee and discount after a Configurable # of transactions/trips and up to a Configurable maximum per month;
- Special Access Plan – provides free or discounted toll rates for three or more riders per vehicle, motorcycles, eligible CAVs, vehicles with disabled veteran or disabled person license plate, and
- Non-revenue Plan – which provides a Configurable discount (up to 100 percent) one or more of the Authority's facilities.

392	The Contractor shall provide the capability to assign Account Plans at the account level.
393	The Contractor shall provide the capability to assign Account Plans at the transponder level.
394	The Contractor shall provide the capability to assign Account Plans at the license plate level.
395	Prevent the transfer of Account Plans when the transponder or the license plate is moved to another account in accordance with the Business Rules.
396	The Contractor shall provide the capability to enroll customers in Account Plans.
397	The Contractor shall provide the capability for configuring and offering various Account Plans with a combination of features, including but not limited to: <ul style="list-style-type: none"> • percentage discount;