

Regional Customer Service Center Specification

Golden Gate Bridge All Electronic Tolling & Regional Video Tolling



Prepared by



TABLE OF CONTENTS

SECTION I: BUSINESS RULES AND FUNCTIONAL REQUIREMENTS	1
1 Overview	2
2 General Business Rules	2
2.1 Business Rules Applying to All Applicable Sections.....	2
3 FasTrak	4
4 Pay-by-Plate Products.....	4
4.1 Auto-Replenish Pay-by-Plate Account.....	4
4.2 Registered LP Account.....	5
4.2.1 Multiple Account Capability	6
4.2.2 Vehicle Types Allowed.....	6
4.2.3 Transaction Disputes	6
4.2.4 Eligibility Rules.....	6
4.2.5 Trigger	6
4.2.6 LP Account Payment Options	7
4.2.7 Registered Name	7
4.2.8 Maximum License Plates	8
4.2.9 Mail Functions	8
4.2.10 Mail Payment Methods.....	8
4.2.11 RCSC Walk-In Functions.....	8
4.2.12 RCSC Walk-In Payment Methods.....	9
4.2.13 Website Functions.....	9
4.2.14 Website Payment Methods.....	9
4.2.15 Retail Payment Location Functions	9
4.2.16 Phone CSR Functions	9
4.2.17 Phone IVR Functions.....	10
4.2.18 Schedule of Administrative Fees	10
4.2.19 Transaction Fees.....	10
4.2.20 Convertibility	10
4.2.21 Sweeps	11
4.2.22 LP Account Closure Rules	11
4.3 One-Time Payments	12
4.3.1 Trigger	12
4.3.2 Vehicle Types Allowed.....	13
4.3.3 Eligibility Rules.....	13
4.3.4 Opening Pre-Payment	13
4.3.5 Auto-Replenishment	14
4.3.6 Mail Functions / Payment Methods	14
4.3.7 CSC Walk-In Functions.....	14
4.3.8 CSC Walk-In Payment Methods.....	14
4.3.9 Website Functions.....	15
4.3.10 Retail Payment Location Functions	15
4.3.11 Phone CSR Functions.....	15
4.3.12 Phone IVR Functions.....	15
4.3.13 Schedule of Administrative Fees	16
4.3.14 Receipt.....	16

4.3.15 Sweeps	16
4.3.16 Closure Rules	16
4.4 No-Plate Payments	17
4.4.1 Website Functions	17
4.4.2 Retail Payment Location Functions	17
4.4.3 Phone CSR Functions	18
4.4.4 Phone IVR Functions	18
4.4.5 CSC Walk-In Payment Methods	18
4.4.6 Mail Functions and Payment Methods	18
4.4.7 Fees	18
4.4.8 Convertibility	18
4.4.9 Sweeps	18
5 Invoicing	18
5.1 Trigger	18
5.2 Mailing Cycle	19
5.3 Disputes – Transfers of Responsibility	19
5.4 Invoice Data Fields	19
5.5 Maximum License Plates	20
5.6 Mail Functions	20
5.7 Mail Payment Methods	20
5.8 CSC Walk-In Functions	20
5.9 CSC Walk-In Payment Methods	21
5.10 Website Functions	21
5.11 Website Payment Methods	21
5.12 Retail Payment Location Functions	21
5.13 Phone CSR Functions	21
5.14 Phone Payment Methods	21
5.15 Schedule of Administrative Fees	21
5.16 Invoice Fee	22
5.17 Convertibility	22
5.18 Invoice Processing Rules	22
5.18.1 Invoice Generation Rules	22
5.18.2 Nixie Invoice Processing	23
6 General Transaction Processing Rules	24
6.1 Image Processing	24
6.2 Transaction Flow	24
6.3 Payment Processing for One-Time Payment Product with a Cash Balance	25
6.4 DMV Response Processing	25
6.5 Transaction Sweeps	25
6.5.1 Invoice Transactions	26
6.5.2 Violation Transactions	26
6.6 Partial Payments	26
7 Product Conversion	26

8 Violations	27
Attachment I-A: Requirements Summary.....	28
I-A-1: Business Rules Matrix.....	28
I-A-2: Additional General Assumptions for LP/OTP and Invoicing.....	33
I-A-3: Conversion and Sweep Scenarios.....	35
Attachment I-B: Transaction Processing & Account / Payment Flowcharts	37
I-B-1: Transaction Processing Flowchart.....	37
I-B-2: LP/OTP Account Posting Process.....	38
I-B-3: Invoicing Process	39
Attachment I-C: One-Time-Payments, Required Fields & Default Values.....	40
SECTION II: CUSTOMER MATERIALS, IVR, AND WEB	43
1 Customer Materials.....	44
1.1 Overview	44
1.2 Material Revision and Development	44
1.3 Materials by Product.....	46
2 IVR.....	47
2.1 Current LP and FasTrak Account Holders.....	47
2.2 No-Plate Payments.....	48
2.3 One-Time Payments.....	48
2.4 Invoices	48
2.5 Violations	49
2.6 Cash Payment Network.....	49
3 Web	49
3.1 Account Creation	49
3.1.1 FasTrak Accounts	49
3.1.2 LP Accounts.....	50
3.2 Account Login.....	50
3.3 Account Conversion	51
3.3.1 Converting From LP To FasTrak	51
3.4 One-Time Payments.....	51
3.5 Invoices	52
3.5.1 Invoice Login	52
3.5.2 Invoice Payment	53
3.5.3 Customer Initiated Invoice Sweep.....	53
3.5.4 Invoice Transaction Dispute	54
3.6 Violations	54
3.6.1 Violation Login	54
3.6.2 Violation Payment	55
3.6.3 Customer Initiated Violation Sweep.....	55
3.6.4 Violation Transaction Dispute	55

SECTION III: RECONCILIATION AND REPORTING	57
1 General Reconciliation Requirements	58
2 General Reporting Requirements	59
2.1 New Reports for Reconciliation.....	60
2.2 Changes to Existing Reports	61
2.3 Changes to Existing Non Vector Reports.....	61
 SECTION IV: PERFORMANCE STANDARDS	 63
 SECTION V: INTERFACE CONTROL DOCUMENT	 68
1 CSC ICD Changes	69
Attachment V-A: Updated Interface Control Document.....	70
1 Introduction	70
1.1 Definitions	70
1.2 Interface Files Overview	70
2 General file processing requirements.....	71
2.1 File Sanity Checks	73
3 Transaction Interface – GGBD.....	73
4 Tag Status File – GGBD.....	75
4.1 File type	75
4.2 File name	75
4.3 File use.....	75
4.4 Processing requirements.....	77
4.5 Sample files	78
5 ETC Transaction File – GGBD.....	79
5.1 File type	79
5.2 File name	79
5.3 File use.....	79
5.4 File layout	79
5.5 Processing requirements.....	82
5.6 Sample file	83
6 ETC Response File – GGBD	83
6.1 File type	83
6.2 File name	83
6.3 File use.....	83
6.4 File layout	83
6.5 Processing requirements.....	85
6.6 CSC Reason Codes (ETC Transactions).....	86

6.7 Posting/reconciliation scenarios for .res file.....	88
6.8 Sample File	89
7 IBTs Transaction File - GGBD.....	89
7.1 File type	89
7.2 File name	89
7.3 File use.....	89
7.4 File layout	90
7.5 Processing requirements.....	92
7.6 Sample File	93
8 IBT Reconciliation File – GGBD.....	93
8.1 File type	93
8.2 File name	93
8.3 File use.....	94
8.4 File layout	94
8.5 Processing requirements.....	96
8.6 CSC Reason Codes (IBTs)	97
8.7 Posting/reconciliation scenarios for .vres file	98
8.8 Sample File	99
9 IBT Image Data File	99
9.1 File type	99
9.2 File name	99
9.3 File use.....	100
9.4 File layout	100
9.5 Processing requirements.....	101
9.6 Sample File	102
10 Acknowledgement File.....	102
10.1 File type	102
10.2 File name	102
10.3 File use.....	102
10.4 File layout	103
10.5 Processing requirements.....	103
10.6 ACK File Processing.....	104
11 Processing rules	106
11.1 Tag Files	106
11.2 GGB ETC and VIO Recon files.....	106
11.3 VDF Files	107
V-A-1: File Flow	109
V-A-2: IP Addresses.....	110

SECTION VI: CASH PAYMENT NETWORK REQUIREMENTS	111
1 Overview	112
2 General Requirements	112
2.1 RCSC and Vendor Interface	112
2.2 Retail Locations	113
2.3 Retail Locator.....	113
2.4 Disputes, Refunds, and Voiding Transactions	114
2.5 Payment Products	114
2.6 Minimum and Maximum Payment Amounts.....	114
2.7 Customer Validation.....	114
2.8 Check Balance and Receipts	115
2.9 Funds Transfer and Reconciliation	115
3 Customer Service Requirements	116
4 Reports Requirements	116
5 User Interface Requirements.....	117
5.1 General User Interface Requirements.....	117
5.2 Customer Inquiries	118
6 Marketing and Communications	118
7 Quality Assurance and Quality Control.....	118
8 Security and Standards	119
9 Merchant Fees	119

SECTION I: BUSINESS RULES AND FUNCTIONAL REQUIREMENTS

1 Overview

Introducing All Electronic Tolling (AET) on the Golden Gate Bridge, and removing cash as a payment option in the lanes, will necessitate changes in account structure and transaction processing at the Customer Service Center. AET business rules and functional requirements are specified in this document.

The following products will be available to AET customers:

1. FasTrak Transponder Account
2. Pay-by-Plate:
 - a. Auto-Replenish Pay-by-Plate Account (existing, under FasTrak business rules; not available to general public; BATA/GGB approval required)
 - b. License Plate (LP) Account
 - c. One-Time Payment
 - d. No-Plate Payment

Invoicing

Concurrent with the GGB AET implementation, BATA intends to support the Pay-by-Plate products (initially for bridges only—not for use on Express Lanes). BATA does not intend to offer Invoicing on BATA bridges at this time. However, it may be implemented at a later date at one or more plazas.

2 General Business Rules

2.1 Business Rules Applying to All Applicable Sections

In addition to the product-specific business rules described in the sections below, the following rules are general in nature and are not unique to any particular product unless specified.

- a) For all automatic replenishments and automatic payments made via “credit card”, this shall also include debit cards with the Visa/MasterCard logo that do not require a PIN for the transaction. Additionally, for auto-replenishment and auto-payment transactions, a primary credit card is required, and a secondary credit card shall be optional.
- b) For all automatic replenishments, automatic payments, and single payment transactions, “credit card” also includes gift cards with internationally known logos such as Visa, MasterCard, and American Express.
- c) Unless specifically addressed below, references to payments by “check” include personal, cashier’s, bank-certified (including money order), and nationally recognized gift or traveler’s checks such as those issued by Visa and American Express.

- d) Credit card payments shall be accepted via the IVR system. This process shall only require real-time credit card validation and payment authorization where it would be required for document payment and account management functions prior to AET (and after the current IVR enhancement)—that is, if real-time validation/authorization is performed for violation payments, this should be similarly done for invoice payments; and where making a one-time payment to an existing FasTrak account, or associating or updating a credit card on a FasTrak account, includes real-time validation/authorization, this shall similarly apply for LP accounts under AET. There is no requirement that the IVR accept alphanumeric entries (e.g. license plate numbers). The IVR shall support invoice payments, violation notice payments, and account replenishments (that is, one-time payments made by account holders to accounts).
- e) For applicable products as described below, the CSR-Phone function shall allow for credit card payments over the phone. This process shall also entail real-time credit card validation and payment authorization only insofar as this is done for violation payments and account management functions [see note in d), above]. The CSR shall obtain appropriate information to support compliance with PCI and other applicable standards for all payment products.
- f) When receiving payments of any type (except where business rules prohibit—e.g. on the web), the RCSC shall be prepared to handle partial payments, overpayments, and payments unaccompanied by supporting product or transaction information. Payments that cannot be matched shall be documented and secured.
- g) Payment products shall support the FasTrak tagged and license plate (initially current cash) toll rates. The RCSC does not calculate the toll rates. [See the [Interface Control Document](#) section of this document.]
- h) For all fees discussed throughout this document (e.g. invoice, invoice escalation, statement, etc.), the fees shall be configurable in terms of how they are calculated, as well as the frequency with which and conditions under which they are assessed. There shall be the ability to set any or all fees to \$0.00. Specific fee applications are discussed in the individual sub-sections below.
- i) The District will enhance customer convenience by introducing alternative ways for customers to make toll payments and replenish FasTrak accounts. In addition, customers shall continue to be allowed to open an account over the phone, at the RCSC walk-in center, on the Web, or through the mail.
- j) The RCSC shall be responsible to establish a cash payment network (Retail Walk-In locations) in accordance with the detailed specifications set forth in the [Cash Payment Network](#) section of this document. Customers shall not be permitted to create accounts through the Retail Walk-In locations during the initial phase of the project. Whether

customers shall be permitted to make a One-Time Payment via the Retail Walk-In locations is TBD; however, the One-Time Payment is not an 'account' from the customer perspective.

- k) All receipts shall contain a unique 'reference' number, a license plate number or account number, and at most a *partial* credit card number (if for a credit card transaction).

3 FasTrak

The business rules and functional requirements for FasTrak tagged accounts remain unchanged and are not specified in this document.

The FasTrak plate-only account type functional requirements remain unchanged; however, under AET the plate-only account type is included in the category of Pay-By-Plate and will be charged the license plate toll rate, currently \$6.00.

For the Golden Gate Bridge, only FasTrak tagged accounts will receive the discounted FasTrak toll rate.

4 Pay-by-Plate Products

The CSC shall support various Pay-by-Plate options (License Plate Accounts, One-Time Payments) on a facility basis.

Express Lanes will not offer any of the Pay-by-Plate options on their facilities at this time.

BATA intends to offer the Pay-by-Plate products for toll payment on state-owned bridges. Customers with transactions posting to Pay-by-Plate products will be charged the appropriate BATA toll rate plus a \$0.50 per toll transaction fee.

All Pay-by-Plate products will initially be tolled at the current cash rate of \$6.00 on the Golden Gate Bridge.

If an account or payment for a vehicle is not established within the appropriate window of time after a transaction (the "grace period"—more discussion below), that transaction will be invoiced. Any transaction for a vehicle with no license plate will never be invoiced.

4.1 Auto-Replenish Pay-by-Plate Account

Since a new category of accounts that relies solely on a license plate for tolling is being developed for AET, the plate-only account previously offered as a subset of FasTrak shall be considered a Pay-by-Plate account under AET. At AET inception, the toll rate for the auto-

replenish Pay-by-Plate account will be the current cash rate of \$6.00. This account type shall follow all business and processing rules currently in place for FasTrak, including the rules for calculating replenishment thresholds and amounts. The auto-replenish Pay-by-Plate account shall also participate in the QEVAL process.

The auto-replenish Pay-by-Plate account shall be used for rental cars and fleets only, and establishing any new account of this type shall require BATA/GGB approval.

This account type will be valid for toll payment for both the Golden Gate Bridge and BATA; it is not valid for toll payment on the Express Lanes at this time.

4.2 Registered LP Account

The registered LP account is a plate-based, customer-initiated account that accepts:

- A credit card on file to be charged as transactions are recognized in the system
AND/OR
- Cash, check, or credit card to establish a pre-paid balance

There is no auto-replenishment, and LP accounts do not participate in the QEVAL process.

All LP account holders shall agree to a set of terms and conditions. All LP account holders must provide name, mailing address, license plate number, license plate state, license plate effective date, and optional phone number. Customers also have the option of providing an account closure date; no transactions occurring after the closure date shall post to the account.

The LP account is intended to handle all customer communications, including account statements, via email. Customers shall be strongly encouraged to provide an email address; however, it is not technically required. The RCSC shall have the ability to send account statements only via ground mail for LP account holders. Customers who do not provide an email address may hence choose to receive statements via ground mail; however, all other correspondence (e.g. CC expiration, CC decline, account suspension) shall be forfeited by the customer. This must be made clear both on the Web and via the CSR script at account creation.

There shall be a configurable 'grace period' after a toll transaction occurs and during which customers can create a LP account and avoid receiving an invoice (for GGB transactions only) or violation notice (for BATA transactions—as BATA will not support invoicing). This grace period will initially be publicized as 2 days, although the system shall allow a 3-day (configurable) grace period for opening an account (where toll transaction date = Day 0 and the customer has until 23:59:59 on Day 3 to take action). Because the effective date defaults to the current date during the account creation process, if the customer creates an account on any day after the first transaction date, the customer must manually back date the license plate effective date in order to take advantage of the grace period. So all venues for account creation (e.g. Web, paper applications, CSR-Phone) shall indicate this clearly to the customer.

The LP account is debited (pre-paid balance reduced or credit card charged) on the day that a transaction is recognized in the system. If an account carries a pre-paid balance sufficient for the full toll amount when the transaction is recognized, the balance shall be reduced by the toll amount. Otherwise, if the account has a valid credit card on file, then the credit card will be charged the full toll amount. If the account has neither sufficient balance for the full toll amount nor a valid credit card on file, then the transaction shall go to invoice processing. If the account (or another account or payment) is not eligible for posting at the conclusion of the grace period, an invoice will be generated for the transaction.

Additional business rules details are include in [Attachment I-A](#).

4.2.1 Multiple Account Capability

The RCSC shall put in place appropriate rules and controls to handle multiple active LP accounts with the same license plate. For example, consecutive owners of a vehicle might independently create LP accounts, or a customer in a rental car might open a LP account temporarily to bypass fees associated with using the rental agreements in place. In such cases, transactions shall post to the appropriate account based on existing latest effective date (LED) and account hierarchy processing rules, as described below.

The account to which a toll should post shall be determined based on the latest effective date; that is, a transaction should post to the account on which the plate is listed with the most recent effective date that is also no greater than the transaction date. If the home account with the latest effective date for the plate is invalid, or if there is none, then the RCSC shall attempt to post to CTOC and rental car agency FasTrak accounts before going to the invoicing process.

4.2.2 Vehicle Types Allowed

LP accounts shall have no vehicle type limitations.

4.2.3 Transaction Disputes

For transaction disputes, the RCSC shall follow processes in place for handling FasTrak disputes.

4.2.4 Eligibility Rules

LP Accounts shall not be eligible for any of the following:

- CTOC Interoperability
- Parking (and other non-toll uses)
- Carpool Discount
- Express Lanes (at this time)

4.2.5 Trigger

Customers shall have the ability to open LP accounts via the following methods:

- Online
- By Phone
- Walk-In RCSC
- Mail

LP account opening shall include the following:

- Customer must provide name, mailing address, email address, license plate number, license plate effective date, and license plate state.
- Customer may optionally provide phone number(s), credit card information, account closure date, and license plate effective date. If no license plate effective date is entered, system defaults to current date.
- System returns account number.
- Customer chooses or is assigned a PIN, username, and password. (The account number/PIN are required to access the account via the IVR; the username/password are required to access the account via the Web.)

When opening a LP account via phone with a CSR, the CSR shall inform the customer that participation in the LP program obligates agreement to the terms and conditions that will be emailed. If the customer elects not to provide an email address, the CSR shall inform the customer that this constitutes opting out of all customer correspondence (other than statements, for which the customer may request ground mail deliver). If opening online, the customer shall be required to agree to terms and conditions.

Customers wishing to open a LP account with no balance and without placing a credit card on file shall be informed that the account will be opened in ‘suspended’ status; and in order to make the account valid, the customer must either make a payment to the account or place a credit card on file. Customers shall be informed that if the account is not made valid within 2 days of the first toll transaction, an invoice will be generated (in accordance with the configurable grace period concept), as transactions cannot post to suspended accounts.

4.2.6 LP Account Payment Options

LP accounts support the following payment options:

- Cash, check, or credit card to establish or increase the account balance on the Web, through the mail, via IVR, or at the RCSC
- Cash at a Retail Walk-In location after account establishment only

4.2.7 Registered Name

The LP Account shall contain the following information:

- Customer name
- Address
- License plate state, number, and effective date (at least one plate shall be required)
- Email address (technically optional but very strongly encouraged)

- Optional credit card information (mandatory if credit card used)
- Optional phone number(s)
- Optional account closure date
- Optional secondary credit card

4.2.8 Maximum License Plates

The maximum number of license plates that can be associated with a LP account shall be configurable, but initially set to 5 plates per account.

4.2.9 Mail Functions

The RCSC shall support the following mail functions for LP accounts:

- Open a new account with a properly completed application
- Update account information
- Add and update credit card information
- Convert to a Private or Business FasTrak account (from Private or Business account, respectively, only)
- Make payments by check
- Update vehicle information

Additionally, upon providing evidentiary material, the customer may perform a TOR via mail, per existing requirements.

4.2.10 Mail Payment Methods

The mail payment methods allowed for LP accounts shall be:

- Check or money order
- Although not an advertised or approved method, the RCSC shall need the ability to handle cash payments received via mail

4.2.11 RCSC Walk-In Functions

The LP account RCSC Walk-in functions shall be as follows:

- Open account
- Update account information
- Add and update credit card information
- Convert to a Private or Business FasTrak account (from Private or Business account, respectively, only)
- Make payments via cash, check, or credit card
- Update vehicle information
- Provide instructions for securely resetting PIN/password
- Provide instructions for retrieving website username

4.2.12 RCSC Walk-In Payment Methods

The walk-in payment methods allowed for LP accounts shall be:

- Cash
- Check or money order
- Credit card

4.2.13 Website Functions

The LP Account online (web) functions shall be as follows:

- Open account
- Update account information
- Add and update credit card information
- Convert to a Private or Business FasTrak account (from Private or Business account, respectively, only)
- Update vehicle information
- Securely reset PIN/password
- Securely retrieve username

4.2.14 Website Payment Methods

The Website payment methods allowed for LP accounts shall be:

- Credit card

4.2.15 Retail Payment Location Functions

The retail walk-in centers shall support cash payments to existing LP accounts only. Retail walk-in centers shall not support establishment of new LP accounts. Although individual retailers may choose to accept additional forms of payment (e.g. credit card, personal check), these are not intended to be part of the retail payment program. See the [Cash Payment Network](#) section of this document.

4.2.16 Phone CSR Functions

The LP Account phone CSR functions shall be as follows:

- Open account
- Update account information
- Add and update credit card information
- Convert to a Private or Business FasTrak account (from Private or Business account, respectively, only)
- Update plates
- Receive instructions for securely resetting PIN/password
- Receive instructions for retrieving website username

The customer must present the necessary credentials to the CSR to perform all functions against their account.

4.2.17 Phone IVR Functions

LP account customers can access the phone IVR using their account number and PIN and shall be allowed the following phone IVR functions:

- Hear current account balance
- Change PIN
- Add/update credit card
- Make payments using a credit card

4.2.18 Schedule of Administrative Fees

The schedule of administrative fees for the LP account shall include:

- Returned check fee: \$25.00

The above dollar amount shall be configurable and shall not require programming changes to modify.

4.2.19 Transaction Fees

The following transaction fees are to be configurable (including \$0.00) and shall not require programming changes to modify:

- There shall be a transaction fee for all individual toll fares associated with a LP Account. (This provides flexibility in fare values by setting the surcharge at the individual toll transaction level.)
- The RCSC shall allow for the transaction fee to be either a ‘flat’ per-transaction fee or a fee that represents a percentage of the individual transaction (toll) value.
- Transaction fees shall be facility-specific, separately configurable for BATA and GGB.

4.2.20 Convertibility

It is expected that some customers will decide to convert from a LP account to a FasTrak account.

- The conversion functionality shall allow the customer to retain transaction history and account and vehicle information.
- Conversion to a FasTrak account—whether on the Web, over the phone, or in person at the RCSC—shall require that the customer (or a CSR on behalf of the customer) submit a request for a new transponder.
- For customers to initiate a conversion, the RCSC shall support four methods:
 - a. Phone with a CSR
 - b. On the Web
 - c. At the RCSC walk-in

d. In writing by mail

In order to convert a LP account to a FasTrak type account, the customer shall be required to provide LP account ownership credentials—that is, an account number and PIN, toll tag number and PIN, or username and password for the account. All associated transactions license plate information, and name/address information on the LP account will remain on the account after it has changed type.

Customers converting to a credit card backed FasTrak account must also allow the credit card on file, if there is one, or a new card provided at conversion to be associated with the FasTrak account for automatic replenishment. Any balance on the LP account will be carried over to the FasTrak balance; and if there is not sufficient balance to achieve the minimum FasTrak account balance requirements, the credit card must be charged accordingly.

LP customers with a CC on file and wishing to convert to a cash-backed FasTrak account must either call or visit the RCSC to remove the CC from the account and then convert. In any case, if the balance on the LP account is not sufficient to achieve the minimum cash FasTrak account balance, the customer must make a payment in order to convert.

4.2.21 Sweeps

The RCSC shall attempt to post (sweep) invoice transactions to a valid LP account prior to invoice generation and also prior to violation noticing. Additionally, the RCSC shall attempt to sweep open violation transactions to a valid LP account prior to escalation to DMV registration hold or collections.

The RCSC shall allow for the ability to waive any and all fees and/or surcharges associated with invoiced tolls when sweeping them to a LP account.

For invoiced transactions to be swept to a new LP account, the LP account must either have a valid credit card on file or sufficient balance to pay all tolls on the invoice. No partial invoice sweeps shall be allowed.

When managing an account on the Web, customers have the option of ‘back-dating’ the license plate effective date up to 90 days prior to the current date. CSRs always have this ability for all accounts. Back-dating the effective date will automatically sweep open invoice or violation transactions not yet on DMV hold to the LP account, provided that the LP account has either sufficient balance or a valid credit card on file to pay all tolls on one or more invoice(s) or notice(s). No partial sweeps of any single document shall be allowed.

4.2.22 LP Account Closure Rules

LP accounts are automatically closed by the system after 12 months (configurable) of inactivity, after 30 days (configurable) in suspended status, or when a customer-specified account closure

date is reached. Note that a LP account shall be suspended immediately if the credit card on file declines at any time, or if there is neither a balance nor a credit card on file for the account.

The above processing rules shall not be mutually exclusive—that is, the system shall close the account as soon as any one of these criteria for closure is met. Transactions occurring after an account has been closed for any reason shall not post to that account; rather they shall post to a valid account with a more recent latest effective date (if one exists) or go to the invoicing process (for GGB transactions) or the violation noticing process (for BATA transactions).

Invoices shall be generated for any transactions occurring while an account is in suspended status (so long as there is not a more recent, valid account). For LP accounts carrying a balance upon account closure, a refund shall be issued automatically and following current rules for FasTrak account closure refunds.

4.3 One-Time Payments

The One-Time Payment product allows non-tagged customers to pay for a toll (or tolls) in advance of or subsequent to travel. Although One-Time Payments will exist as LP accounts in Vector—the One-Time Payment product, from the customer perspective, is not an “account” and is temporary in nature. That is, while the One-Time Payment customer is not creating or managing an account, the requisite functionality is a subset of that which is needed for a LP account.

To initiate a One-Time Payment, the customer provides the vehicle’s license plate number, license plate state, and either a cash payment to establish a toll balance or credit card information to keep on file and charge as trips are recognized.

Note that the customer is not required to provide name or address information. For these and other Vector-required fields, the system or a CSR shall populate default values when creating a One-Time Payment ‘account’. [See [Attachment I-C](#) for details.]

One-Time Payments are valid for use for a maximum of 30 days. Cash backed One-Time Payments are only good until the balance is depleted; when the balance reaches \$0, as with a LP account, the One-Time Payment ‘account’ is suspended and transactions can no longer post. Credit card backed One-Time Payments are good either until 30 days have passed or until a customer-specified closure date is reached, whichever occurs first. (I.e. a customer-specified closure date can be no greater than 30 days from product establishment.)

4.3.1 Trigger

The methods of initiating a One-Time Payment are at the RCSC walk-in center, at a retail walk-in location (cash payment network) [TBD], over the phone with a CSR, on the website, or by mail.

The window of opportunity to make a One-Time Payment is 30 days prior to travel or within the configurable grace period (initially set to a 2-day publicized period, with a 3-day internal processing period) subsequent to travel (to avoid receiving an invoice). After a One-Time Payment is open for 30 days, the system closes the One-Time Payment 'account', whether or not the system has recognized any transactions for the vehicle.

If there is a cash balance remaining when the One-Time Payment is closed the funds will likely be transferred to a holding account for regular deposit to the agency. [This process is TBD during the design phase.]

There is no registered name requirement for the One-Time Payment. Only the license plate number, state, and effective date (system defaults to current date) are required. If the customer wishes to associate a credit card with the product, then the credit card information is required; however, a One-Time Payment can be established with no associated credit card or cash balance—other than at the RCSC Walk-In, where one or the other shall be required. In such a case, the customer must be informed that the One-Time Payment will not be valid until a CC or cash balance are applied.

One-Time Payments shall be initiated for a single license plate only. Although there may be more than one toll transaction for a unique license plate supported by a single One-Time Payment transaction, each unique license plate must have a separate One-Time Payment.

4.3.2 Vehicle Types Allowed

One-Time Payments shall be open to all vehicle types and classes.

4.3.3 Eligibility Rules

One-Time Payments shall not be eligible for the following:

- CTOC Interoperability
- Parking and other non-toll uses
- Carpool discounts
- BATA bridges (at this time)
- Express Lanes (at this time)

4.3.4 Opening Pre-Payment

For customers making One-Time Payments in cash, the minimum payment amount shall be equal to the 2-axle LP toll rate; and the maximum payment shall be equal to 3 (configurable, both at RCSC and at CPN locations) crossings at the 2-axle LP toll rate.

For customer providing a credit card to establish the One-Time Payment product, there shall be no minimum or maximum payments or transaction limits. The credit card provided shall be charged for each transaction recognized by the system and occurring before the closure date.

4.3.5 Auto-Replenishment

The One-Time Payment product shall not allow for auto-replenishment, shall not have associated replenishment amounts or thresholds, and shall not participate in the QEVAL process.

4.3.6 Mail Functions / Payment Methods

There are no standard mail functions that support One-Time Payments, and customer materials shall reiterate this rule. Although not an advertised or approved method, the RCSC will need the ability to handle mailed One-Time Payments made by cash or check.

The RCSC shall be responsible for receipt of, and responses to, One-Time Payment customer correspondence, some of which may include One-Time Payments received by mail in the form of either cash or check.

4.3.7 CSC Walk-In Functions

Walk-in functions allowed for One-Time Payments shall only include the ability to initiate the One-Time Payment product by providing a cash payment or credit card information, along with the vehicle license plate and state.

The customer may provide the vehicle class and anticipated number of trips in order to receive toll rate information from a CSR; this information shall not be stored in the system and is not required to be enforced by the CSR.

A One-Time Payment transaction may be conducted prior to or subsequent to the toll transactions(s). If the system finds the same license plate on another valid product, tolls shall be posted to the product with the latest effective date for the plate.

Upon completion of a successful One-Time Payment transaction, the CSR shall provide the customer a receipt with a unique 'confirmation' number showing the license plate state and number, payment amount or partial credit card number applied (if either applies), and the current date.

The customer shall be notified of all restrictions related to One-Time Payments, including the restriction of 30 days to travel and that One-Time Payments shall be non-refundable and non-transferrable.

4.3.8 CSC Walk-In Payment Methods

The walk-in payment methods allowed for One-Time Payments shall be:

- Cash
- Money order

Personal checks shall not be accepted for One-Time Payments, as there is no account against which to process an NSF.

Customers providing a credit card for the One-Time Payment shall be informed that the card will not be charged until after trips are taken. Customers shall also be informed that, unless otherwise specified, the credit card will be charged for all trips occurring within 30 days of the product establishment.

4.3.9 Website Functions

The customer must access the website and select the “One-Time Payment” option to initiate a payment transaction. Accessing the One-Time Payment portion of the website shall not require the customer to provide access credentials such as account number or PIN.

The website shall inform the customer that the credit card provided will be charged only after trips are taken and that the One-Time Payment is good for a maximum of 30 days. The website shall allow the customer to select a date prior to 30 days from the current date as the closure date for the One-Time Payment in order to restrict the timeframe for which they authorize charges to the credit card.

The website shall provide a ‘print confirmation’ capability, as well as provide the customer an optional e-mail confirmation sent to an e-mail address specified by the customer (optional).

4.3.10 Retail Payment Location Functions

it is anticipated that the retail walk-in centers will support One-Time Payments via cash. [TBD] See the [Cash Payment Network](#) section of this document.

4.3.11 Phone CSR Functions

The One-Time Payment product shall be supported by phone via a CSR, with or without an associated credit card. Customers opening the account without a credit card will be informed that the One-Time Payment will not be valid until a CC or cash balance is applied.

The customer shall be notified of all restrictions related to One-Time Payments, including the restriction of 30 days to travel and that the associated credit card, if supplied, will only be charged after trips are taken.

4.3.12 Phone IVR Functions

Other than static product information, there shall be no phone IVR functions that support One-Time Payments; however, the IVR shall facilitate transferring customers to a CSR to make a One-Time Payment.

4.3.13 Schedule of Administrative Fees

There shall be no administrative fees associated with One-Time Payments. Personal checks shall not be an accepted form of payment for One-Time Payments.

4.3.14 Receipt

Upon completion of each One-Time Payment transaction, the customer shall be provided a confirmation/receipt with a unique 'confirmation' number showing the total amount paid or partial credit card number associated (if either applies), the license plate state and number, and the current date.

If the One-Time Payment is performed at the Walk-in RCSC, a print-out of this information shall be provided to the customer. Convertibility

Customers shall not be permitted to convert One-Time Payments on the Web, as there is no way for customers to access or manage One-Time Payments. However, customers shall be able to convert a One-Time Payment to a LP or FasTrak account via a CSR and on an exception basis only.

4.3.15 Sweeps

The One-Time Payment product participates in both the invoice sweep process and the violation sweep process. This means that transactions queued for invoicing could be paid by a One-Time Payment prior to or after invoice generation. Although customers should be restricted to back-dating the plate a maximum of the length of the grace period, CSRs will be able to back-date the plate up to 90 days (configurable) prior to the current date—this is in line with LP account back-dating rules.

If the One-Time Payment amount is sufficient to pay all open tolls, no invoicing is necessary. Invoicing occurs only if the One-Time Payment is not sufficient to pay any open full toll at the close of the grace period for that toll transaction.

4.3.16 Closure Rules

One-Time Payments are not accounts from the customer perspective. However, from the system perspective, the account shall be suspended once the pre-payment has been depleted; and the account shall be closed either after 30 days or at the customer-specified account closure date (whichever occurs first).

If at any time the One-Time Payment balance is not sufficient to pay a full toll, or the credit card on file declines, the full toll amount shall go to the invoicing process. One-Time Payment balances less than a single full toll can be transferred to an LP or FasTrak account (via CSR intervention and on an exception basis only) but cannot be directly refunded.

One-Time Payment products with balances are closed after 30 days (configurable), whether or not the system has recognized any transaction(s). That is, if no travel occurs within 30 days of the One-Time Payment—or if 30 days pass with balance remaining on the payment—the One-Time Payment is closed.

No refunds for One-Time Payments shall be issued at product closure. Rather, the funds will likely be transferred to a holding account for regular deposit to the agency. [This process is TBD during the design phase.]

4.4 No-Plate Payments

In California it is legal to drive a new vehicle for a certain period of time without a license plate. Prior to AET, customers without a license plate either paid by cash in the lane or violated. Under AET, a method shall be provided for No-Plate customers to pay tolls.

There are no time limits and no payment thresholds (other than on the Web, see below) associated with the No-Plate product; however, customers shall be informed of the toll amount due for an indicated vehicle class and number of trips, if requested.

Customers shall be alerted that payments of the No-Plate type are not refundable.

Payments can be made by cash, check, or credit card.

4.4.1 Website Functions

Website functions shall only include the ability to initiate a No-Plate Payment.

The customer must access the website and select the “One-Time Payment” option to initiate a payment transaction. Accessing the “One-Time Payment” portion of the website shall not require the customer to provide access credentials such as account number or PIN.

Customers shall be instructed how to proceed if they are paying for a vehicle that does not yet have a plate. Customers shall be alerted that payments of the No-Plate type are not refundable.

The website shall provide a ‘print receipt’ capability, as well as provide the customer an optional e-mail confirmation sent to an e-mail address specified by the customer (optional).

4.4.2 Retail Payment Location Functions

The retail walk-in centers shall support No Plate Payments via cash. See the [Cash Payment Network](#) section of this document.

4.4.3 Phone CSR Functions

The No-Plate Payment shall be supported by phone via a CSR.

4.4.4 Phone IVR Functions

The No-Plate Payment product shall not be supported by the phone IVR; however, the IVR shall facilitate transferring customers to a CSR to make a No-Plate Payment.

4.4.5 CSC Walk-In Payment Methods

The walk-in payment methods allowed for No-Plate Payments shall be:

- Cash
- Check or money order
- Credit card

4.4.6 Mail Functions and Payment Methods

The RCSC shall be responsible for receipt of, and responses to, No-Plate Payment customer correspondence, some of which may include No-Plate Payments received by mail in the form of cash or check.

4.4.7 Fees

There shall be no fees associated with the No-Plate Payment product.

4.4.8 Convertibility

The No-Plate Payment product shall not be convertible to any other product type.

4.4.9 Sweeps

The No-Plate Payment product shall not participate in the sweep process.

5 Invoicing

Just as for the Pay-by-Plate products, the CSC shall support the Invoicing product on a facility basis. BATA will not offer Invoicing on any of their facilities at this time.

An invoice is opened by the system when there has been a successful response from the DMV plate look-up and there is no valid payment option available in the system at the conclusion of the configurable grace period.

5.1 Trigger

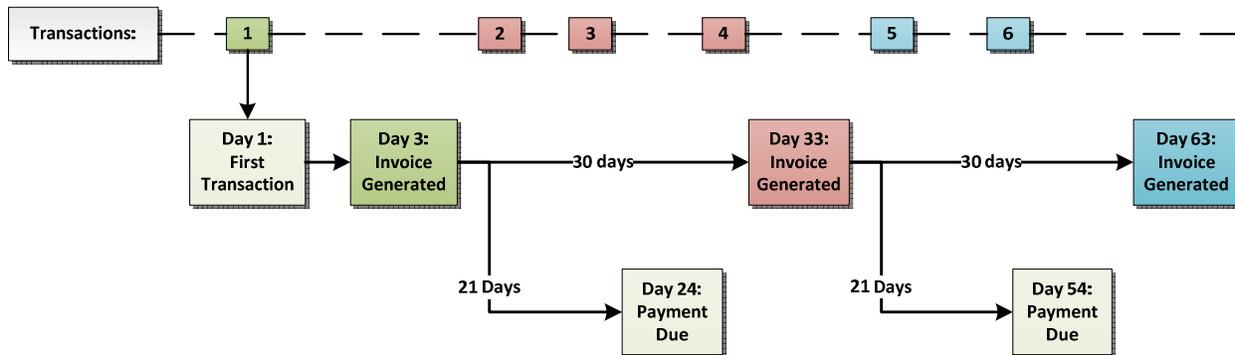
Once a successful DMV response has been received for an image-based transaction (i.e. no valid tag read in the land) and the grace period following a transaction has passed, the system looks for a valid payment method and finds none. The system marks the transaction as an invoice transaction by associating it with a new or existing invoice account.

Because each invoice account is defined by a name, address, and license plate combination, a DMV return of a different name or address for a license plate associated with an existing invoice product will result in the creation of a new invoice product.

Transactions marked as invoice transactions shall be immediately available for viewing in the system. This means that CSRs are able to view such transactions in Vector; it is understood that customers will have no means for viewing invoice transactions for which no invoice has yet been generated.

5.2 Mailing Cycle

If this is the first invoiced transaction for the invoice product, the invoice is generated as soon as possible (configurable) after grace period (initially 3 days—configurable) has passed. Subsequent invoices are sent every 30 days (on the anniversary date of first invoice), provided there are transactions to be invoiced. If no transactions are recognized in the system during any invoice cycle, no invoice shall be generated for that cycle. Subsequent invoices shall continue to follow the initial ‘anniversary’ date cycle. See sample invoice cycle graphic below.



Invoices are assigned an invoice number, invoice date, and invoice due date. Payment is due 21 days (configurable) from the invoice date.

5.3 Disputes – Transfers of Responsibility

For Transfers of Responsibility (TOR), the RCSC shall follow the current TOR protocol for violations.

5.4 Invoice Data Fields

The Invoice shall be mailed to customers and contain at a minimum the following information:

- Customer name (as returned from the DMV)

- Address (as returned from the DMV)
- License plate state and number
- Transaction(s) date(s) and time(s)
- Transaction(s) amount(s)
- Facility
- Lane(s)
- Total Due
- Invoice Date
- Due Date
- License plate image
- FAQs regarding account and payment options
- Description of escalation process
- CSC contact information
- Remittance portion for return to RCSC

5.5 Maximum License Plates

There can be only one license plate number per invoice. All transactions on an invoice must match the unique license plate/name/address combination returned from the DMV.

5.6 Mail Functions

The RCSC shall support the following mail functions for Invoices:

- Conversion to a FasTrak or LP account
- Ability to make payments

Although partial payments are not encouraged, the RCSC shall be able to process partial invoice payments in the form of mailed checks for less than the invoice amount due.

Additionally, upon providing evidentiary material, the customer may perform a TOR via mail.

5.7 Mail Payment Methods

The mail payment methods allowed for Invoices shall be:

- Check or money order
- Credit card
- Although not an advertised or approved method, the RCSC shall need the ability to handle cash payments received via mail.

5.8 CSC Walk-In Functions

The Walk-In functions for Invoices shall be as follows:

- Conversion to a FasTrak or LP account

- Ability to make payments

5.9 CSC Walk-In Payment Methods

The walk-in payment methods allowed for Invoices shall be:

- Cash
- Check or money order
- Credit card

5.10 Website Functions

The online functions for Invoices shall be as follows:

- Convert to a FasTrak or LP Account
- Make payment—in full only
- View transactions, including facility, lane, date, time, and toll amount
- View plate images
- Dispute the invoice
- Provide an existing FasTrak or LP Account number for sweeping

5.11 Website Payment Methods

The online payment methods allowed for Invoices shall be:

- Credit card

5.12 Retail Payment Location Functions

The retail walk-in centers shall support Invoice payments in cash. See the [Cash Payment Network](#) section of this document.

5.13 Phone CSR Functions

The Phone CSR functions for Invoices shall include:

- Conversion to a FasTrak or LP account
- Ability to make payments—in part or in full
- Ability for customer to provide FasTrak or LP account credentials for sweeping

5.14 Phone Payment Methods

The phone payment methods allowed for Invoices shall be:

- Credit Card

5.15 Schedule of Administrative Fees

The schedule of administrative fees for Invoices shall include:

- Returned check fee: \$25.00

- Duplicate copy of invoice: \$1.00

The above dollar amounts shall be configurable and shall not require programming changes to modify.

5.16 Invoice Fee

An Invoice fee shall be established and initially set at \$0.00. This fee shall be assessed once per invoice generated, regardless of the number of toll transactions on the invoice.

The RCSC shall allow the Invoice fee to be either a flat fee or a fee that represents a percentage of the toll dollar amount due for the period. The fee amount shall be configurable and shall not require programming changes to modify.

5.17 Convertibility

It is expected that some Invoice customers will decide to convert to a FasTrak or LP account.

- The RCSC shall allow for the ability to waive any and all fees and/or surcharges associated with invoices when converting tolls to a FasTrak or LP account.
- All tolls transferred to an account must be paid for under the new account; therefore customer converting from invoices must provide payment upon conversion.
- For conversions to FasTrak, the invoiced tolls shall post to the new account at the FasTrak toll rate, and for conversions to LP accounts, the invoiced tolls shall post to the new account at the LP toll rate.
- The RCSC shall ensure that the balance in the account (after conversion) is equal to or greater than the minimum account balance for FasTrak or positive/neutral for a LP account.
- The name and address on the invoice (as returned from the DMV) will be the name and address associated to the new account.
- This conversion functionality shall allow the customer to retain product history and vehicle information.
- For customers to initiate a conversion, the RCSC shall support three methods:
 - a. Phone with a CSR;
 - b. Via the Web;
 - c. RCSC Walk-In; or,
 - d. In writing by mail.

5.18 Invoice Processing Rules

The following subsections outline rules for processing Invoices.

5.18.1 Invoice Generation Rules

- a) The first invoice on an invoice account shall be generated as soon as possible after the grace period has closed for the first transaction (i.e. after the first transaction posts).

- b) Invoices shall be generated on the configurable anniversary cycle (i.e. every x days or on day y of each month), only when there is toll activity.
- c) Invoice payments are due 21 days (configurable) from the invoice date.
- d) Each invoice is payable in full by the invoice due date.
- e) A transaction is considered past due when the invoice on which it appears is not paid by the due date.
- f) On day 1 (configurable) after the invoice due date, transactions that have not been paid in full shall escalate to violations. Each transaction carries its own penalty in accordance with the violation business rules.
- g) Just as transactions are aggregated onto invoices, transactions that are not paid in full by the invoice due date are aggregated onto a single violation notice. That is, all violations escalated from a single invoice shall appear on a single violation notice, with one license plate image.

BATA will continue to issue a notice for each violation transaction; hence no more than one BATA transaction will appear on a single notice.

- h) No transactions on any invoice that is under appeal by a customer shall escalate to a violation until the appeal/dispute has been resolved. Appealed invoices shall be assigned a new invoice due date 10 (configurable) days after the initial due date.
- i) Customers shall be required to pay each invoice in full on the Web or at a Retail Walk-In location. Partial payments shall only be supported via CSR or by mail. For partial payments received in the mail, or to a CSR with no instruction, payments shall be applied to the oldest transactions first ('first in, first out'). CSRs shall be able to override this if requested by the customer.
- j) Invoice overpayments should first be applied to other outstanding balances at RCSC (violations or as yet un-invoiced transactions with matching LPN, name, and address). After 30 days, refunds for remaining overpayments should follow the same process as violation refunds.

5.18.2 Nixie Invoice Processing

- a. If the post office returns an invoice with an updated address, the RCSC shall reissue the invoice to the new address.

- b. All transactions on the reissued invoice shall be updated with a new invoice sent date and invoice payment due date. If the transactions have escalated to violation status, the transactions shall revert to invoice status.
- c. All unpaid invoices, with or without a correct address, shall escalate to the current violation process.

6 General Transaction Processing Rules

6.1 Image Processing

Under AET, untagged transactions, as well as transactions for invalid tags, from the Golden Gate Bridge will be referred to as Image-Based Transactions (IBTs). IBTs will contain license plate data (number and jurisdiction) for both front and rear plates as determined by the Automatic License Plate Recognition (ALPR) system. For each image there shall be a corresponding ALPR confidence level.

For transactions where the confidence level is at or above a configurable result value (e.g. 90%), and where previous RCSC image review has confirmed the correctness of the ALPR read of a particular LPN, the RCSC shall accept the ALPR read as the correct LPN and shall process the transaction using that LPN.

6.2 Transaction Flow

Upon acceptance of a license plate number and state for an IBT, the RCSC system shall:

1. First check to see if the plate belongs to a valid FasTrak or LP account, or if the plate has an associated One-Time Payment.
2. If multiple valid accounts or One-Time Payments are found, select the product with the latest effective date for the plate and post. (The system should always check for duplicate transactions in the system prior to posting.)
3. If the plate does not match any valid FasTrak, LP Account, or One-Time Payment, send to DMV for vehicle owner information.
4. Check to see whether the plate/name/address match an existing invoice account. If so, post the transaction to that account.
5. Transactions shall not be marked as invoice transactions until after the grace period. This period allows for customers to open an account or make a One-Time Payment prior to an invoice being generated.

6. No transactions shall be viewable by CSRs until they post to an account—FasTrak, LP, Invoice, or Violation. Hence, until the grace period is over, and the image review and DMV lookup processes are successfully completed (where applicable), the transaction will not be accessible in the system.
7. On RCSC’s regular sweep schedule, the RCSC shall continue to attempt to match outstanding transactions to existing accounts and One-Time Payments before the system generates an invoice.
8. Once the grace period has expired, the RCSC shall make a final attempt to post to valid account or product before generating an invoice and also before generating a violation notice.

See also [Attachment I-B](#).

6.3 Payment Processing for One-Time Payment Product with a Cash Balance

1. If the toll amount equals the available One-Time Payment, process toll amount against the One-Time Payment balance and suspend the One-Time Payment product.
2. If toll amount is less than available One-Time Payment, process toll amount and keep One-Time Payment open for future transactions (if any) within 30 days of payment date. Tolls shall be applied in accordance with latest effective date rule.
3. If the toll amount is greater than the available One-Time Payment balance, do nothing with the One-Time Payment and process the toll as an invoice transaction.

6.4 DMV Response Processing

The RCSC shall investigate and implement strategies that will measurably improve DMV hit rates and allow for enhanced vehicle ownership identification capabilities, while maintaining compliance with state statutes for violation enforcement. This may include the use of third party data suppliers and/or using or providing additional registration attributes (e.g. plate type) as part of the vehicle query.

6.5 Transaction Sweeps

6.5.1 Invoice Transactions

The RCSC shall attempt to post (sweep) Invoice transactions to a valid FasTrak or any type of Pay-by-Plate product prior to invoice generation.

6.5.2 Violation Transactions

The RCSC shall attempt to post (sweep) open Violation transactions to a valid FasTrak or LP account prior to escalation to DMV registration hold or collections.

6.6 Partial Payments

Transactions on an invoice that are not paid in full by the invoice due date shall be escalated to violations, with all escalated transactions on the invoice escalating to a single violation notice, and with a separate violation penalty associated with each toll transaction on that notice.

Any single transaction that is not paid in full follows current RCSC rules for processing partial payments, with any portion of any toll that remains unpaid past the due date escalating to violation.

7 Product Conversion

FasTrak accounts cannot be converted to any other product. License Plate accounts can be converted to FasTrak accounts.

High-level conversion rules for the various products are summarized in [Attachment I-A](#). Additional rules are as follows:

- Conversion to FasTrak will be enabled in the Web and Vector Online (via CSR).
- A private LP account will be converted to a private FasTrak account and a business LP account to a business FasTrak account. Cross conversion will not happen.
- Once a product is converted to a FasTrak account, all unprocessed transactions will post as per regular FasTrak rules and at the FasTrak rate.
- When converting to a FasTrak account, CSR will add the required PPTL balance as applicable. If the conversion is from a One-Time Payment, any remaining balance will be transferred to the FasTrak PPTL. Note that any conversion from a One-Time Payment must be performed by a CSR on an exception basis only.
- When converting to FasTrak from a LP account, the FasTrak account will have the same account number, PIN, username, and password as the original LP account.

8 Violations

Under AET, invoiced transactions that are not paid in full by the invoice due date escalate to violation transactions.

Transactions that were aggregated onto an invoice are aggregated onto a single violation notice. Each violation transaction carries its own violation penalty in accordance with District policy.

Since a DMV lookup was performed for each transaction prior to invoicing, there is no need to perform an additional DMV lookup prior to violation noticing. The registered owner of the vehicle at the time of the transaction is considered liable for the violation.

- The RCSC shall follow existing business rules for the payment of violations online, by phone, and by mail.
- Violation payment shall also be accepted at retail walk-in locations. Customers shall provide the violation number, as well as license plate number and state.

ATTACHMENT I-A: REQUIREMENTS SUMMARY

I-A-1: Business Rules Matrix

#	Business Rule	LP (CC and/or Cash)	OTP (CC or Cash)	Invoicing
General				
1	Terms & Conditions	Yes, New/Revised	Yes, New/Revised	No
2	Facility Specific	Yes – all business rules apply to any facility for which LP is turned on	Yes – all business rules apply to any facility for which OTP is turned on	Yes – all business rules apply to any facility for which Invoicing is turned on
3	Agency ID	BATA 70	BATA 70	BATA 70
Product Features				
4	Carries Pre-Paid Balance	Optional	No (if CC supplied) Yes (if cash/check supplied)	No
5	Participates in QEVAL	No	No	No
6	Revenue Recognition	When transactions post at the RCSC (new trancodes/GL to be created and mapped)	When transactions post at the RCSC (new trancodes/GL to be created and mapped)	Upon invoice generation (when confirmation is received from the mailhouse) – VT Demo trancodes/GL to be used; no change
7	Refund Eligibility	No chargebacks for txns posted to CC Cash balances may be refunded operationally, via CSR intervention only – business rule TBD	No chargebacks for txns posted to CC Cash balances may be refunded operationally, via CSR intervention only – business rule TBD	Overpayments >\$5 and over 90 days only (same as current rules for violations)
8	Can be Non-Revenue	No	No	No
9	Guarantee of tolls to CTOC agencies based on RCSC tag/plate files	No	No	No
Product Policies				

10	Registration Information – Required	Account Type, First Name, Last Name, Address #1, City, State, Zip Code, Email, Statement Delivery Option, PIN, LPN, LP State, Vehicle Make, Vehicle Model, Vehicle Year, Effective Date CC Type, CC Number, CC Expiration Date [<i>only if associating a CC to the file</i>]	LP Number, LP State, Effective Date, Account Closure Date CC Type, CC Number, CC Expiration Date (only if CC supplied)	N/A (Invoice product has LPN, Name, Address, Vehicle Make—as returned by DMV)
11	Registration Information – Optional (Requested)	Middle Initial, Business Name, Address #2, Zip+4, Daytime Phone, Cell Phone, Evening Phone, Fax, Account Closure Date	Email Address	N/A
12	Min number of vehicles	1	1	1
13	Max number of vehicles (Configurable)	5	1 (CSRs may add up to 5)	1
14	LPN Back-Date Timeframe	90 days from account open (VECTOR via CSR); w/in grace period (Web) No future dates allowed	90 days from account open (VECTOR via CSR); w/in grace period (Web) No future dates allowed	N/A
15	Product Establishment Locations	Web, Walk-In CSC, CSR-Phone, Mail	Web, Walk-In CSC, CSR-Phone, Mail, Retail Walk-In (cash only)	N/A
16	Can Update Information	Yes (username and password required for Web)	CSR only; customers will not have username/password or PIN	No – account is established using information returned by DMV
17	Account Closure Date	Optional; must be future date	Default to 30 days; customer may indicate earlier date	No
18	Account Statements (sent only if activity)	Default email monthly; ground mail available	No – system with default to NONE-NONE	No
19	Payment Locations	Web, IVR, Walk-In CSC, CSR-Phone, Retail Walk-In (CPN), Mail	Web, IVR, Walk-In CSC, CSR-Phone, Retail Walk-In (CPN), Mail – all only at product establishment	Web, IVR, Walk-In CSC, CSR-Phone, Retail Walk-In (CPN), Mail
20	Minimum Prepaid Opening Balance	\$0	\$0	N/A

21	Minimum Payment Amount	N/A	Single 2-axle toll	Full invoice amount due (partial payments can be done by CSR or by mailing a check only—not encouraged)
22	Payment Methods	Cash, Check, CC	Cash, Check, CC	Cash, Check, CC
23	Post-Payment Grace Period (Configurable)	Transaction date + 2 full days	Transaction date + 2 full days	Invoice date + 21
24	Replenishment Amount	N/A	N/A	N/A
25	Replenishment Threshold	N/A	N/A	N/A
26	Tag Deposit	N/A	N/A	N/A
27	Max number of tags	0	0	N/A
28	Lost/stolen tags maximum liability	N/A	N/A	N/A
29	Insufficient Balance / Payment Method	Go to DMV lookup and Invoice full toll amount – new Invoicing account	Go to DMV lookup and Invoice full toll amount – new Invoicing account	N/A
30	Partial Payments	No	No	Yes (via CSR or Mail only)
31	Negative Balances	No	No	No
32	Suspension	At CC decline or zero balance, whichever occurs first	At CC decline or zero balance, whichever occurs first	N/A
33	Automated Account Closure	After 12 months of inactivity; after 30 days in suspension; or at account closure date – mailhouse ICD will be updated to indicate the closure reason	After 12 months of inactivity; after 30 days in suspension; or at account closure date – no correspondence sent	N/A Invoice products created by CSC remain open indefinitely
Cash Payment Network				
34	Product Creation	No	Yes (cash only)	No
35	Payment Methods	Cash	Cash (for new OTPs only)	Cash
36	Minimum Payment	2-axle toll rate	2-axle toll rate	Full invoice amount due
37	Merchant Fees Paid by Agency	Yes, GGB	Yes, GGB	Yes, GGB
Account Fees				
38	Statement/Invoice Fee (Configurable)	\$0	N/A	\$0
39	Additional Statement/ Invoice Fee (Configurable)	\$1	N/A	\$1

40	Video Toll Processing Fee (Configurable)	\$0 for GGB txns \$0.50 for BATA txns	\$0 for GGB txns \$0.50 for BATA txns	No
41	Bad Check Fee (NSF)	\$25 – CSR will mark transaction(s) for Invoicing; invoice will include this fee	\$25 – CSR will mark transaction(s) for Invoicing; invoice will include this fee	\$25 – subsequent invoice or violation notice (if transaction has escalated) will include this fee
42	Tag Replacement Charges	N/A	N/A	N/A
43	Infrequent User Fee	N/A	N/A	N/A
44	Account Maintenance Fee	N/A	N/A	N/A
45	Tags Fees/Sales	N/A	N/A	N/A
Invoicing Policies				
46	Invoicing	If account suspended; if either the balance is insufficient for full toll and no CC on file or CC declines; NSF	If account suspended; if either the balance is insufficient for full toll and no CC on file or CC declines; NSF	Yes
47	Number of invoices sent before escalating to violation	N/A	N/A	1
48	Invoice Frequency (configurable by time)	N/A	N/A	ASAP after grace period, then every 30 days from first invoice date
49	Invoice payment timeframe	N/A	N/A	Up to 21 days from invoice date; if unpaid after due date, escalate to notice
50	Minimum toll amount to be invoiced on standard invoice cycle	N/A	N/A	\$1 (configurable)
51	Maximum time to hold any toll amount prior to invoicing	N/A	N/A	30 days (configurable)
52	Inactive time before unpaid fees are written off	N/A	N/A	Follow existing CSC policy; fees <\$5 written off
Sweep Policies				
53	Sweep From Invoice	Yes, based on LED and account hierarchy (Home, CTOC, Rentals)	Yes (CSR only), based on LED and account hierarchy (Home, CTOC, Rentals)	N/A
54	Sweep From Violation	Yes, based on LED and account hierarchy (Home, CTOC, Rentals)	Yes (CSR only), based on LED and account hierarchy (Home, CTOC, Rentals)	No
Conversion Policies				

55	Convert to FasTrak	Yes	Yes (CSR only – CSR must overwrite defaults in Vector)	Yes
56	Transactions Transferred to FasTrak Account	Yes	Yes	Only transactions on the Invoice used to convert (swept transactions)
57	Balance Transferred to FasTrak Account	Yes, if there is a balance (new trancode for PPTL transfer)	Yes, if there is a balance (new trancode for PPTL transfer)	N/A
58	Convert to LP Account	N/A	Yes (CSR only – CSR must overwrite defaults in Vector)	Yes
59	Transactions Transferred to LP Account	N/A	Yes	Only transactions on the Invoice used to convert (swept transactions)
60	Balance Transferred to LP Account	Yes, if there is a balance (new trancode for PPTL transfer)	Yes, if there is a balance (new trancode for PPTL transfer)	N/A
61	Conversion Toll Rate	Destination acct rate	Destination acct rate	Destination acct rate
No-Plate Payments				
62	No-Plate Payments will be accommodated using the One-Time Payment functionality. A static message will be presented on the Web or at the CPN to enter 'NOPLATE' in the license plate field (this would be entered by a CSR if received over the phone or through correspondence). The funds for OTP accounts (including these No-Plate Payments) with remaining balances will regularly (TBD—likely once per month) sweep to GGB after the OTP accounts close.			

Once account is setup, all accounts behave as LP accounts & there are no restrictions on CSR activity on such accounts. Restrictions on OTP accounts will have to be handled via policy and not coding.

I-A-2: Additional General Assumptions for LP/OTP and Invoicing

1	New Bank merchant id's will be configured for LP-CC/OTP CC payment
2	LP/OTP Toll posting dispute will be moved to PPTL and manual refund will be made by CSR. Toll dispute from the web is via CRM request going to a CSR.
3	In case of OTP , assumption is that the customer will only know the Account no (aka confirmation #). They will not know Pin/Username/Password.
4	LP accounts can be either Private or Business. OTP accounts will always be Private.
5	Auto replenish LP/OTP Account (Rental/PlatePass type of account) changes are not covered in current scope.
6	Invoice Accounts - No changes with respect to account creation as per DEMO.
7	Invoice Generation time limit for the First and Ongoing Invoices are configured only for the period (that is in days) as discussed during meetings with GGBD. i.e 1st invoice will go out ASAP (1 - 2 days from VT-I account creation date), subsequent invoice on the 30th day of the previous invoice date. Change in First invoice frequency (from 15 days to 1 day).
8	Applying the Invoice Overpayments to any other Invoices or invoiced transactions are operational requirements and to be taken care by the CSR. There are no system changes/additional requirements for this.
9	TOR on LP/OTP postings are not allowed.
10	Invoicing - No new tran codes Will remain the same as DEMO.
11	If the post office returns an invoice with an updated address, the RCSC shall reissue the invoice to the new address. - This is operational and CSR will do the TOR.
12	Web pages developed will be based on SWIRL/MIG provided template.
13	Notice TOR will go to the Invoice stage and there will not be any NSF carried over from the notice to the invoice (if any).
14	Invoice/notice disputes (DISPTOL) to an OTP account is not possible because the customer does not know PIN/USERNAME/PASSWORD. There are no system restrictions via a CSR activity.
15	ICD - Incoming via file - Multiple input toll amounts and dynamic toll rate for posting based on the different type of posting on various types of accounts is out of scope. There is no toll schedule maintenance @ the CSC for AET.
16	One invoice will escalate as one notice (multiple transactions). Similar to DEMO, invoice receivables will be dismissed and notice receivables will be created at the time of this escalation.
17	The estimate does not include any new system performance standards tracking and/or adjustment on current processes.
18	Invoice & notice payments via WEB & IVR are in full. I,e, partially paid invoices and notices can be paid in-full as well.
19	5 new reports will be developed. There are no details defined by the customer. As a result, the report scope only reflects report creation with basic data input. There are no major changes to the reporting sub-system to support 5 new reports.

20	<p>Multiple transactions (on the same plate) reversed with NSF and which get grouped into one invoice, the sum of all NSF's are added to that Invoice as one receivable. For e.g. customer submits 2 checks (covering 2 or more transactions) for the same plate (same or different LP/OTP accounts) and both checks bounce and transactions get reversed with an NSF. Both posted transactions may result in 1 invoice with an NSF receivable of \$50.</p> <p>If there are no transactions posted to the account prior to NSF then there is no systematic way of collecting the NSF.</p>
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I-A-3: Conversion and Sweep Scenarios

From:	To:	On Web?	Via CSR?	Supporting Business Rules
Violation	Invoice	N	N	Cannot add a plate to an invoice account. Transactions become invoice transactions based only on DMV return of Name/Address for an LPN.
Violation	OTP	N	Y	One-Time Payment must have either sufficient cash balance or a valid CC on file. Violation must not have escalated to DMV Hold. CSR only can back-date plate to sweep transactions. Toll(s) swept at OTP rate. Swept transaction(s) shall NOT be viewable by the customer; however, they shall be viewable on the OTP by a CSR.
Violation	LP	Y	Y	LP account must have either sufficient cash balance or a valid CC on file. Violation must not have escalated to DMV Hold. Toll(s) swept at LP rate. Swept transaction(s) shall be viewable by the customer on the LP account.
Violation	FasTrak	Y	Y	FasTrak account must have sufficient balance and/or a valid CC on file for replenishment. Violation must not have escalated to DMV Hold. Toll(s) swept at FasTrak rate. Swept transaction(s) shall be viewable by the customer on the FasTrak account.
Invoice	OTP	N	Y	One-Time Payment must have sufficient balance. CSR only can back-date plate to sweep transactions. Toll(s) swept at OTP rate. Swept transaction(s) shall not be viewable by the customer, as OTPs are inaccessible by customers; however, the swept transaction(s) shall post to the OTP and hence be accessible in Vector.
Invoice	LP	Y	Y	LP account must have either sufficient cash balance or a valid CC on file. Toll(s) swept at LP rate. Swept transaction(s) shall be viewable by the customer on the LP account.

Sweeps
(i.e. post to existing Account)

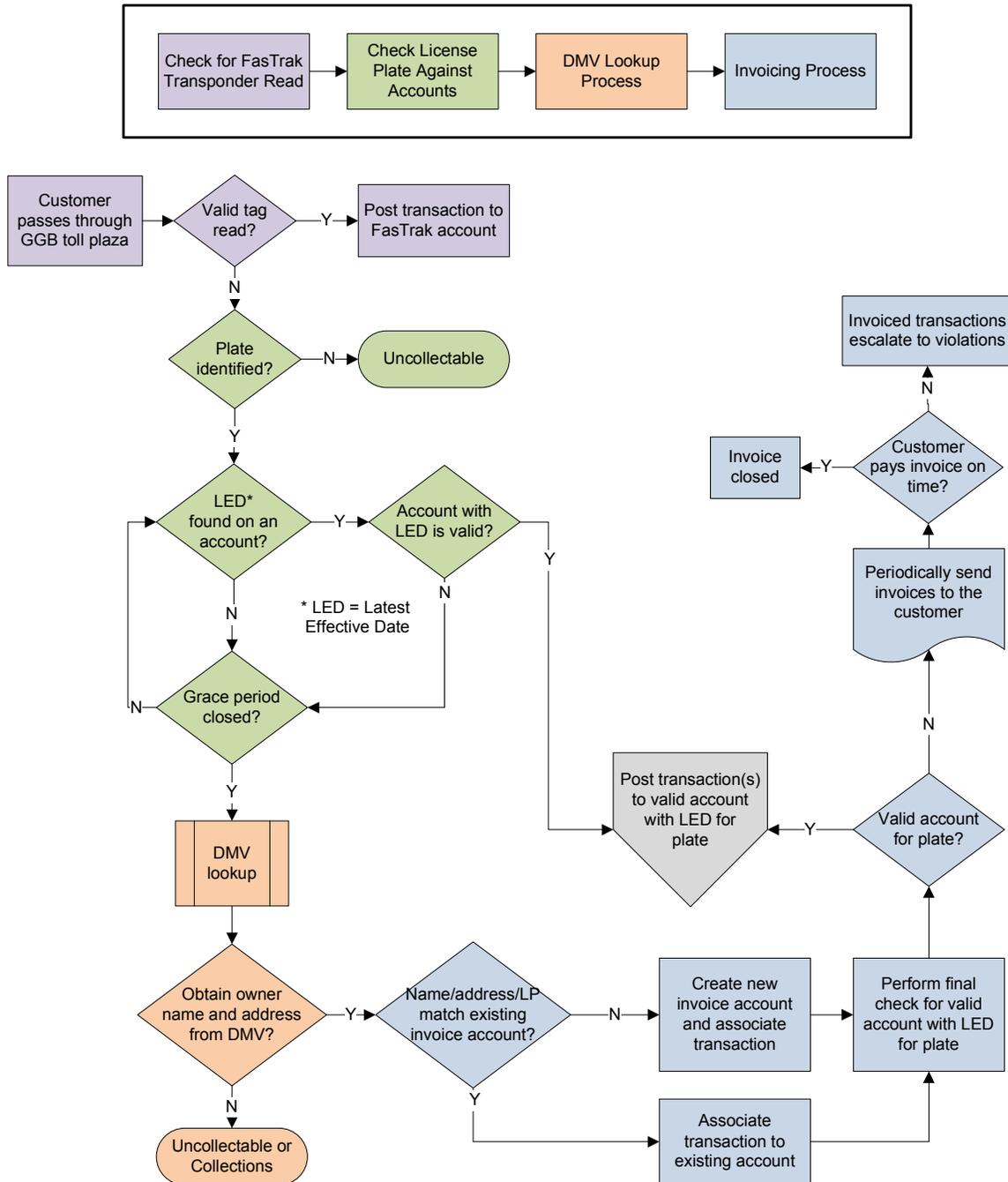
	Invoice	FasTrak	Y	Y	FasTrak account must have sufficient PPTL balance. Toll(s) swept at FasTrak rate. Swept transaction(s) shall be viewable by the customer on the FasTrak account.
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	OTP	LP	N	Y	Customer must provide all required Name/Address information for the LP account. Any remaining balance will be carried over to the new Cash LP account. All transaction history shall be carried over to the new Cash LP account.
	OTP	Cash FasTrak	N	Y	Customer must have sufficient balance on the One-Time Payment to both apply a deposit per toll tag requested and achieve the minimum balance (currently \$50). Any remaining balance will be carried over to the new Cash FasTrak account. All transaction history shall be carried over to the new Cash FasTrak account.
	OTP	CC FasTrak	N	Y	Customer must provide CC Number and Name/Address billing information for auto-replenishment. Customer must bring account to minimum balance (currently \$25). Any remaining balance will be carried over to the new CC FasTrak account. All transaction history shall be carried over to the new CC FasTrak account.
	LP	Cash FasTrak	N	Y	Customer must have sufficient PPTL balance on the LP account to apply a deposit for each toll tag requested and achieve the minimum balance (currently \$50). Provided the above condition is met, the balance will be carried over to the new Cash FasTrak account. All transaction history will be carried over to the new Cash FasTrak account.
	LP	CC FasTrak	Y	Y	Customer must bring the account to minimum balance (currently \$25). Customer must associate a CC with the account for automatic replenishment (or allow current card on file to be carried over). All transaction history will be carried over to the new CC FasTrak account. There is no balance on a CC LP account to carry over to the CC FasTrak account.
	Cash FasTrak	CC FasTrak	N	N	Not a conversion. Customer must only change payment/demographics information.

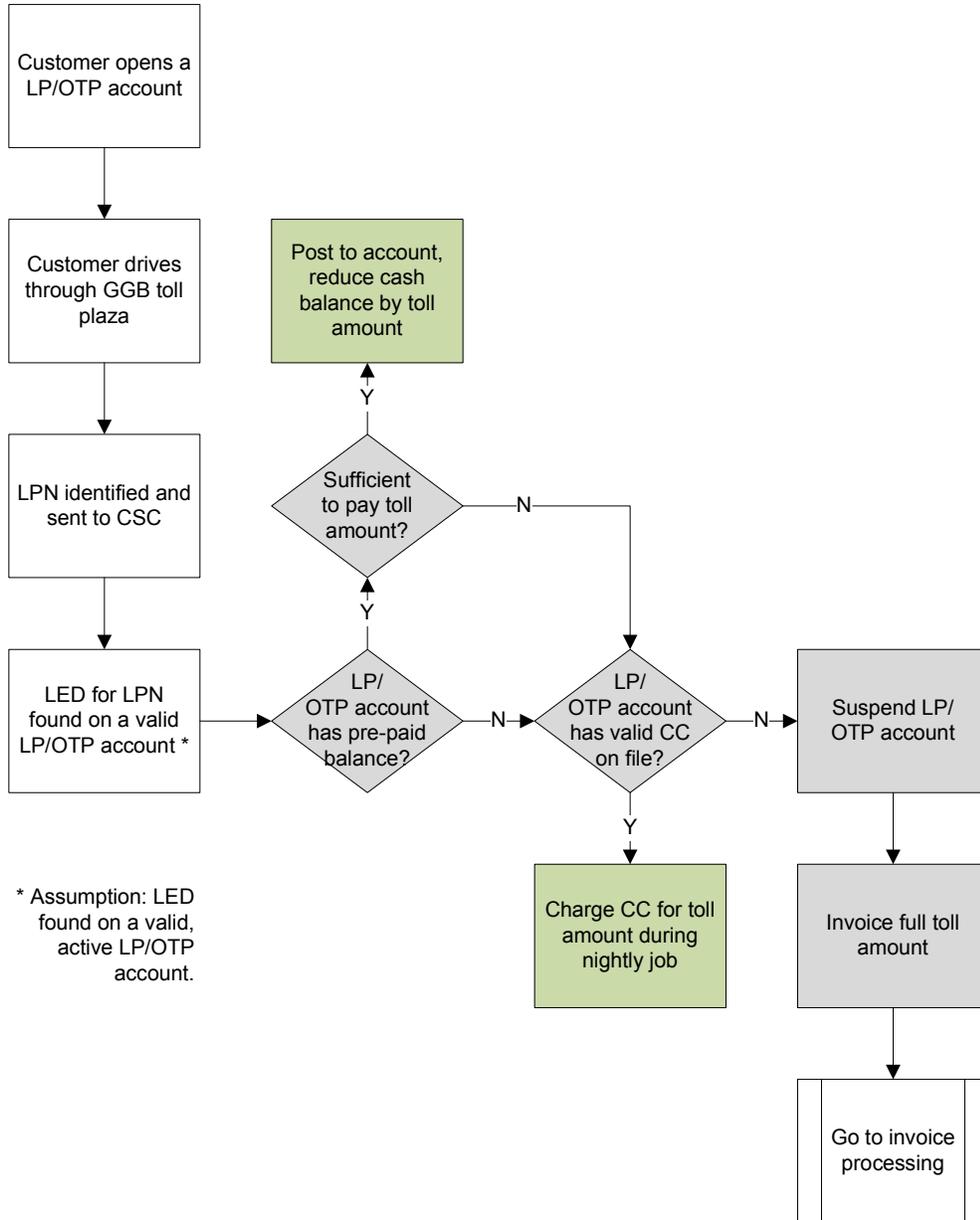
ATTACHMENT I-B: TRANSACTION PROCESSING & ACCOUNT / PAYMENT FLOWCHARTS

I-B-1: Transaction Processing Flowchart

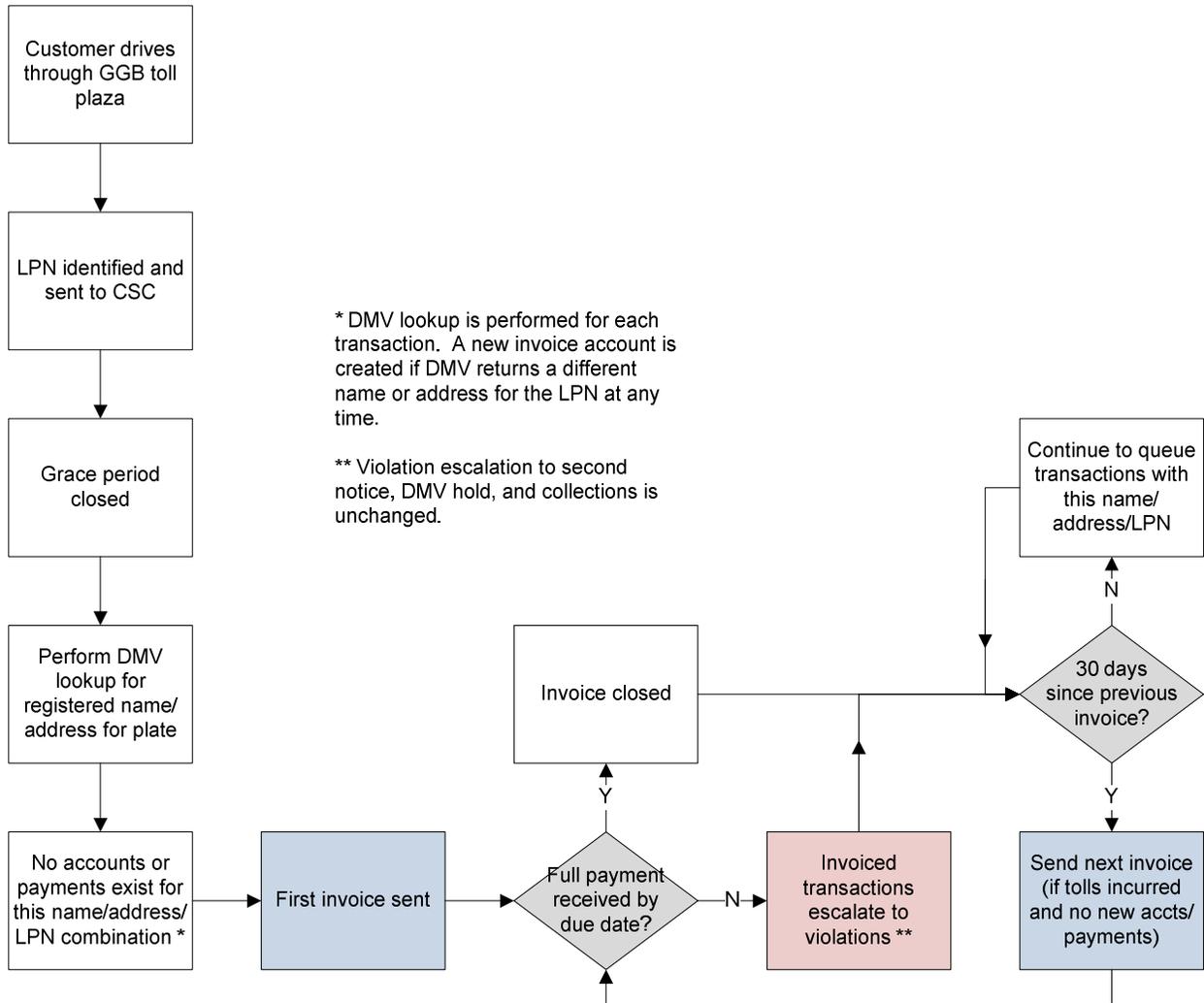
Note: For the purposes of this representation, the term 'account' applies to FasTrak Accounts, LP Accounts, and One-Time Payments.



I-B-2: LP/OTP Account Posting Process



I-B-3: Invoicing Process



ATTACHMENT I-C: ONE-TIME-PAYMENTS, REQUIRED FIELDS & DEFAULT VALUES

This attachment provides the Golden Gate Bridge District's assessment of how One-Time Payment (OTP) functionality might work in the context of the License Plate (LP) account. Note that this is not a requirements document; final functionality will be determined jointly during detailed design meetings.

OTP: AET Requirements Document

The OTP concept was designed to allow for the simplest and most convenient payment option possible for the customer. The OTP would require a customer to provide only the minimum amount of information to pay for tolls. Besides convenience, this would also afford the customer a relatively high degree of anonymity.

Assumptions:

Fields indicated as “Default” for OTPs are not visible to the customer, unless indicated that that the user may modify/over-write.

	Field	LP Accounts		OTP “Accounts”	
		LP Account CC	LP Cash	OTP CC	OTP Cash
1.	Account Type (Private or Business)	Selected by User	Selected by User	Default to PRIVATE	Default to PRIVATE
2.	Contact First Name	Required	Required	Default	Default
3.	Contact Middle Initial	Optional	Optional	Default	Default
4.	Contact Last Name	Required	Required	Default	Default
5.	Business Name	Optional	Optional	N/A – all OTPs are ‘Private’	N/A – all OTPs are ‘Private’
6.	Address #1	Required	Required	Default	Default
7.	Address #2	Optional	Optional	Default	Default
8.	City	Required	Required	Default	Default
9.	State /Province	Required	Required	Default	Default
10.	Zip / Postal Code	Required	Required	Default	Default
11.	Zip + 4	Optional	Optional	Default	Default
12.	E-mail	Required	Required	Default to NULL	Default to NULL
13.	Daytime Phone	Optional	Optional	Default	Default
14.	Cell Phone	Optional	Optional	Default	Default
15.	Evening Phone	Optional	Optional	Default	Default
16.	Fax	Optional	Optional	Default	Default
17.	Statement Delivery Option	Required	Required	Default to NONE-NONE	Default to NONE-NONE
18.	Account Number	Assigned by Vector	Assigned by Vector	Assigned by Vector – “Confirmation Number”	Assigned by Vector – “Confirmation Number”
19.	PIN	Required	Required	Default	Default
20.	Retype PIN	Required	Required	N/A	N/A
21.	Username	Required when sign-up or account login via the customer web.	Required when sign-up or account login via the customer web.	Default to NULL	Default to NULL

22.	Password	Required when sign-up or account login via the customer web.	Required when sign-up or account login via the customer web.	Default to NULL	Default to NULL
23.	Retype Password	Required when sign-up or account login via the customer web.	Required when sign-up or account login via the customer web.	N/A	N/A
24.	Account Closure Date	Optional	Optional	Default to 30 days and user can over-write not exceeding 30 days. (30 days is configurable)	System will default to 30 days and user can over-write not exceeding 30 days. (30 days is configurable)
25.	License Plate Number	Required	Required	Required	Required
26.	License Plate State	Required	Required	Required	Required
27.	Vehicle Make	Required	Required	Default to NULL	Default to NULL
28.	Vehicle Model	Required	Required	Default to NULL	Default to NULL
29.	Vehicle Year	Required	Required	Default to NULL	Default to NULL
30.	Effective Date	Required	Required	Default to current date with user option to modify and not to exceed 90 (configurable) days prior to current date. No future dates allowed.	Default to current date with user option to modify and not to exceed 90 (configurable) days from current date. No future dates allowed.
31.	Card Type (Pull Down)	Selected by User	Not used	Selected by User	Not used
32.	Credit Card Number	Required	Not used	Required	Not used
33.	Expiration Date	Required	Not used	Required	Not used

SECTION II: CUSTOMER MATERIALS, IVR, AND WEB

1 Customer Materials

1.1 Overview

Customer materials will require updating to accommodate All Electronic Tolling. In some instances, existing materials will be modified and in others new materials will be developed.

The following is intended to provide an indication of the anticipated level of effort required. Final wording of materials will be determined by the GGB marketing department in consultation with BATA.

1.2 Material Revision and Development

There are two categories of customer materials: (1) forms that can be downloaded from the internet and, (2) communications generated by the CSC and forwarded (via ground mail or email) to customers.

Some of the AET-required materials were developed for the Video Tolling Demonstration and will require only minor changes.

Following is a chart of existing customer forms and communications with the anticipated changes. Note that the 'VT Demo Document' column is included to indicate which documents were not tested during the VT Demo project.

Document	Revise	VT Demo Document	No Change	Notes
I. FORMS & INFORMATION				
Application	X			Content and format changes only; single application for LP and FasTrak accounts
Terms and Conditions	X			Content changes only; separate Terms and Conditions for each product
Privacy Policy	X			Content changes only; single document for all products
FasTrak Customer Handbook	X			Content and format changes only
Account Update Form	X			Content & format changes

Document	Revise	VT Demo Document	No Change	Notes
				only; single form for LP and FasTrak accounts
Account Closure Form	X			Content and format changes only; single form for LP and FasTrak accounts
Additional Toll Tag Request Form			X	No change required.
Replacement Toll Tag Request Form			X	No change required.
DMV Registration Hold Dispute Form			X	No change required.
II. COMMUNICATIONS				
Welcome Letter (VT Demo)	X			Content and format changes only; single form for LP and FasTrak accounts
OTP Confirmation Email	X			Modification to “Welcome Letter” for OTP customers
Credit Card Expiration Letter	X			Content and format changes only; single form for LP and FasTrak accounts
Credit Card Decline Letter (Suspension)	X			Content and format changes only; single form for LP and FasTrak accounts
Suspended Account Closure Letter	X	X		Content and format changes only; single form for LP and FasTrak accounts
Inactive Account Warning Letter (VT Demo)	X	X		Content and format changes only; single form for LP and FasTrak accounts
Inactive Account Closure Letter (VT Demo)	X	X		Content and format changes only; single form for LP and FasTrak accounts
Statement	X			Content and format changes only; distinct documents for FasTrak and LP accounts

Document	Revise	VT Demo Document	No Change	Notes
Invoice (VT Demo)	X			Content and minor format changes to document developed for VT Demo
Violation Notices	X			Content and format changes only; no change to process developed for VT Demo Modify to include multiple transactions, each with an associated penalty; single LP image
NSF Letter (pre-paid LP account)	X			Single document for all NSF; may require minor content and format changes to existing NSF Letter

1.3 Materials by Product

The chart below indicates which forms will be required for which product. There is no change to the handling of FasTrak customers. No materials will be required for the No Plate product.

Document	LP Account	One-Time Payment	No Plate	Invoice
I. FORMS & INFORMATION				
Application & License Agreement	X			
Terms and Conditions	X	X (abbreviated)	X (abbreviated)	
Privacy Policy	X	X	X	X
FasTrak Customer Handbook	X	X		X
Account Update Form	X			
Account Closure Form	X			
II. COMMUNICATIONS				
Welcome Email (VT Demo)	X			

Document	LP Account	One-Time Payment	No Plate	Invoice
OTP Confirmation Email		X		
Credit Card Expiration Email	X			
Credit Card Decline Email (Suspension)	X	X		X
Suspended Account Closure Email	X			
Inactive Account Warning Email (VT Demo)	X			
Inactive Account Closure Email (VT Demo)	X			
Statement	X			
Invoice (VT Demo)				X
Violation Notices	Violations shall be designed to include multiple transactions on a single notice.			

2 IVR

The CSC IVR functionality shall support current and new products as detailed in this section.

The functional areas that the IVR must accommodate include:

- Current FasTrak and LP account holders access account information
- Current FasTrak and LP account holders make a one-time payment to an account using credit card or no-PIN debit card
- Receive static information about available account types / payment options
- Invoices
- Violations
- Receive static information about Cash Retail Walk-In payments and locations
- Receive CPN Retailer Location information

The current IVR only allows numeric data entry; the actions below require transfer to a CSR:

- Create a new FasTrak account
- Create a new LP account
- Add or update license plate number(s) on account
- Update account information (mailing address, email address, phone number, etc.)
- Make a One-Time Payment (non account holders)
- Make a No-Plate Payment

2.1 Current LP and FasTrak Account Holders

The IVR shall allow current account holders to:

- Hear the current account balance
- Make a one-time payment to the account using a credit card
- Update the credit card associated with the account
- Associate a secondary credit card with the account
- Update the PIN associated with the account

In order to access any of the above account holder options, the IVR shall require proper account credentials (account number and PIN).

2.2 No-Plate Payments

For customers wishing to make a No-Plate Payment, the IVR shall indicate that the customer must have a credit card and billing address information available and speak with a CSR to complete the transaction. The IVR shall prompt the customer to make a selection to be transferred to a CSR.

As CSRs cannot initiate confirmation mail/emails, the customer will be notified that if they wish to print a receipt, they must make the No-Plate Payment on the FasTrak website. However, for No-Plate Payments completed over the phone through a CSR, the CSR shall provide the customer with a unique reference number for the No-Plate Payment.

2.3 One-Time Payments

Because making a One-Time Payment requires that the customer provide a license plate number, the existing IVR will require the customer to speak with a CSR.

For customers wishing to make a One-Time Payment, the IVR shall indicate that the customer must have a credit card and the license plate number of their vehicle available. The IVR shall prompt the customer to make a selection to be transferred to a CSR.

As CSRs cannot initiate confirmation mail/emails, the customer will be notified that if they wish to print a receipt, they must make the One-Time Payment on the FasTrak website. However, for One-Time Payments completed over the phone through a CSR, the CSR shall provide the customer with a unique reference number for the One-Time Payment.

2.4 Invoices

The IVR shall allow customers to hear invoice total amount due and pay invoices using a credit card or no-PIN debit card.

When the customer selects the invoice payment option, the IVR shall prompt the customer to enter the invoice number (omitting the leading 'I'). The IVR shall indicate the total outstanding amount due on the invoice.

The IVR shall provide a selection option for the customer to pay the invoice using a credit card or no-PIN debit card. The IVR shall only accept payment of the full invoice amount due.

The IVR shall indicate that customers wishing to make a partial payment must speak with a CSR; and the IVR shall indicate the appropriate selection for the customer to be transferred to a CSR.

2.5 Violations

The IVR shall allow customers to hear violation notice total amount due and pay violations using a credit card or no-PIN debit card.

When the customer selects the violation payment option, the IVR shall prompt the customer to enter the violation number (omitting the leading 'T'). The IVR shall indicate the total outstanding amount due on the notice.

The IVR shall provide a selection option for the customer to pay the violation using a credit card or no-PIN debit card. The IVR shall only accept payment of the full violation amount due.

The IVR shall indicate that customers wishing to make a partial payment must speak with a CSR; and the IVR shall indicate the appropriate selection for the customer to be transferred to a CSR.

2.6 Cash Payment Network

For customers wishing to hear information about options for making cash payments (either to an account, to a document, or as a One-Time Payment), the IVR shall provide static information about the Cash Payment Network program.

The IVR shall also provide static location and/or contact information for a fixed set of retailers to be identified by GGB.

3 Web

The CSC Web functionality shall support current and new products as detailed in this section.

3.1 Account Creation

The Web shall allow customers to create new FasTrak and LP accounts. The Web shall clearly indicate the available products, including on which facility(ies) they can be used, in order to facilitate customer understanding of the available products.

The Web shall not support creation of the Plate-Only type Pay-by-Plate account, as this account type is available only to fleets and requires BATA/GGB approval.

3.1.1 FasTrak Accounts

There shall be no change to the current FasTrak account opening functionality on the Web.

3.1.2 LP Accounts

License Plate accounts can be opened via the Web either with or without an associated credit card placed on file. The Web shall indicate that LP accounts opened without an associated credit card placed on file will not be valid for use until either a credit card is added to the account or a balance is applied. This balance can be established by making a one-time credit card payment on the Web; and the Web shall indicate that cash may be used to establish a balance by visiting a Retail Walk-In location or by mailing in a check.

The required fields for creating a LP account on the Web are:

- First Name
- Last Name
- Street Address
- City
- State/Province
- Zip Code
- Email Address
- License Plate Number
- License Plate State/Province
- Vehicle Make
- Vehicle Model
- Vehicle Year
- License Plate Effective Date (defaults to current date, but may be edited to up to 90 days prior to current date)
- Username
- Password
- PIN

The following fields shall be optional:

- Credit Card Information
- Daytime/Evening/Cell/Fax Phone Numbers
- Account Closure Date
- For Each Additional Vehicle (note that at least one vehicle is required):
 - License Plate Number
 - License Plate State/Province
 - Vehicle Make
 - Vehicle Model
 - Vehicle Year
 - License Plate Effective Date (up to 90 days prior to current date)

The Web shall require that all account holders agree to Terms and Conditions.

3.2 Account Login

Customers shall be able to log in to FasTrak and LP accounts via the 'My Account' tab on the www.bayareafastrak.org homepage (no change from the VT Demo functionality). There shall be no change to the 'My Account' login page.

3.3 Account Conversion

LP account holders shall be able to convert to a FasTrak account as indicated in this section. Note that conversion from FasTrak to a LP account is not allowed on the Web or by any other method.

3.3.1 Converting From LP To FasTrak

The Web shall allow customers to convert from any LP account to a FasTrak account. In all cases of conversion to FasTrak, the Web shall prompt the customer to submit a request for at least one transponder for the new account (no change to current process).

If the LP account has an associated credit card on file, the account shall be converted, with all account, transaction history, and credit card information carrying over. The Web shall indicate that the account number, PIN, username, and password remain the same for the converted account. The Web shall clearly indicate that the credit card will be charged in order to establish the minimum pre-paid balance for the FasTrak account. The Web shall allow the customer to update the credit card information (i.e. provide a different card) if desired.

If the LP account does not have an associated credit card on file, the account shall be converted, with all transaction history, all account information, and any current balance on the account carrying over. The Web shall indicate that the account number, PIN, username, and password remain the same for the converted account. The Web shall require that the customer provide the required credit card information for a FasTrak account. The Web shall clearly indicate that any remaining cash balance will carry over to the FasTrak account and that the credit card provided will be charged in order to establish the minimum pre-paid balance for the FasTrak account.

LP account holders shall not be able to convert to a Cash FasTrak account on the Web.

3.4 One-Time Payments

The Web shall allow customers to make One-Time Payments, including No-Plate payments, using a credit card or no-PIN debit card. Although One-Time Payments may be implemented by taking advantage of the LP account infrastructure, the Web interface shall be distinct. Customers making One-Time Payments via the Web shall not be made aware that an account is being created.

The One-Time Payment interface on the Web shall not require all of the data fields required for FasTrak or LP accounts. The required fields for One-Time Payments made on the Web are:

- License Plate Number

- License Plate State/Province
- License Plate Effective Date (defaults to the current date; customer may optionally back-date this up to the length of the grace period or set a future date)
- Account Closure Date (defaults to 30 days from current date; customer may optionally indicate a closure date of fewer than 30 days from current date only)

If the customer wishes to make a One-Time Payment using a credit card, the Web shall require the customer to enter the necessary card information (number and expiration date). The Web shall allow customers to enter an optional email address, indicating that a confirmation will be sent to the email address if one is provided.

The Web shall clearly indicate, prior to transaction submission, that One-Time Payments are good for up to 30 days from the current date and that the credit card provided will be charged for each trip only after the trip is taken.

Whether an email address is provided or not, the Web shall display a confirmation page with an option to print. The confirmation page shall display all data entered by the customer; however, only a partial Credit Card Number shall be displayed (according to current CSC policy). The confirmation page shall also include a unique transaction reference number. All One-Time Payments shall be assigned a unique reference number.

Customers shall not be permitted to view or update One-Time Payments via the Web. The Web shall not allow customers to convert a One-Time Payment to an account or to sweep invoiced or violation transactions to a One-Time Payment. These functions may be performed by a CSR only—and only in exception cases.

3.5 Invoices

An 'Invoices' tab shall be added to the www.bayareafastrak.org homepage and shall be visible from all areas of the Web.

3.5.1 Invoice Login

Customers shall be able to view all open invoice transactions by providing the following:

- Invoice Number
- License Plate Number
- License Plate State

Provided the customer enters a valid combination of the above fields, the Web shall display all open invoice transactions for the account. If there are no open invoice transactions for the entered invoice number, the Web shall indicate that the transactions associated with that invoice number have either been paid in full or have escalated to violation status. However, if there are open invoice transactions in the system for the same invoice "account", the Web shall give the customer the option to view those transactions.

At the invoice level, the Web shall display the following information:

- Invoice Number
- License Plate State
- License Plate Number
- Vehicle Make
- Invoice Date
- Invoice Payment Due Date
- Invoice Amount Due

Although multiple invoice transactions shall be aggregated onto a single mailing, the following shall be displayed for each transaction:

- Transaction Date
- Transaction Time
- Plaza
- Lane
- Status (Paid or Partial Paid)
- Toll Amount

3.5.2 Invoice Payment

The Web shall allow the customer to pay invoices in full only; partial payments shall not be accepted on the Web.

When the customer selects to pay, the Web shall require the following fields:

- Credit Card Information
- Email Address

The Web shall indicate that the email address will be used to send confirmation of invoice payment.

3.5.3 Customer Initiated Invoice Sweep

Invoice functionality on the Web shall allow for invoice sweeps to LP and FasTrak accounts. Customers shall be able to sweep the invoice transaction(s) to another product by providing the required account credentials.

If the customer provides credentials for a valid FasTrak account, the license plate on the invoice account shall be added to the FasTrak account with the appropriate effective date, and the invoice toll amount(s) only shall sweep to the FasTrak account at the FasTrak toll rate.

If the customer provides credentials for a LP account that has either sufficient cash balance or a valid credit card on file, the license plate on the invoice account shall be added to the LP account with the appropriate effective date, and the invoice toll amount(s) only shall sweep to the LP account at the LP toll rate.

If neither of the conditions above are true, the Web shall indicate the account information entered is not valid.

3.5.4 Invoice Transaction Dispute

The Web shall allow customers to appeal invoice transactions at the invoice level only. While an invoice is under appeal, no transactions on the invoice shall escalate to violations.

While an invoice is under appeal, the customer shall continue to receive invoices on the regular invoice mailing cycle for any new transactions. These invoices shall escalate to violation notices as usual if unpaid by the due date.

3.6 Violations

All information related to violations on the Web shall be updated to reflect the new definition of a violation on the Golden Gate Bridge—that is, no driver is a violator unless a toll invoice is not paid in full by the printed invoice due date.

The Web shall clearly indicate that all drivers must either have a tolling account or stop to pay cash on the 7 other Bay Area toll bridges; failure to do so will result in a violation notice being sent to the registered owner of the vehicle.

3.6.1 Violation Login

Customers shall be able to view all open violation transactions by providing the following:

- Violation Notice Number
- License Plate Number
- License Plate State

Provided the customer enters a valid combination of the above fields, the Web shall display all open violation transactions for the account. If there are no open violation transactions for the entered violation number, the Web shall indicate that the transactions associated with that violation number either have been paid in full or have escalated to DMV Hold or Collections. However, if there are open violation transactions in the system for the violation “account”, the Web shall give the customer the option to view those transactions.

At the violation level, the Web shall display the following information:

- Violation Number
- License Plate State
- License Plate Number
- Vehicle Make
- Violation Notice Date
- Violation Payment Due Date
- Violation Notice Amount Due

Although multiple violation transactions shall be aggregated onto a single mailing (when applicable), the following shall be displayed for each transaction:

- Violation Number
- Transaction Date
- Transaction Time
- Plaza
- Lane
- Status
- Toll Amount
- Penalty Amount
- NSF Amount
- DMV Hold Fee Amount

3.6.2 Violation Payment

The Web shall allow the customer to pay violation notices in full only; i.e. all violation transactions and penalties must be paid. Partial payments for notices shall not be allowed on the Web.

There shall be no change to the violation payment process that follows the customer selection to 'Pay Selected Violations'.

3.6.3 Customer Initiated Violation Sweep

Violations functionality on the Web shall be extended to allow for violation sweeps to new products. Customers shall be able to sweep the violation(s) toll amount(s) only to product FasTrak or LP account by providing the required account credentials.

If the customer provides credentials for a valid FasTrak account, the license plate on the violation account shall be added to the FasTrak account with the appropriate effective date, and the violation(s) toll amount(s) only shall sweep to the FasTrak account at the FasTrak toll rate.

If the customer provides credentials for a LP account that has either sufficient cash balance (GGB violations only) or a valid credit card on file (GGB and BATA), the license plate on the violation account shall be added to the LP account with the appropriate effective date, and the violation(s) toll amount(s) only shall sweep to the LP account at the LP toll rate.

If neither of the conditions above are true, the Web shall indicate the account information entered is not valid.

3.6.4 Violation Transaction Dispute

The Web shall allow customers to appeal violations at the notice level only. While a violation notice is under appeal, no transactions on the notice shall escalate to second notice / DMV hold / collections.

While a violation notice is under appeal, the customer shall continue to receive invoices on the regular invoice mailing cycle for any new transactions. These invoices shall escalate to violation notices as usual if unpaid by the due date.

SECTION III: RECONCILIATION AND REPORTING

1 General Reconciliation Requirements

The requirements in this section address the changes that will be created under AET implementation. While this section attempts to list all needed changes in comprehensive detail, the basic requirement remains the same: the RCSC shall continue to maintain its database and reports to allow the District and BATA to audit and reconcile:

- Payments to the RCSC
- Refunds from the RCSC
- Transactions generated in the lanes and sent to the RCSC
- Fees and penalties owed to the District
- Prepaid balances at the RCSC
- Deposits for District bank accounts

The RCSC shall work with the District to ensure that a complete set of changes that allows the RCSC to meet this goal under AET is specified and designed during this change order process.

Specific changes that shall be necessary include:

1. The RCSC shall report on the disposition of all invoiced transactions, allowing the District to identify invoiced transactions paid to other products (accounts and payments). The disposition of invoiced transactions shall appear on reports and be reported through the interface.
2. For each applicable transaction, the RCSC shall store the invoice date, as indicated by the mail house.
3. For each applicable transaction, the RCSC shall store a posting date—i.e. the date that a transaction posted to an invoice account, thereby becoming viewable by CSRs in Vector and eligible to be placed on an invoice. The posting date shall be used for reporting.
4. Reconciliation data shall include codes indicating the interim or final disposition of each transaction (See items # 6 and #7 below).
5. Under AET, the definition of a VTOL will not change.
6. Under AET, any transaction that posts to a FasTrak tagged account based on license plate is an ITOL.
7. The RCSC shall have new final reconciliation codes to represent the following:
 - a. Image-Based Transactions (IBT) paid to a License Plate Account (LTOL)
 - b. IBT paid by a non customer upon invoice (INVTOL)
 - c. IBT paid by a One-Time Payment (ONETOL)
 - d. IBT paid by a non customer after violation noticing
 - e. Nixie as final status
8. The RCSC shall have new interim reconciliation codes to represent the following:
 - a. Invoice Sent
 - b. Invoice Dismissed and new Invoice Sent
 - c. Second Violation Notice Sent

- d. Pre-Invoiced Transaction (a transaction posted to an invoice account, that the RCSC has validated as eligible to be placed on an invoice and is holding until the proper date in the invoice cycle)
9. Reconciliation data sent back to the District toll system shall contain the license plate number and state used to process the transaction at the RCSC.
10. The reconciliation file formats shall be modified to coincide with their descriptions in the new ICD.
11. The RCSC shall account for, report, and reconcile all financial transactions from AET, including the general ledger, subsidiary ledger, and related reports. The RCSC shall develop and describe new procedures to the District and BATA for reconciliation of the new products.
12. A separate bank account will be established for LPT accounts. All bank fees and chargebacks are to be reimbursed by GGB. (TBD where the chargeback will come from, i.e. ownership of account.) Negative balances are to be deducted against future settlement reports. New transaction-based codes will be used for LP account /OTP postings and operational procedures to transfer funds accordingly.
13. License Plate Tolling (LPT) accounts shall be clearly separate and distinguishable from FasTrak accounts. However, they will still be within the existing Regional Agency umbrella. Separation will be at the sub-GL level. LPT accounts will still be setup as FasTrak accounts. CSR, web, reports and system processing rules (statements, a/c setup) will distinguish between FasTrak & LPT accounts. Customer accounts will still fall in backend system as regional account. (Note: in addition, a separate AET GL system will also be created.)
14. LPT accounts to have their own financials including trial balance (separate from the current FasTrak® trial balance), general ledgers, settlement, reconciliation, and financial reports such as Q18, Q8M, Q13, 38G. (Note: in addition, a separate LPT GL system will also be created.)
15. LPT transactions will be Regional however they will be distinct from FasTrak transactions. This distinction can be made in the GL descriptions on the Trial Balance. Specifically, with new transaction-based codes and GL mappings.
16. Payments from the Blackstone network should be deposited into four bank accounts: 1) FT pre-paid toll, 2) violation payment, 3) LP/OTP pre-paid toll and LP/OTP post-paid toll, and 4) LPT invoice.
17. VECTOR reports will separate out transactions based on Agency, review all the LPT transactions, and assign transaction-based codes to them.

2 General Reporting Requirements

The sub sections below describe the reports necessary to support both AET and the reconciliation requirements listed in the previous section. All reports, existing and new, should be designed to support the new payment locations, products, and reconciliation requirements listed elsewhere in this requirements document. The level of detail provided is meant to allow for accurate predictions of the level of effort required for reporting changes. However, a report design phase will be necessary for the project, where participants will work out the details of layout and content for each report.

2.1 New Reports for Reconciliation

The following five (5) new reports shall be required under AET. Only the first three (3) are “critical” and hence subject to the Reporting Performance Standard (see the [Performance Standards](#) section of this document).

1. *[Critical]* The RCSC shall develop reports that allow for reconciliation with Cash Payment Network reports.
2. *[Critical]* The RCSC shall develop a monthly invoicing report that a user may choose to run by posting date, invoice date, or transaction date. The report shall show the count and amount of transactions falling into each of the following categories:
 - a. Pre-invoiced transactions
 - b. Invoiced transactions open as invoiced
 - c. Invoiced transactions paid as invoiced transactions
 - d. Invoiced transactions paid as LP tolls
 - e. Invoiced transactions paid as ITOLs
 - f. Invoiced transactions paid as One-Time Payments
 - g. Invoiced transactions paid as violations
 - h. Invoiced transactions that rejected (nixie as final status)
 - i. Invoiced transactions still open as violations
 - j. Invoiced transactions written off at the CSC
3. *[Critical]* There shall be a report that identifies the total number and dollar amount of One-Time Payments, by date of payment. The report shall also show the dollar amount of payments that have been matched to transactions and the dollar amount still unmatched as of the day of the report run. The report shall show whether the unmatched funds have been paid to the agencies, as well as the percentages of matched and unmatched funds versus the total. The report shall include a run-date in the header.
4. The RCSC shall develop a report showing non revenue usage on the Golden Gate Bridge by account and by tag number or license plate number.
5. Occasionally, the RCSC attributes transactions to the wrong vehicle due to an OCR or image review error. The RCSC shall report on these errors.
 - a. In the event that the RCSC confirms that a customer has been wrongly charged or cited because of a mistake in a LPN, the RCSC shall record the complaint and the original LPN associated with the transaction.
 - b. On a weekly basis, the RCSC shall email the list of LPNs associated with such complaints to the District in an excel file or other mutually agreed upon communication method.
 - c. The District will use the list to update the LPN watch list on its toll collection system to ensure that these LPNs are marked for manual image review when the toll collection system processes them.

2.2 Changes to Existing Reports

1. 38G – Violation Notice Payment Report – Use changes designed for Video Tolling demonstration project.
2. Q13 – Revenue Reconciliation Report – The RCSC shall alter this report to handle new products. During the design phase of the project, specific decisions will be made regarding how this report will reflect the different types of prepaid balances. If necessary, a new report similar to the Q13 shall be provided to support the new products.
3. The following reports shall be updated to reflect the new products and/or payment locations, as described elsewhere in the document:
 - a. Q15 – Transaction Reconciliation Report
 - b. Q8M – Casual Use Report (products shall be reported separately)
 - c. 5B – Account Plan Status Report (LP accounts shall be a separate account type)
 - d. V1NP – Violation Status Toll Evasions Report (the reports shall include the new interim and final status related to invoices and categories for posting to new account types)
 - e. F3M – Processor Reconciliation Report
 - f. PDR Reports – all PDR reports will include CPN payments
 - g. 48B – Receipts by Agency and Category
 - h. Q18 – Bank Wire Deposit Report
 - i. 22A – Distribution of Funds
 - j. 82F – Account Status Report
 - k. V-1001 – Violation Aging Report
 - l. V-13 – Violation Receivables Report
 - m. Q-21 – Disputes and Adjustments
 - n. Q-14 – Refund Report
2. FIN_1001 and FIN_1002 – The RCSC shall update these reports to include the new GL accounts and sub accounts, transaction types, categories, and subcategories created for AET.

2.3 Changes to Existing Non Vector Reports

1. BATA Regional Statistical Report 2011 – RCSC shall distinguish between FasTrak Accounts and LP Accounts, for both new accounts and replenishments. The RCSC shall add the CPN as a pay location. The RCSC shall add information on invoices mailed and payments received. The RCSC shall add information about One-Time Payments.
2. BATA Mail-House Tracking – RCSC shall update this report to handle all new customer communications.
3. Phone Statistics – RCSC shall update this report to reflect new phone use requirements specified in this document. The RCSC shall update this report to break down the contents further by hour, by service, or by product. In addition, the RCSC shall report on the number of transfers from 511.
4. Performance Standards – RCSC shall update the summary and supporting reports to reflect new performance standards specified in this document.

5. Website Activity – The RCSC shall update the summary report that gives information about use of the RCSC website. The RCSC shall work with the District to choose appropriate information from the detailed Web Trends report for inclusion on the summary report.

SECTION IV: PERFORMANCE STANDARDS

Revised Performance Standards Table

	Area	Performance Standard	Price Adjustment
1	Call Answering	ATTACHMENT IV-A: 80% of all calls answered within 60 seconds and 90% of all calls answered within 120 seconds. ²	2% FasTrak Account Payments
2	Order Fulfillment	Distribute 98% of tag kits within 7 business days and 100% within 10 business days. Accounts defined as Business Accounts (10 or more tags) are excluded from this measurement.	1% FasTrak Accounts Payment
3	Invoices	90% of eligible invoices sent within five business days following successful identification of registered owner name/address information through DMV lookup (i.e., five business days AFTER ACS receives a successful name/address match from DMV). 100% sent within seven business days.	1% Unregistered Transaction Payment ¹
4	Violation Notices	BATA: 99.85% of Violation Notices sent by 21 st day from image capture, pre existing measure. Images are sent by agencies no later than five days from occurrence.	2% BATA Violation Payment
		GGB: 99.85% within 21 days from the point of eligibility for noticing (currently immediately following the invoice due date, per GGB legal opinion)	2% GGB Violation Payment
5	Image Quality	License plate data entered correctly for 99% of the monthly images reviewed.	2% BATA Violation Payment 2% GGB Violation Payment
6	Correspondence	80% in 2 days; 100% in 5 days. Applies to incoming 1) customer correspondence and 2) invoice/violation disputes. Excludes post DMV Hold or Collection correspondence. ³	1% FasTrak Accounts Payment 1% BATA Violation Payment 1% GGB Violation Payment
7	Statements	98% of customer statements sent within 7 business days of anniversary date and 100% sent within 10 business days of anniversary date.	1% FasTrak Accounts Payment
8	Revenue Management	98% of cash and check payments deposited and corresponding system entries recorded within one business day; 100% of cash and check payments deposited and corresponding system entries recorded within two business days. ⁴	1% FasTrak Accounts Payment
9	Replenishment	Request 98% of credit card replenishments within 1 business day of reaching threshold with 100% requested within two business days. ⁴	1% FasTrak Accounts Payment
10	ETC Transaction Processing	99% of regular ETC transactions posted within 24 hours of receipt and 100% within 48 hours.	2% Maintenance Payment

11	IBT Transaction Processing	99% of IBT's for LP/OTP accounts posted within 24 hours of receipt and license plate identification. 100% within 48 hours.	ATTACHMENT IV-B: 2% Maintenance Payment ¹
12	Chargebacks	Charge Backs Complete investigation of 95% of credit card charge backs within three business days of report from credit card processor; 100% within seven business days.	1% FasTrak Accounts Payment
13	Reports	Reports - Performance standard is not met if more than 3 reports are late during the month, or if any one report is more than 2 weeks late. The three (3) new reports that shall be subject to this standard ("critical new reports") are indicated in the Reconciliation and Reporting section of this document.	1% FasTrak Accounts Payment
14	Tag Status File	Comprehensive tag status file sent to Agencies on time every day. Performance standard is not met if tag status file is late by more than 3 hours on more than two days in any month at either Caltrans or the GGBHTD or CTOC agencies. Home tag status file delivery time will be measured in accordance with RCSC ICD and CTOC tag file delivery will be measured in accordance with CTOC Rev G.4 Interoperability Technical Specification.	1% Maintenance Payment
15	Reciprocity	Accurately invoice reciprocal agencies by 15 th of following month.	1% FasTrak Accounts Payment
16	Inactive Accounts	Notification sent to 95% of inactive FasTrak accounts 30 days after account meets inactive threshold and 95% of inactive FasTrak accounts closed within 45 days of notification if account status has not been changed.	1% FasTrak Accounts Payment

¹ The Price Adjustment will be waived by BATA/GGB during soft launch and the first four months of AET hard launch. The parties agree to meet prior to end of this term to evaluate performance standards and modify as necessary.

² AET Call Center Adjustment Beginning with Soft Launch:

The following chart shows expected base CSR calls by month and by day-of-week, and call minutes by month and day-of-week, using statistics from 2011 and assuming a 55% IVR usage rate:

Period	Total Average # of Calls 2011	Base CSR Calls (45%)	Base Call Minutes (3:36 AHT)
Monthly	115,126	51,807	186,504
			-
Monday	5,995	2,698	9,711
Tuesday	5,068	2,280	8,209
Wednesday	4,438	1,997	7,189
Thursday	4,266	1,920	6,911
Friday	4,534	2,040	7,344

Saturday	1,903	856	3,083
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The following chart shows expected additional AET call minutes by month and daily. We assume a 19 month operational period, with two months of soft launch in the beginning:

Month	AET AHT	AET Monthly Call Volume	Monthly AET Call Minutes	AET Daily Call Volume	AET Daily Call Minutes
1	5.35	784	4,194	36	193
2	5.27	837	4,411	39	206
3	5.15	11,804	60,791	545	2,807
4	5.15	14,277	73,527	659	3,394
5	4.77	10,455	49,870	482	2,299
6	4.68	10,943	51,213	505	2,363
7	4.42	11,051	48,845	510	2,254
8	4.34	10,979	47,649	507	2,200
9	4.34	11,261	48,873	520	2,257
10	4.34	10,911	47,354	503	2,183
11	4.34	10,547	45,774	487	2,114
12	4.34	9,915	43,031	458	1,988
13	4.34	9,849	42,745	454	1,970
14	4.86	9,622	46,763	444	2,158
15	4.85	9,169	44,470	423	2,052
16	4.88	10,112	49,347	467	2,279
17	4.87	10,193	49,640	470	2,289

- During soft launch and for the first four months of hard launch, the following will be excluded from performance standards daily calculation:
 - Any day of week where actual daily call minutes exceed expected daily call minutes. Expected daily call minutes are calculated as: (average base day of week call minutes) + ([month] AET daily call minutes)
 - Any day of week where IVR usage does not equal or exceed 55 percent
- During soft launch and for the first four months of hard launch, incurred monthly performance penalty will be waived for:
 - Any month where actual monthly call minutes exceed expected monthly call minutes. Expected monthly call minutes are calculated as: (186,504) + ([Month] AET Call Minutes)
- If actual monthly call minutes during the soft launch, and for each of the first four consecutive months of the hard launch, exceeds expected, then BATA, GGB and ACS agree to renegotiate rates to meet the realized call volume for AET.

³ **AET Correspondence Adjustment Beginning with Soft Launch:** Using January through August 2011 to establish a monthly average for the incoming customer and violation mail volume, along with the change below of AET incoming mail volume assumptions, Correspondence Performance Standards are subject to the following waivers:

- During soft launch and for the first four months of hard launch, the following will be excluded from performance standards monthly calculation:
 - Any month where incoming customer correspondence (including, FasTrak, LP account and OTP) mail volumes exceed 12,000.
 - Any month where incoming violation or invoice disputes mail volumes exceed 26,000.
- If monthly mail volume during the soft launch, and for each of the first four consecutive months after hard launch, meets the criteria listed in the previous bullet, then BATA, GGB and ACS agree to renegotiate rates to meet the realized mail volume for AET.

⁴ **AET Revenue Management and Replenishment Adjustment Beginning with Soft Launch:** Using January through August 2011 to establish a monthly average for the incoming customer replenishment and violation payment mail volume, along with the change of AET incoming mail volume assumptions, Revenue Management and Replenishment Performance Standards are subject to the following waivers:

- During soft launch and for the first four months of hard launch, the following will be excluded from performance standards monthly calculation:
 - Any month where incoming customer (including, FasTrak, LP account and OTP) replenishment mail volumes exceed 6,000.
 - Any month where incoming violation or invoice payment mail volumes exceed 21,500.
- If monthly customer replenishment, violation or invoice payment incoming mail volume during the soft launch, and for each of the first four consecutive months after hard launch, meets the criteria listed in the previous bullet, then BATA, GGB and ACS agree to renegotiate rates to meet the realized mail volume for AET.

SECTION V: INTERFACE CONTROL DOCUMENT

1 CSC ICD Changes

In support of AET the only changes to be made to the current ICD are as follows:

ETC Transaction File and ETC Response File

- Change in Values – Add a new value (the number “3”) to the possible values of the Toll_TRX_TYPE field to indicate a carpool transaction.

Violation Transaction File (now called IBT Transaction File)

- Change in frequency – GGB will now send an IBT Transaction file four times daily.

Violation Reconciliation File (now called IBT Reconciliation File)

- Change in structure – Add the following two fields to the file
 - PLATE_NUMBER – A ten character field containing the License Plate Number ultimately used by the CSC to pursue the toll or violation.
 - PLATE_STATE – A four character field containing the License Plate State ultimately used by the CSC to pursue the toll or violation.
- Change in values
 - Add the following additional values to the PAYMENT_TYPE field
 - 0 – Default interim value
 - 1 – IBT posted successfully as VTOL
 - 2 – IBT posted successfully as ITOL
 - 3 – IBT posted successfully as LTOL
 - 4 – IBT posted successfully as ONETOL
 - 5 – IBT posted successfully as INVTOL
 - Add the new codes shown in the table below to the CSC_REASON_CODE field.

Code	Name	Description	State
210	ONETOL	Toll posted successfully to a One Time Payment	F
211	LTOL	Toll posted successfully to a License Plate Toll Account	F
212	INVTOL	Invoiced transaction paid as an invoice	F
213	PPINVTOL_TO_VIO	Invoiced transaction for which the RCSC received partial payment and then sent out a violation notice for the remaining balance	I
214	NIXIE_FINAL	Nixie Reject	F
215	INV_TO_ITOL	Invoiced transaction posted to a FasTrak Account	F
216	INV_TO_LTOL	Invoiced transaction paid to a LPT account	F
217	INV_TO_ONETOL	Invoiced transactions paid by a One-Time Payment	F
220	2ND_VIO_SENT	2nd Violation Notice Sent	I
221	INV_SENT	Invoice Sent	I
222	PRE_INVOICE	Transactions with LPN and address ready to be placed on invoice	I
223	2 nd _INV_SENT	Invoice dismissed and new invoice sent	I

ATTACHMENT V-A: UPDATED INTERFACE CONTROL DOCUMENT

1 Introduction

1.1 Definitions

CSC – Customer Service Center
 GGB – Golden Gate Bridge
 IBT – Image Based Toll
 ETC – Electronic Toll Collection
 LED – Latest Effective Date

1.2 Interface Files Overview

The *VECTOR-Regional BATA Interface File Specifications* document defines the formats for all files that shall be transmitted between the BATA Regional Customer Service Center application (henceforth referred to as “VECTOR”) and the GGBD Host.

The interface files allow the CSC to perform the following functions:

- Transmit tag status files to GGB at regular intervals.
- Receive regular transactions due to customers using the GGB facilities.
- Receive IBT transactions due to customers using the GGB facilities.
- Transmit reconciliation feedback to the GGB Host.

The interface files are defined in the table below:

Table 1: Interface Files

#	File Name	File Ext	File Usage	Field Separator	ACK File Created By
1	GGBD Tag Status File	ETC	<p>Created by the VECTOR application to inform the GGBD Host as to the status of each tag on the system.</p> <p>Vector will generate tag status file for CALTRANS tag range, GGBD tag range separately. Transmission from CSC to GGBD will include:</p> <ul style="list-style-type: none"> - 1 CALTRANS file - 1 GGBD file - 1 file for each of the CTOC agencies <p>All the above individual files, shall be zipped into one file before transmission to GGBD Host.</p>	',' separated and fixed length	GGBD Host

#	File Name	File Ext	File Usage	Field Separator	ACK File Created By
2	GGBD ETC Transaction File	REQ	Created by the GGBD Host to inform the VECTOR CSC of all valid tagged transactions.	',' separated and fixed length	BATA CSC
3	GGBD ETC Detailed Reconciliation File	RES	Created by the VECTOR CSC to inform the GGBD Host as to the disposition (posted or rejected) of each transaction in the corresponding REQ file. One and only one RES file will be generated for each REQ transaction file.	',' separated and fixed length	GGBD Host
4	GGBD IBT File	VIO	Created by the GGBD host to inform the VECTOR CSC of all IBTs (tagged and untagged).	',' separated and fixed length	BATA CSC
5	GGBD IBT Reconciliation File	VRES	Created by the VECTOR CSC to inform the GGBD Host as to the disposition (posted, rejected or interim state) of each transaction in the corresponding VIO file. Multiple VRES files for each VIO file.	',' separated and fixed length	GGBD Host
6	IBT Image Data File	VDF	Created by the GGB Host to inform VECTOR CSC about the details to be used to match Image to a lane transaction. This is the text IBT information used to match images with their IBT. This file is zipped with the four images	The IBT data is Fixed length	N/A
7	Acknowledgement File	ACK	Created by the Receiving System to Acknowledge that the file transmitted was received in its entirety. An Acknowledgement File shall be sent for each of the above referenced files.	Fixed length	N/A

All files are zipped.

2 General file processing requirements

All files (except for the Acknowledgement File) shall be compressed (ZIPed) using a standard Lempel-Zif compression algorithm that yields a compression rate of at least 75% (meaning a file will be reduced so that it is only 25% of its original size).

When compressed, file names shall be converted from {FILE_NAME}.{FILE_TYPE} to {FILE_NAME}_{FILE_TYPE}.ZIP. Therefore, when file "20030426100000.etc" is compressed, the compressed file shall be named "20030426100000_etc.zip".

The 32-bit Transponder ID Number Field is specified in the Title 21 standard. Refer the CTOC document (Interagency Electronic Data Interchange), section California’s Definition for Title 21’s 32-Bit Transponder ID Number field for the data field definitions of Tag Type, Facility code, and Internal Tag Id. For the facility code ranges refer to CTOC document (Interagency Electronic Data Interchange), section California Facility Code Ranges.

It shall be responsibility of the file creator to push the file to the receiving party’s drop box or to another agreed upon location. For example, in the case of tag status files, the BATA REGIONAL CSC will push the tag status file to the agreed upon location; and in the case of IBT images, it shall be the GGBD Host’s responsibility to push the images to the agreed upon location.

The first comprehensive tag status file shall be sent to the ftp Plaza Host drop box no later than 4 am. All subsequent comprehensive tag status files shall be sent at 6 hour intervals (i.e. the first tag file shall be no later than 4 am, then 10 am, 4 pm, and 10 pm).

The CSC will look for the daily CTOC comprehensive tag files on the CTOC ftp drop box, no earlier than 2 am. In the event of no file being available from any CTOC agency, the previous day’s comprehensive tag file will be used and sent to the GGBD host. The next day the latest tag file will be used to send to the GGBD host. All tag status files sent to GGB and Caltrans during the day shall include the CTOC files received by the 2 am cutoff. Any updated CTOC files received after that time will not be included in the tag status files sent to GGB and Caltrans

Hex = Hex to be treated as a Hex (base 16) number. This is the ASCII representation of hex digits. Allowable ASCII characters are “0123456789ABCDEF” (note upper case alphas). There is one ASCII character for each Hex digit and therefore two ASCII characters per binary byte, left filled with ASCII zeros. The two binary bytes of:

Most Significant Byte

MSBit				LSBit			
1	0	0	1	0	0	0	1

Least Significant Byte

MSBit				LSBit			
1	0	1	0	1	1	1	0

Would be represented in an eight character hex field as “000091AE”

- Len indicates the expected length of the field (in bytes) for certain data types or values.
- The ASCII pipe character is indicated as “|”
- The ASCII line feed character is indicated as “lf”

- The ASCII NULL character is indicated as “NULL”
- The ASCII space character is represented as “ ”

2.1 File Sanity Checks

The following validation checks shall be performed by the Agencies on each file received from the RCSC. Any files that fail the indicated validation shall be rejected as per the ICD and have the appropriate values returned to the RCSC as part of the Acknowledgement File:

#	Validation Rule	Files Affected
1.	Header record count is equal to trailer record count is equal to actual record count.	All
2.	Checksum is correct (for files that have a checksum).	NONE
3.	Filename is formatted as per ICD. Parsing error occurs.	All
4.	File can be opened/unzipped.	All
5.	Record count of file does not grow by more than 10% of previously processed file nor shrink by more than 2%. For Golden Gate Bridge the record count is the number of records for all agencies added together. For Caltrans the tag status file already represents all records for all agencies.	Tag Status File (ETC)
6.	Tags are within the defined range for the agency.	Tag Status File (Golden Gate Bridge only)

3 Transaction Interface – GGBD

The Golden Gate Bridge toll agency consists of one plaza, the Golden Gate Bridge Plaza. Toll transactions, IBT transactions and images are sent from the Lanes to the Plaza/Host in near real time. Golden Gate Bridge Host will interface with the BATA REGIONAL CSC using the Host / CSC Interfaces.

The BATA REGIONAL CSC shall send comprehensive tag status files, as defined in this ICD, to the GGBD Host. The CSC shall generate a status file for the CALTRANS tag range and GGBD tag range separately. Transmission from CSC to GGBD will include 1 CALTRANS, 1 GGBD and 1 file for each CTOC agency. All these individual files will be zipped in one file prior to sending to

GGB. The tag status files shall include all the tags in the system (Assigned or Unassigned to an Account).

As the CSC shall send the away tag status file for the GGB host, it (CSC) shall be able to perform the required audit questions if and when tolls are disputed from the other agencies.

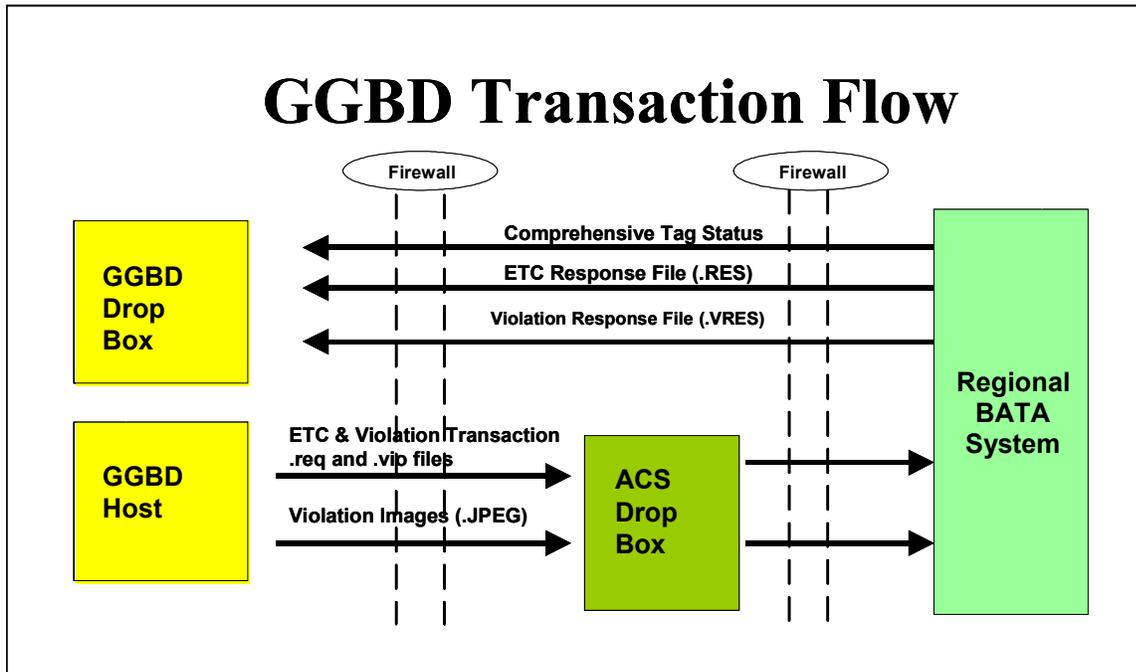


Figure 1: Interface flow between BATA Regional CSC and Golden Gate Bridge Host

GGBD Host shall send all **valid** tagged transactions to the CSC in the ETC transaction file (.req). The transaction files will be sent approximately every six hours to the CSC for processing. The CSC will respond to these transactions with an ETC Response file (.res) at regular intervals.

Golden Gate Bridge Host shall also send all IBT transactions to the CSC via the IBT Transaction file (.vio) approximately **every six hours**. (Note: the CSC is capable of processing multiple IBT files within a day). Also note that ALL IBTs, including those that may not require processing, shall be sent to the CSC. IBTs that do not require processing will be reconciled immediately and included in CSC reports. Note that the range of IBT transaction numbers and ETC transaction numbers do not overlap. Please refer to the section on General Transaction Processing rules for additional information.

Golden Gate Bridge Host shall bundle (zip) the image files for each IBT together with a text file and send the zipped file (.vdf) to the BATA REGIONAL CSC as the IBTs occur. Each transaction will have four jpeg images and a IBT data image file. The IBT data image file will allow the

Golden Gate Bridge Lane / Plaza to provide OCR image output, such as license plate information, and confidence level, to the CSC.

4 Tag Status File – GGBD

4.1 File type

This is a zip file containing the tag status files from the various agencies. Due to legacy considerations the tags with Golden Gate facility codes are separated from Caltrans tags and the status is reported in two different files.

4.2 File name

<AGENCY_CODE>_YYYYMMDD_HHMMSS_etc.zip

Example: gg_20030426_100015_etc.zip
Tag status file (for Golden Gate Tags) created at 10:00:15 on 04/26/2003

The zipped file contains the following files at this time–

Example:	gg_20030426_100001.etc	Golden Gate tag status
	at_20030426_100002.etc	Caltrans Tag Status
	srat_20041025_030205.tag	SR-91 Tag Status
	tcat_20030426_100006.tag	TCA Tag Status
	sdat_20030426_100013.tag	SANDAG Tag Status

The tag status file always includes all agencies.
Note that additional agencies may be added over time.

4.3 File use

The Tag Status File shall be created by the VECTOR CSC to inform the GGBD Host as to the status of each tag associated with an account held by BATA or CTOC customers. The CSC sends the file by 4:00AM. This file shall then be used by the GGBD Host to generate a tag status file for the GGBD lane. The CSC will generate a tag status file for CALTRANS tag range, GGBD tag range separately. Transmission from CSC to GGBD will include 1 CALTRANS, 1 GGBD, 1 each CTOC Tag File zipped as one file. Each of these files has the same structure as defined below.

File layout

Each field in the header, detail and trailer structure will be separated with Delimiter “,” comma.

Table 2: Tag Status File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	"#HEADER"
FILE_TYPE	CHAR (4)	"TAGS"
ACTION_CODE	CHAR (4)	"INIT"
SEQUENCE #	CHAR (6)	Sequence # of the Tag Status File. Values 000000 – 999999 Sequence Number will be unique per agency file. Sequence number will be incremented every time a new file is generated. For files received from away agency, the sequence number will be as received.
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. "AT" for BATA (CALTRANS AND GGBD) and corresponding CTOC agency names for the CTOC files as defined in the CTOC document sample (e.g. SR, SD, TC)
DESTINATION	CHAR (2)	Indicates the destination entity. "GG" for Golden Gate (for HOME tag files) and "AT" for CTOC tag files (Uppercase in the files.)
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	54	

Table 3: Tag Status File - Detail Structure

Field Name	Type/Size	Description/Valid Values
ETC_TAG_ID	CHAR (8)	Tag Id in HEX Values: 00000000-FFFFFFFF
ACTION_CODE	CHAR (1)	Always "A"
TAG_TYPE	CHAR (1)	Values N – Non-Revenue, V – Valid, I – Invalid
SUBTYPE_1	CHAR (1)	Values N – Default, L – Lost, S – Stolen, B – Low balance, R – Not Used
SUBTYPE_2	CHAR (1)	N – Not Used
SUBTYPE_3	CHAR (1)	N – Not Used
LINEFEED	CHAR (1)	LF
Record Total	14	

Table 4: Tag Status File - Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Record Total	33	

4.4 Processing requirements

1. The VECTOR CSC shall complete the transmission of the comprehensive tag status file to the GGBD Host drop box as defined in the ICD.
2. In the event that an invalid header record is encountered (e.g., character data in a numeric field, etc.), the GGBD Host shall reject the file and notify the VECTOR CSC via the Acknowledgement File defined in this document.
3. The RCSC will send one zipped tag status file to GGB. The zipped file will contain seven separate files (AT; GG; TCA; SNDG; SR91; SENTRI and CTV). If any of the seven individual files received are bad, GGB Host will send ACK file to the RCSC with a status of 01. GGB Host will make an attempt to process any of the individual valid files and download to the lanes as per their current processing rules. In the case of a BAD CTOC file, the GGB Host will use their existing mechanism of using the latest CTOC Tag file and ignoring the BAD CTOC file. The RCSC will log the problem upon receiving the ACK file (01) from the GGB Host. Upon received notification of an ACK file with a status of 01, the ACS System Admin will log and escalate the issue. They contact the GGB System Admin for detailed information. Once a decision has been reached appropriate action will be taken.
4. In the event that an invalid detail record is encountered (e.g., inappropriate TAG_STATUS), the GGBD Host shall skip the complete file and notify the VECTOR CSC via the Acknowledgement File. Please refer to Section 11.3 for processing rules on error data in files.
5. The GGBD Host shall perform the appropriate sanity checks on the Tag Status File prior to its transmission to the lanes. Such sanity checks should include, but not be limited to:
 - Unusual change in the number of tags from previous version
 - Unusual change in number of tags with a particular tag status
6. One form of validation by the Host could be an upper limit of 10% increase and a lower limit of 2%, as compared to previous file. This check can be lifted on notification from CSC. This can happen if the CSC receives large Tag Inventory. As per the current Business Rules, there is no reason for Tag Status file to decrease in size when compared to previous file. GGBD will perform this check on each individual file (CALTRANS range, GGBD range and on each CTOC agency files).

The table below shows how BATA populates tag status values.

Table 5: Valid Tag Status Values for GGBD Host

Item #	Tag Status	Account Status	Financial Status	Discount Plan	Regional - CSC GGBD Tag Type	Regional - CSC GGBD Sub Type 1
1	INVENTORY	N/A	N/A	N/A	I	N
2	RETURNED	N/A	N/A	N/A	I	N
3	DAMAGED	N/A	N/A	N/A	I	N

4	RETURNDEF	N/A	N/A	N/A	I	N
5	SHIPVEND	N/A	N/A	N/A	I	N
6	TESTED	N/A	N/A	N/A	I	N
7	EXPIRED	N/A	N/A	N/A	I	N
8	LOST	Active	N/A	N/A	I	L
9	STOLEN	Active	N/A	N/A	I	S
10	ACTIVE	Active	Good Balance	Standard	V	N
11	ACTIVE	Active	Low Balance (Cash/Check)	Standard	V	B
12	ACTIVE	Active	Zero Balance (Cash/Check)	Standard	I	B
13	ACTIVE	Active	Revoked Warning (Cash/Check)	Standard	I	B
14	ACTIVE	Active	Good Balance	Non Revenue	N	N
15	ACTIVE	Active	Low Balance (Cash/Check)	Non Revenue	N	N
16	ACTIVE	Active	Zero Balance (Cash/Check)	Non Revenue	N	N
17	ACTIVE	Active	Revoked Warning (Cash/Check)	Non Revenue	N	N
18	N/A	Closed Pending	N/A	N/A	I	N

Table 6: CTOC Tag Status Mapping Values for GGBD Host

Item #	CTOC Tag Type	CTOC Sub Type 1	Regional - CSC GGBD Tag Type	Regional - CSC GGBD Sub Type 1
1	N – Non Revenue (Universal to all entities)	N – Not Used	N – Non Revenue	N
2	V – Valid	N – Not Used	V – Valid	N
3	I – Invalid	N – Not Used	I – Invalid	N

4.5 Sample files

CALTRANS Tag File for GGB Lanes

at_20040508_100002.etc

#HEADER,TAGS,INIT,000967,05/08/2004,at,gg,05/08/2004,22:45:03

OFE00001,A,V,N,N,N

OFE00006,A,V,N,N,N

OFE00008,A,V,N,N,N

OFE0000A,A,I,L,N,N

.

.

#TRAILER,000967,05/08/2004,00315464

SR-91 Tag File for GGB Lanes

srat_20041025_030205.tag

#HEADER,TAGS,INIT,000907,05/08/2004,sr,at,05/08/2004,22:45:03

08100000,A,V,N,N,N

08100001,A,V,N,N,N

08100002,A,V,N,N,N

08100003,A,V,N,N,N

.
.

#TRAILER,000907,05/08/2004,00315464

5 ETC Transaction File – GGBD

5.1 File type

Variable length, LF delimited

5.2 File name

YYYYMMDDHHMMSS.REQ

Example: 20020928044100.req
 GGBD transactions to VECTOR CSC created at 04:41:00 on 09/28/02

5.3 File use

The Transaction File shall be created by the GGBD Host to inform the VECTOR CSC of all Valid ETC toll transactions occurring at GGB lanes. This file shall contain tagged transactions on GGBD lanes due to BATA customers or CTOC customers with valid statuses.

5.4 File layout

Each field in the header, detail and trailer structure will be separated with Delimiter “,” comma.

Table 7: ETC Transaction File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	"#HEADER"
FILE_TYPE	CHAR (4)	"REQ"
SEQUENCE #	CHAR (6)	Sequence # of the Transaction File. This unique number is incremented for every file. Values 000000 – 999999 Assigned plaza wide by the database
BUSINESS_DATE	CHAR (10)	This field will be populated with the transaction date of the first transaction in the file. Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. "GG" for Golden Gate
DESTINATION	CHAR (2)	Indicates the destination entity. "AT" for BATA
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Table 8: ETC Transaction File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique transaction number for each ETC transaction. Used to identify the transaction in the ETC reconciliation process. Values 0000000000 to 9,999,999,999 Assigned plaza wide by the database.
TOL_TRX_TYPE	CHAR (1)	Type of transaction. 1 – ETC. 3 – Carpool
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143 Middle eighteen bits of tag data
TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = "GGB"
TOL_LANE_ID	CHAR (2)	The lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99. (01 through 11)
TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements. Equal to when the vehicle is moved to toll terminal queue position 3 (Exit light curtain two)
TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements. Equal to when the vehicle is moved to toll terminal queue position 3 (Exit light curtain two)

Field Name	Type/Size	Description/Valid Values
TOL_FARE_ETC_AMT	CHAR (5,2)	The toll due as calculated by the GGBD Lane / Host. This is the amount to be posted to the ETC home or away account, posting by Tag or Plate. Values in pennies: 00000 (\$000.00) – 99999 (\$999.99). This number is modified to reflect the appropriate toll for the TOL_TRX_TYPE above.
TOL_FARE_CASH_AMT	CHAR (5,2)	The toll due as calculated by the GGBD Lane / Host. Values: Always 00000
TOL_MSG_FLAG	CHAR (2)	The message buffer status flag. This field indicates whether or not a transaction was buffered. Values: 00-99. 1 – Toll packet transaction. 2 – Buffered tag transaction
TOL_AVC_CLASS	CHAR (2)	The class of the vehicle involved in the transaction. This field shall contain AVC class or as overridden by the collector classification. Values: Default 02
LANE_TX_SEQUENCE_NUMBER	CHAR (8)	The unique vehicle transaction sequence number generated by lane (Lane sequence number). Values:00000000 – 99999999
TOL_TAG_STATUS	CHAR (1)	The status of the tag at the time of the transaction. Values: 0 – Invalid 1 – Good 2 – Lost 3 – Stolen 4 – Low Balance 8 – Non-revenue vehicle (NRV)
TOL_DST_FLAG	CHAR (1)	The daylight savings time. The contents of this field shall be used to govern certain processing rules at the VECTOR CSC This field will always be an asterisk (*)
TOL_TRX_SPEED	CHAR (3)	The vehicle speed as reported by the lane in MPH. Values 000 – 999
VIOL_NUMBER/ORIG_TRX_NUMBER	CHAR (10)	0000000000 Always
RESOLV_CODE	CHAR (2)	00
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Table 9: ETC Transaction File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
DETAIL_TRANS_AMOUNT	CHAR (10)	Total Amount of the Amount Due field for all the transactions in the file

Field Name	Type/Size	Description/Valid Values
LINEFEED	CHAR (1)	LF
Trailer Total	43	

5.5 Processing requirements

1. The VECTOR CSC shall receive and process ETC Transaction Files from the GGB Host approximately every six hours.
- ~~2. Please refer to Appendix D for all transaction processing rules.~~
3. ETC transactions in this file will have a unique transaction number for each record in the file.
- ~~4. All transactions coming in this interface will be processed and the resolve code values will be ignored.~~
5. Vector CSC can process multiple tol_trx_type in a single file. The VECTOR CSC shall ensure upon processing that the ETC Transaction File does not contain two (or more) transactions for the same TOL_TAG_ID/TOL_TAG_AGENCY_ID combination in the same TOL_PLAZA_ID/TOL_LANE_ID within a one (1) minute period. However, this parameter shall be configurable at the VECTOR CSC based on business rule decisions between the VECTOR CSC and GGB Host.
6. The VECTOR CSC shall perform sanity checks on the ETC Transaction File to look for formatting errors, record count mismatch between header and detail records etc. In the event the file fails on these sanity checks, the VECTOR CSC shall notify the GGB Host of the anomaly by means of the acknowledgment file.
7. If the VECTOR CSC determines an error in a detail record, the VECTOR CSC shall reject the transaction record with the error and process the remainder of the transaction file and notify the GGB Host of the error via the acknowledgment file. The ACK file shall have a corresponding error code indicative of an error.
8. The VECTOR CSC shall not compute toll amounts for ETC transactions received from the GGB Host. The toll amount calculated at the GGB Host as supplied in the TOL_FARE_ETC_AMT field of the transaction file shall be used to debit the BATA Regional CSC accounts. This shall include transactions due to non-revenue customers also (since GGB Host would send 00000 in the TOL_FARE_ETC_AMT field).
9. VECTOR has the capability of rejecting transaction based on the age of the transaction. VECTOR will set 180 days for all incoming transactions from Away Agency (TCA, SR91 or SNDG) and 365 days for all incoming transactions from Home Agencies (CALTRANS and GGBD). This value can be changed on BATA direction.
10. TOLL_DST_FLAG is not part of the unique key for toll transactions and there shall not be any duplicate values as a result of asterisks (*). Added to ICD 1.4.1

11. The CSC will not change processing of a transaction based on values in the TOL_TRX_TYPE and TOL_TAG_TYPE fields.

ACS will calculate the Business Date based on 00:00:00 to 23:59:59 time range

5.6 Sample file

20040202222030.req

```
#HEADER,REQ,000001,02/02/2004,GG,AT,02/02/2004,22:20:30
0000001234,1,1022,133015,GGB,01,02/02/2004,19:20:30,00350,00000,01,02,00001234,1,*,005,0000000000,00
0000001234,1,0002,133015,GGB,02,02/02/2004,19:21:10,00450,00000,01,02,00012340,1,*,015,0000000000,00
0000001234,1,0099,133015,GGB,03,02/02/2004,19:22:20,00350,00000,01,02,00011264,1,*,018,0000000000,00
0000001234,1,1000,133015,GGB,04,02/02/2004,19:23:30,00300,00000,01,02,00011434,1,*,020,0000000000,00
0000001234,1,0012,133015,GGB,05,02/02/2004,19:23:30,00550,00000,01,02,00041434,1,*,005,0000000000,00
#TRAILER,000001,02/02/2004,00000005,0000002000
```

6 ETC Response File – GGBD

6.1 File type

Variable length, LF delimited

6.2 File name

YYYYMMDDHHMMSS.RES

Example: 20020928044100.res Created at 04:41:00 on 09/28/02
Transaction Reconciliation file from VECTOR CSC to GGBD Host

6.3 File use

The VECTOR CSC shall create an ETC Response File back to the GGBD Host, for each transaction (.req) files received.

6.4 File layout

Each field in the header, detail and trailer structure will be separated with delimiter “,” comma.

Table 10: ETC Response File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	"#HEADER"
FILE_TYPE	CHAR (4)	"RES "
SEQUENCE #	CHAR (6)	Sequence # of the original Transaction File. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	The date send in the .req header record, in the BUSINESS_DATE column, will be sent back in this field.
SOURCE	CHAR (2)	Indicates the destination entity. "AT" for BATA
DESTINATION	CHAR (2)	Indicates the file-creating agency. "GG" for Golden Gate
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Table 11: Response File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique transaction number for which this record is a response. Values 0000000000 to 9,999,999,999
TOL_TRX_TYPE	CHAR (1)	Type of transaction. "1" = ETC (full fare) "3" = Carpool Echo of the corresponding field in the ETC transaction file.
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143
TOL_POSTED_DATE	CHAR (10)	This is the Date the transaction was processed (Posted or Rejected) on the CSC / Away Agency. Format: MM/DD/YYYY
TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = "GGB"
TOL_LANE_ID	CHAR (2)	The lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.
TOL_FARE_POSTED_AMT	CHAR (5,2)	This is the amount posted to the ETC home or away account, posting by Tag . Values: 00000 (\$000.00) – 99999 (\$999.99)
NON_REVENUE_FLAG	CHAR (2)	This field indicates if the transaction was posted against Non Revenue account. Values: 00 – Default Value 01 – Non Revenue Account
PAYMENT_TYPE	CHAR (1)	A – Toll posted successfully to ETC account. E – An Exception occurred while trying to post this toll.

Field Name	Type/Size	Description/Valid Values
CSC_REASON_CODE	CHAR (3)	Reason toll was not posted. CSC generates this code from its own internal processing and it is sent to the GGBD Plaza Host for reference. Values 000 – 999. A detailed listing of the various reason codes is provided in the Appendix.
BUSINESS_DATE	CHAR (10)	The actual business date of the transaction. This field would identify the revenue date of the transaction. Not used at GGB Format: MM/DD/YYYY
CSC_BATCH	CHAR (10)	This will be used to reconcile CSC and GGBD Plaza Host revenue numbers. This field will contain the original file id (extern_file_id), to map the file in which this transaction was received at the CSC. The contents of this field shall be left padded with zeros. Values: 0000000000 – 9999999999 Not used at GGB
CSC_ACCT_NO	CHAR (16)	VECTOR CSC account number assigned to BATA customers. For CTOC customers, the following is a static value for each agency 0000000000000098 - SR 91 0000000000000097 - SANDAG 0000000000000096 - TCA 0000000000000095 - CTV 0000000000000094 – SENTRY Stored in the GGB Database
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Figure V-2 ETC Response File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
FILE_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Trailer Total	33	

6.5 Processing requirements

1. For each transactions received at the VECTOR CSC, via the ETC Transaction File, the CSC shall send back a transaction level response to the GGB Host in the reconciliation file.
2. All regular transactions TOL_TRX_TYPE = 1 (ETC) received by the CSC will be reconciled back with final status code. The reconciliation will be at file level. For example, if the CSC receives 100 transactions in file 123, the same 100 transactions shall be reconciled back to GGBD in one file.

3. The CSC will produce reconciliation within 9 hours of receipt of transaction file and shall produce reconciliation files by 10am each day for the previous day's files.
4. The VECTOR CSC shall reconcile all Away Transactions with Expected Revenue and not wait for reconciliation file from Away Agency. However, in the event the transactions are rejected by the Away agency for any reason, the revenue delta shall be reflected through Reports.
5. In cases when a transaction cannot be posted at the VECTOR CSC, the VECTOR CSC shall indicate the reason, the transaction was not posted in the CSC_REASON_CODE field. The possible reason codes and the description are provided below.
6. The CSC will generate an ACK file for each ETC file that it receives from the GGB Host.
7. GGB will periodically poll the area ACK files are transferred to the Host by the CSC. When GGB Host receives an ACK file, the GGB Host shall update the GGB database. If the ACK file shows a FAILURE code, the GGB Host will regenerate and resend the original file. The GGB Host will maintain a failure count, and after 3 concurrent failures of a single file an email will be sent to the GGB System Operators.
8. If GGB Host does not receive an ACK file within 2 hours of transmitting an ETC or VIO file to the CSC, GGB Host will generate an email to the CSC and GGB System Operators. Another email will be sent every 2 hours to a designated list escalating the issue until the situation is resolved.
9. GGB will periodically poll the area where the CSC places new .res files. When GGB finds a new file, it will load the file and perform certain validations. In all cases the GGB Host will generate an ACK file and transmit this back to the CSC. The ACK file will contain a SUCCESS code (value 0) if the recon file passed validation and was sent to the lanes or a FAILURE code (value 01) if the recon file failed validation.
10. A .Res file will always be ACKED with a FAILURE code if it is received before the ACK file for the corresponding ETC Transaction File (req). If a .res is not received within 9 hours or by 10 am for the previous day's files, the GGB Host will automatically send an email to the CSC and GGB Sysops stating the "recon file is late or missing". This check will be repeated every 2 hours and an email will be sent to a designated list escalating the issue until the situation is resolved.

6.6 CSC Reason Codes (ETC Transactions)

The following list indicates the possible responses in the .res file to transactions sent to the CSC in the .etc file.

List of codes applicable to HOME tag transactions as received in the ETC file.		
CSC Reason Code	Status	Description

01	TOLL	Home Agency toll posted successfully as a normal ETC transaction. This is the only response indicating a valid ETC transaction.
11	TAGINV	Tag Inventory - Tag is currently in the Vector's Inventory status. This status indicates that Tag is in CSC. Any transactions received on a tag will be a IBT transaction and go through the IBT processing system.
12	TAGLOST	Tag Lost – The tag was reported lost to the CSC before the time of the transaction.
13	TAGSTOLEN	Tag Stolen – The tag was reported stolen to the CSC before the time of the transaction.
14	TAGRETURNED	Tag in shipping, Returned Defective, Tag Returned
15	TAGDAMAGED	Tag Damaged
16	INVTAG	Invalid tag
22	DUPL	Duplicate transaction – transaction occurred on the same plaza/lane for a given device at the same date/time.
24	INVACC	Invalid Account
25	INVACCLSP	Invalid Account Closing Pending
26	INVACPEND	Invalid Account Pending
27	INVACRVKF	Invalid Account Revoked Final
28	INVACCLOS	Invalid Account Closed
29	POACHING	Poaching transaction – transaction occurred on same tag and date and time within 5 minutes on the same lane.
31	XLANE	Cross Lane transaction – transaction occurred on same tag and date and time on the same plaza but a different lane.
51	QINVPLAZA	Transaction rejected as invalid due to an invalid plaza
52	QINVDATE	Transaction rejected as invalid due to invalid date
53	QINVAGENCY	Transaction rejected as invalid due to invalid agency code
54	QNONVTRX	Unpostable ETC txn - Invalid tag/account status
List of codes applicable to CTOC tag transactions as received in the ETC file.		
CSC Reason Code	Status	Description
06	POST	Transaction posted successfully to a CTOC Agency account due to a tag read at the lanes.
43	TAGB	Transaction happened on a tag with a bad status
45	RJDP	Transaction rejected as duplicate – CTOC transaction occurred on the same plaza/lane for a given device at the same date/time.
46	OLD1	Transaction rejected – Attempt to post the

		transaction to a closed account after the specified posting limit – 30 days or 60 days (configurable).
48	RINV	Transaction rejected as invalid due to invalid detail data – i.e. if the tag in the transaction is out of range etc.

6.7 Posting/reconciliation scenarios for .res file

This section details the different conditions in which a transaction can be received at the VECTOR CSC from the GGB Host, and various ways the VECTOR CSC shall process the transaction, and how the transaction shall be reconciled back to the GGB Host.

Scenario	Tag Status	Posting Status	RES File Contents
Normal tagged transaction. Tag status file generated at CSC and loaded correctly at the lanes.	Valid	CSC receives transaction with TOL_TRX_TYPE = 1. CSC determines the account has the right financial status and posts the transaction	CSC reconciles transaction to Host with following information. PAYMENT_TYPE = A CSC_REASON_CODE = 01
CTOC tagged transaction. Tag status file generated at CSC and loaded correctly at lanes.	Valid	CSC receives transaction with TOL_TRX_TYPE = 1. CSC determines this is a valid tag in a CTOC file and posts the transaction.	CSC reconciles transaction to Host with following information. PAYMENT_TYPE = A CSC_REASON_CODE = 06
Normal tagged transaction. Tag status file generated at CSC and loaded correctly at the lanes.	Valid	CSC receives transaction with TOL_TRX_TYPE = 1. CSC determines that an identical transaction exists in the file.	CSC reconciles transaction to Host with following information. PAYMENT TYPE = E CSC REASON CODE = 22
Tagged transaction. Tag status generated at CSC shows tag	Valid at GGB lanes (since transaction happened before tag	CSC receives transaction with TOL_TRX_TYPE = 1 in REQ file. CSC determines that	CSC reconciles transaction to Host with following information in the RES file. PAYMENT_TYPE= A and CSC_REASON_CODE=01

as valid. However customer reports tag as LOST after transaction happened.	was reported LOST)	the tag was on the account at the time of the transaction and hence posts the transaction (provided the financial status on the account is good).	
--	--------------------	---	--

6.8 Sample File

20040203043030.res

```
#HEADER,RES ,000001,02/02/2004,AT,GG,02/03/2004,043030
000000789,1,1022,133015,02/03/2004,GGB,01,00350,00,1,000,02/02/2004,0012300443, 0000000000115678
000000790,1,0002,133015,02/03/2004,GGB,02,00450,00,1,000,02/02/2004,0012300443, 0000000000118907
000000791,1,0099,133015,02/03/2004,GGB,03,00350,00,1,000,02/02/2004,0012300443, 0000000000147988
000000792,1,1000,133015,02/03/2004,GGB,04,00300,00,1,000,02/02/2004,0012300443, 0000000000100964
000000793,1,0012,133015,02/03/2004,GGB,05,00550,00,1,000,02/02/2004,0012300443, 0000000000135475
#TRAILER,000001,02/03/2004,00000005
```

7 IBTs Transaction File - GGBD

7.1 File type

Variable length, LF delimited

7.2 File name

YYYYMMDDHHMMSS.VIO

Example: 20020928044100.vio

GGBD IBT transactions to VECTOR CSC created at 04:41:00 on 09/28/02

7.3 File use

The IBT Transaction File is created by the GGBD Host to inform the VECTOR CSC of all IBT transactions occurring at GGBD lanes.

7.4 File layout

Each field in the header, detail, and trailer structures will be separated with Delimiter “,” comma.

Table 12: IBT Transaction File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“VIO ”
SEQUENCE #	CHAR (6)	Sequence # of the IBT transaction File. This unique number is incremented for every file. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	This field will be populated with the transaction date of the first transaction in the file. Format MM/DD/YYYY
SOURCE	CHAR (2)	Indicates the file-creating agency. “GG” for
DESTINATION	CHAR (2)	Indicates the destination entity. “AT” for BATA
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Table 13: IBT Transaction File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique IBT transaction number for each transaction. Used to identify the IBT transaction in the reconciliation process. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Type of transaction. 2 – IBT
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. Values: 0000-1023 Default this field to asterisks (*) for all IBTs with no tag reads.
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. Values: 000000-262143 Default this field to asterisks (*) for all IBTs with no tag reads.
TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements to indicate the place of occurrence of the transaction. Value = “GGB”
TOL_LANE_ID	CHAR (2)	The lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements to indicate the point of occurrence of the transaction. Values = 00 – 99.

Field Name	Type/Size	Description/Valid Values
TOL_TRX_DATE	CHAR (10)	The date of the occurrence of the transaction at TOL_LANE_ID. Format: MM/DD/YYYY. This toll transaction date information shall be shown on customer statements.
TOL_TRX_TIME	CHAR (8)	The time of the occurrence of the transaction at TOL_LANE_ID. Format: HH:MM:SS. This toll transaction time information shall be shown on customer statements.
TOL_FARE_ETC_AMT	CHAR (5,2)	The toll due as calculated by the GGBD Lane / Host. This is the amount to be posted to the ETC home or away account in the event of a VTOL (tag associated with ETC account became valid at time of posting) or ITOL (plate is associated with a valid account). Values: 00000 (\$000.00) – 99999 (\$999.99)
TOL_FARE_CASH_AMT	CHAR (5,2)	The toll due as calculated by the GGBD Lane / Host. This amount should be used for Image based tolls (except for ITOLS above). This amount includes only the toll amount. Values: 00000 (\$000.00) – 99999 (\$999.99)
TOL_MSG_FLAG	CHAR (2)	The message buffer status flag. This field indicates whether or not a transaction was buffered. Values: 00-99. 1 – Toll packet transaction. 2 – Buffered tag transaction Not used at GGB
TOL_AVC_CLASS	CHAR (2)	The class of the vehicle involved in the transaction. This field shall contain AVC class.
LANE_TX_SEQUENCE_NUMBER	CHAR (8)	The unique vehicle transaction sequence number generated by lane (Lane sequence number). Values:00000000 – 99999999
TOL_TAG_STATUS	CHAR (1)	The status of the tag (if applicable) at the time of the transaction. Values: 0 - Invalid 1 – Good (should not appear in this file) 2 – Lost 3 – Stolen 4 – Low Balance (should not appear in this file) 8 – Non-revenue vehicle (NRV) (should not appear in this file) If no tag, this value is the same as is used currently.
TOL_DST_FLAG	CHAR (1)	The daylight savings time. The contents of this field shall be used to govern certain processing rules at the VECTOR CSC Not used, always “*”.
TOL_TRX_SPEED	CHAR (3)	The transaction speed as reported by the lane. Values 000 – 999 Calculated but not used at the GGB.
VIOL_NUMBER/ORIG_TRX_NUMBER	CHAR (10)	For an IBT transaction, this will hold the original transaction number. Not used. Should be all zeros 0000000000.

Field Name	Type/Size	Description/Valid Values
RESOLV_CODE	CHAR (2)	<p>The codes the CSC will receive are: 02 – IBT that needs to be processed at the CSC</p> <p>The following codes are an indication to the CSC not to process the IBT. These are not used at GGB under AET; i.e. always 02</p> <p>90 – equipment problems 91 – when light curtain breaks, and this IBT is a trailer 92 – miscellaneous write-off – documented and tracked by Revenue Audit 93 – vehicle backed up 94 – non revenue violator/CHP as documented by Bridge Officer during tour 95 – late commit carpool as documented by Bridge Officer during tour 96 – late commit cash paid as documented by Bridge Officer during tour 97 – late commit handicap, or disabled card that did not read as document by Bridge Officer 98- Paid on Import (via the ETC Interface) 99 – miscellaneous write-off – reported by Bridge Officer, documented and tracked by Revenue Audit</p>
LINEFEED	CHAR (1)	LF
Detail Record Total	84	

Table 14: IBT Transaction File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
BUSINESS_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
DETAIL_TRANS_AMOUNT	CHAR (10)	Total Amount of the Amount Due field for all the transactions in the file
LINEFEED	CHAR (1)	LF
Trailer Total	43	

7.5 Processing requirements

1. The VECTOR CSC is capable of receiving and processing IBT Transaction Files from the GGB Host multiple times a day.

2. The VECTOR CSC shall perform sanity checks on the IBT Transaction File to look for formatting errors, record count mismatch between header and detail records etc. In the event the file fails on these sanity checks, the VECTOR CSC shall notify the GGB Host of the anomaly by means of the acknowledgment file.
3. If the VECTOR CSC determines an error in a detail record, the VECTOR CSC shall reject the transaction record with the error, process the remainder of the transaction file, and notify the GGB Host of the error via the acknowledgment file. The ACK file shall have a corresponding error code indicative of the error.
4. The VECTOR CSC shall follow the rules for fare use shown in the field description and in the processing rules for GGB.
5. VECTOR has the capability of rejecting transaction based on the age of the transaction. VECTOR will set 180 days for all incoming transactions from Away Agency (TCA, SR91 or SNDG) and 365 days for all incoming transactions from Home Agencies (CALTRANS and GGBD). This value can be changed on BATA direction.
6. GGB's business day is identical to the calendar day.

ACS

7.6 Sample File

20040202224030.vio

```
#HEADER,VIO ,000001,02/02/2004,GG,AT,02/02/2004,22:40:30
0000002556,2,* ,* ,GGB,01,02/02/2004,10:13:30,00350,00350,01,02,00005697,0,* ,015,0074568464,02
0000002557,2,* ,* ,GGB,02,02/02/2004,12:56:10,00450,00450,01,02,00059624,0,* ,005,0098573645,02
0000002558,2,* ,* ,GGB,03,02/02/2004,13:46:20,00350,00350,01,02,00012856,0,* ,020,0009586867,02
0000002559,2,* ,* ,GGB,04,02/02/2004,15:23:30,00300,00300,01,02,00097843,0,* ,014,0000036455,02
0000002560,2,* ,* ,GGB,05,02/02/2004,19:19:19,00550,00550,01,02,00069568,0,* ,012,0000045756,02
#TRAILER,000001,02/02/2004,00000005,0000002000
```

8 IBT Reconciliation File – GGBD

8.1 File type

Variable length, LF delimited

8.2 File name

YYYYMMDDHHMMSS.VRES

Example: 20020928044100.vres Created at 04:41:00 on 09/28/02
 IBT Reconciliation file from VECTOR CSC to GGBD Host

8.3 File use

The VECTOR CSC shall create an IBT Response File and send it back to the GGBD Host, by calendar day. This file shall be used to send final and interim status on IBT transactions.

8.4 File layout

Each field in the header, detail and trailer structure will be separated with delimiter “,” comma.

Table 15: IBT Response File – Header Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (7)	“#HEADER”
FILE_TYPE	CHAR (4)	“VRES ”
SEQUENCE #	CHAR (6)	Sequence # of the original IBT transaction File. Values 000000 – 999999
BUSINESS_DATE	CHAR (10)	The date send in the .vio header record, in the BUSINESS_DATE column, will be sent back in this field.
SOURCE	CHAR (2)	Indicates the file-creating agency. “AT” for BATA
DESTINATION	CHAR (2)	Indicates the destination entity. “GG” for Golden Gate
CREATE_DATE	CHAR (10)	Indicates the file creation date. Format MM/DD/YYYY
CREATE_TIME	CHAR (8)	Indicates the file creation time. Format HH:MM:SS
LINEFEED	CHAR (1)	LF
Header Total	50	

Table 16: IBT Response File – Detail Structure

Field Name	Type/Size	Description/Valid Values
TRANSACTION_NUMBER	CHAR (10)	Unique transaction number for which this record is response. Values 0000000000 to 9999999999
TOL_TRX_TYPE	CHAR (1)	Response for the type of transaction received by CSC. 2 – IBT
TOL_TAG_ID	CHAR (4)	This field consists of the ETC Internal Tag ID, in accordance with Title-21 specs. This is an echo of the corresponding field in the IBT transaction if the IBT transaction had an associated tag. Values: 0000-1023
TOL_TAG_FACILITY_ID	CHAR (6)	This field comprises of the Facility code of the Issuing agency. This is an echo of the corresponding field in the IBT transaction if the IBT transaction had an associated tag. Values: 000000-262143
TOL_POSTED_DATE	CHAR (10)	This is the Date the transaction was processed (Posted or Rejected) on the CSC / Away Agency. Format: MM/DD/YYYY

Field Name	Type/Size	Description/Valid Values
TOL_PLAZA_ID	CHAR (3)	The plaza code of the agency at which the transaction occurred. This information shall be shown on customer statements/notices to indicate the place of occurrence of the transaction. Value = "GGB"
TOL_LANE_ID	CHAR (2)	The lane ID at the plaza where the transaction occurred. The information from this field shall be used on customer statements/notices to indicate the point of occurrence of the transaction. Values = 00 – 99.
TOL_FARE_POSTED_AMT	CHAR (5,2)	This is the amount posted to the ETC home or away account, posting by Tag or Plate, the amount posted to the LP Account or One-Time Payment, or the amount received for the transaction when an invoice or violation is paid. This field will not be used until the CSC receives actual payment for the transaction. Values: 00000 (\$000.00) – 99999 (\$999.99)
VIOL_PAYMENT_FEE	CHAR (5)	This is the amount of fees and penalties received at the CSC for IBTs that were escalated to violation noticing.
NON_REVENUE_FLAG	CHAR (2)	This field indicates if the transaction was posted against Non Revenue account. Values: 00 – Default Value 01 – Non Revenue Account
PAYMENT_TYPE	CHAR (1)	0 – Default interim value Final Values 1 – IBT posted successfully as VTOL 2 – IBT posted successfully as ITOL. 3 – IBT posted successfully as LPTOL 4 – IBT posted successfully as ONETOL. 5 – IBT posted successfully as INVTOL. V – IBT that did not receive payment from any method above. E – An Exception occurred while trying to post this toll.
CSC_REASON_CODE	CHAR (3)	Interim and final status updates regarding the transaction. CSC generates this code from its own internal processing and it is sent to the GGBD Plaza Host for reference. Values 000 – 999. A detailed listing of the various reason codes is shown below
BUSINESS_DATE	CHAR (10)	The actual business date of the transaction. This field would identify the revenue date of the transaction. Format: MM/DD/YYYY. Not used at GGB
CSC_BATCH	CHAR (10)	This will be used to reconcile CSC and GGBD Plaza Host revenue numbers. This field will contain the original file id (extern_file_id), to map the file in which this transaction was received at the CSC. The contents of this field shall be left padded with zeros. Values: 0000000000 – 9999999999 Not used at GGB
PLATE_NUMBER	CHAR (10)	Plate Number of the vehicle as determined by the CSC per the IMAGE_REVIEW_STATUS above.
PLATE_STATE	CHAR (4)	Plate State of the vehicle as determined by the CSC per the IMAGE_REVIEW_STATUS above.
LINEFEED	CHAR (1)	LF
Detail Record Total	87	

Figure V-3 IBT Response File – Trailer Structure

Field Name	Type/Size	Description/Valid Values
RECORD_TYPE	CHAR (8)	"#TRAILER"
SEQUENCE #	CHAR (6)	Same as Header
FILE_DATE	CHAR (10)	File creation date, Format MM/DD/YYYY
DETAIL_COUNT	CHAR (8)	Total count of all detail records
LINEFEED	CHAR (1)	LF
Trailer Total	33	

8.5 Processing requirements

1. All transactions received at the VECTOR CSC via the IBT Transaction File shall be sent back to the GGB Host in the reconciliation file.
2. All IBT transactions received by the CSC will be reconciled back with an interim code of 100. The first of many reconciliations will be at file level. For example, if the CSC receives 100 transactions in file 123, the same 100 transactions shall be reconciled back to GGBD in one file. In order to accommodate GGB Host operational requirements, the VECTOR CSC will reconcile all GGB transaction files by 10 am the following day.
3. The CSC will produce reconciliation within 9 hours of receipt of transaction file and will produce reconciliation files by 10am each day for the previous day's files. The check for receipt of reconciliation files by GGB should be performed no earlier than 10:30am for the previous day's transaction files. This check will be repeated every 4 hours.
4. The VECTOR CSC shall perform transaction reconciliation at a detail level; i.e. the reconciliation file shall contain details at the transaction level instead of a reconciliation summary.
5. As each IBT transaction in a file moves through CSC's IBT transaction processing flow, the CSC will send interim reconciliation codes reflecting the current status of the transaction. A .vres file containing the sequence number of the corresponding original .vio file will be sent on each day updates occur to any transaction(s) in the original file. Updates can occur to the following fields in an IBT transaction:
 - TOL_POSTED_DATE
 - TOL_FARE_POSTED_AMT
 - TOL_FARE_USED
 - VIOL_PAYMENT_FEE
 - NON_REVENUE_FLAG
 - PAYMENT_TYPE
 - CSC_REASON_CODE
6. The CSC shall populate the TOL_FARE_POSTED_AMT only when it receives payment for a transaction. If the CSC receives partial payment for a transaction, the CSC will

populate the field with that amount for the reconciliation file in which the CSC reports that partial payment. If the CSC continues to attempt to collect funds on the transaction, the CSC should use an appropriate interim status code. In subsequent reconciliation updates, the TOL_FARE_POSTED_AMT should be set back to zero. When the CSC collects further funds for the transaction, the CSC should populate the TOL_FARE_POSTED_AMOUNT with new amount received and the appropriate status code. This process should continue until the CSC assigns a final status code to the transaction.

7. When a transaction pays as a violation, the CSC shall populate the TOL_FARE_POSTED_AMT and VIOL_PAYMENT_FEE fields.

8.6 CSC Reason Codes (IBTs)

Reason Codes for IBT Transactions. State indicates Final (F) or Interim (I)			
Code	Name	Description	State
02	VTOL	Home Agency toll posted successfully as a ETC IBT transaction	F
09	ITOL	Home Agency toll posted successfully to a valid account using license plate information.	F
100	VCSCRCV	IBT transaction received at CSC	I
101	VCSCIMGREV	IBT image reviewed at CSC	I
102	VIMGREVRJT	IBT transaction rejected after image review	F
103	VPOSTCSC	IBT transaction postable to account at CSC	I
107	VDMVS	IBT transaction sent to DMV for identification and address	I
108	VDMVR	IBT transaction received from DMV with identification and address	I
109	VDMVRJT	IBT transaction rejected after DMV request (maybe name and address unavailable)	F
110	VCITE	IBT transaction sent to 1 st notice. IBT is now a "toll evasion"	I
111	VDMVHLD	IBT transaction in DMV hold	I
112	VDMVPAY	IBT transaction paid at DMV Payment	F
113	VDMVREL	IBT transaction paid at DMV Release	F
114	VPFULL	IBT transaction paid as a violation in full	F
115	VPPART	IBT transaction paid as a violation in part. (Could be waiver of admin fees based on business rules)	F
116	VCOLLECT	IBT transaction sent to collection agency	I
117	VDISS	IBT transaction dismissed	F
118	VAUTHREJ	IBT transaction authority reject	F
206	OCRITOLAWAY	Toll posted successfully to a valid away agency account using license plate information	F

209	OCRITOLHOME	Toll posted successfully to a valid home agency account using license plate information	F
210	ONETOL	Toll posted successfully to a One Time Payment	F
211	LTOL	Toll posted successfully to a License Plate Toll Account	F
212	INVTOL	Invoiced transaction paid as an invoice	F
213	PPINVTOL_TO_VIO	Invoiced transaction for which the RCSC received partial payment and then sent out a violation notice for the remaining balance	I
214	NIXIE_FINAL	Nixie Reject	F
215	INV_TO_ITOL	Invoiced transaction posted to a FasTrak Account	F
216	INV_TO_LTOL	Invoiced transaction paid to a LPT account	F
217	INV_TO_ONETOL	Invoiced transactions paid by a One-Time Payment	F
220	2ND_VIO_SENT	2nd Violation Notice Sent	I
221	INV_SENT	Invoice Sent	I
222	PRE_INVOICE	Transactions with LPN and address ready to be placed on invoice	I
223	2 nd _INV_SENT	Invoice dismissed and new invoice sent	I

8.7 Posting/reconciliation scenarios for .vres file

This section details the conditions in which a transaction can be received at the VECTOR CSC from the GGB Host, as well as the various ways the VECTOR CSC shall process the transaction and how the transaction shall be reconciled back to the GGB Host.

Scenario	Tag Status	Posting Status	RES File Contents
Tagged transaction. Tag status generated at CSC shows valid. However lane does not have updated tag status and lanes read tag as invalid (account has negative balance).	Valid at VECTOR CSC Invalid at GGB lanes	CSC receives transaction with TOL_TRX_TYPE = 2 in the VIO file. CSC determines the account had the right financial status at the time of posting and posts to account	CSC reconciles transaction to Host with following information in the VRES file. PAYMENT_TYPE=A and CSC_REASON_CODE=02
Tagged transaction. Tag status at VECTOR CSC and GGB Host are in sync. Account has negative balance in VECTOR	Invalid tag read at the GGB lanes.	CSC receives transaction with TOL_TRX_TYPE =2 in the VIO file. CSC determines account has no funds. Hence CSC rejects transaction as invalid.	CSC reconciles transaction back to Host with following information in RES file. PAYMENT_FILE=E and CSC_REASON_CODE=24

Untagged transaction. Tag status at VECTOR CSC shows tag as valid. Lane has problems reading the tag.	Tag not read at GGB lanes.	CSC receives transaction with TOL_TRX_TYPE=2 in the VIO file. CSC sends transaction for image review. Transaction is posted after image review.	CSC reconciles transaction back to Host in the VRES file. PAYMENT_TYPE=A CSC_REASON_CODE=09 (ITOL)
GGB .req file contains transactions with tag status of the transactions in the .req file either in (0,2,3)	Tag status in 0,2 or 3	CSC at the time of posting will look at the account status and if the account financial status is GOOD then the transactions shall be posted	Paid-on-Import CSC reconciles transaction to Host with following information. PAYMENT_TYPE = A CSC_REASON_CODE = 01

8.8 Sample File

20040203044030.vres

```
#HEADER,VRES ,000001,02/02/2004,AT,GG,02/03/2004,04:40:30
0000003484,2,0895,133015,02/02/2004,GGB,01,00350,00000,00,A,103,02/02/2004,0003484564
0000003485,2,0956,133015,02/02/2004,GGB,02,00450,00000,00,A,103,02/02/2004,0003484564
0000003486,2,* ,* ,02/02/2004,GGB,03,00350,00000,00,V,102,02/02/2004,0003484564
0000003487,2,0345,133015,02/02/2004,GGB,04,00300,00000,00,A,103,02/02/2004,0003484564
0000003488,2,0243,133015,02/02/2004,GGB,05,00550,00000,00,A,103,02/02/2004,0003484564
#TRAILER,000001,02/03/2004,00000005
```

9 IBT Image Data File

9.1 File type

Fixed length, LF delimited

9.2 File name

Example: Image received from GGBD

<AGENCY_ID><LANE_ID><TRX_DATE><TRX_TIME><VEHICLE_SEQUENCE_NUMBER(LANE_TX_SEQUENCE_NUMBER for GGBD)>.VDF

GGB04_200405281234561200001234.VDF

GGB – AGENCY_ID
 04_ – Lane (“_” is used to fill the field size)
 20040528 – Transaction Date
 12345612 – Transaction Time (in milliseconds)
 00001234 – Lane transaction sequence Number

9.3 File use

This file is created for each IBT transaction for which the Image is matched. The IBT image data file should exactly match the filename of the image. The images should have a file type indicating the image number.

All images and Image Data files will be zipped and sent as one zipped file.

GGB04_200405281234561200001234_vdf.zip. This file contains -

- GGB04_200405281234561200001234.VDF
- GGB04_200405281234561200001234.1
- GGB04_200405281234561200001234.2
- GGB04_200405281234561200001234.3
- GGB04_200405281234561200001234.4

9.4 File layout

This file does not have any header or trailer record.

Table 17: IBT Image Data File – Detail Structure

Field Name	Type/Size	Description/Valid Values
AGENCY_ID	CHAR (3)	Agency the IBT transaction occurred. (CALTRANS – “CAL” and Golden Gate – “GGB”)
PLAZA_ID	CHAR (4)	Plaza where the IBT transaction occurred.
LANE_ID	CHAR (3)	Lane where the IBT transaction occurred.
TRX_DATE	CHAR (8)	IBT transaction occurrence date. Format: YYYYMMDD
TRX_TIME	CHAR (8)	IBT transaction occurrence time. Format: HHMMSSTT (in milliseconds)
VEHICLE_SEQUENCE_NUM	CHAR (8)	The unique vehicle transaction sequence number generated by lane. Values:00000000 – 99999999 Corresponds to the same field in the VIO file.

Field Name	Type/Size	Description/Valid Values
OCR_READ_CONFIDENCE	CHAR (3)	Over all Read confidence from the VIP (OCR Reader) Default to spaces. Values of 000 to 099.
PLATE_NUMBER	CHAR (10)	Plate Number of the vehicle Default to spaces
PLATE_STATE	CHAR (4)	Plate State of the vehicle Default to spaces
NUMBER_OF_IMAGES_TRX	CHAR (1)	Number of Images for this transaction
IMAGE_INDEX_NUMBER	CHAR (1)	Image to be used on violation notice in absence of manual image review.
FILLER	CHAR (9)	Reserved for Future
LINEFEED	CHAR (1)	LF
Detail Record Total	64	

9.5 Processing requirements

1. All the images (four color images in JPEG format and one black and white image in BMP format for CALTRANS; four JPEG black and white for GGB) shall be zipped as specified in this document.
2. The GGB Host shall create this file to indicate the image information that is linked to the IBT transaction on GGB lanes.
3. All images from the file shall be processed based on the overall confidence level of the associated image file.
4. An overall confidence level of 99% shall be required at the VECTOR CSC for an image to be processed without image review. Any image with an overall confidence level of 99% or higher shall not be subject to manual image review.
5. In cases where the detail record indicates an overall confidence level of 99% or more but a zipped image file is not found, the transaction will be stored in the system. As no image is found, the transaction will not go through further processing. The transactions will be rejected and final reconciliation status will be sent back.
6. If the overall confidence level of an image in the file is indicated as 98% or below, the VECTOR CSC shall process the transaction after manual image review.
7. VECTOR System tries to match the transactions to the images for one month (30 days from transaction date). After this time, unmatched transactions are reconciled back as IBT With No Image.
8. IBT Reports like V1NP shall be used to identify the number of transactions waiting for Images. The CSC uses this report.

9. CSC timing considerations, for the receipt of this file, are based on the GGB standards of 5-day reconciliation back to the Host. Hence the CSC expects a maximum delay of 5 days. However, transactions not matched with images will appear as such on the transaction reports.
10. The VDF files shall be placed on a Unix machine, and any duplicate filenames shall be overwritten at the time of the drop.

9.6 Sample File

GGB Sample VDF File: GGB401001 2004111111031581100000001 4

10 Acknowledgement File

10.1 File type

Fixed length, LF delimited

10.2 File name

{FROM_AGENCY}_{FILE_NAME}_{FILE_TYPE}.ack

Example: GGB_2001120104101501_ETC.ack
Acknowledgement file from Golden Gate Bridge created in response to the VECTOR CSC tag status file created at 04:10:15.01 on 12/01/2001

10.3 File use

The Acknowledgment File shall be created by the receiving system (the VECTOR CSC or the BATA Hosts whosoever received the file) to inform the transmitting system (the VECTOR CSC or the BATA Hosts whosoever transmitted the file) that the file transmitted was received in its entirety.

An Acknowledgement File shall be sent for each of the previously referenced files. Please refer to Table 1 for identification of files that will receive an .ack.

10.4 File layout

Table 18: Acknowledgment File - Detail Structure

Field Name	Type/Size	Description/Valid Values
FILE_TYPE	CHAR (4)	ACK
FROM_AGENCY_ID	CHAR (3)	Standard code of the system that received the file referenced in ORIG_FILE_NAME_TYPE. Values: CSC – indicates VECTOR CSC GGB – indicates Golden Gate Bridge Host CAL – indicates CALTRANS Host
TO_AGENCY_ID	CHAR (3)	Standard agency ID code of the system that transmitted the file referenced in ORIG_FILE_NAME_TYPE. Values: CSC – indicates VECTOR CSC GGB – indicates Golden Gate Bridge Host CAL – indicates CALTRANS Host
Field Name	Type/Size	Description/Valid Values
ORIG_FILE_NAME_TYPE	CHAR (50)	The name and type of the file being acknowledged as received from the To Agency. Format: FILE_NAME.FILE_TYPE where FILE_NAME is the name of the file being acknowledged and FILE_TYPE is the type of the file being acknowledged.
FILE_DATE	CHAR (8)	Date ACK file created. Format: YYYYMMDD The system receiving this acknowledgment file shall use this as the acknowledgement date.
FILE_TIME	CHAR (6)	Time ACK file created. Format: HHMMSS This system receiving this acknowledgment file shall use this as the acknowledgement time.
RETURN_CODE	CHAR (2)	A code indicating the status of the file being acknowledged. Values: 00 – File was successfully received and verified. 01 – Header record count does not match the number of detail records found in the file/record size in received file is not consistent with the ICD Refer to Appendix C for the processing rules associated with the various RETURN_CODE values.
DELIMITER	CHAR (1)	LF
Detail Total	77	

10.5 Processing requirements

1. The Acknowledgement file shall contain a single record only. For each file received by the From Agency/CSC, the From Agency/CSC shall generate an Acknowledgement File and transmit the file back to the To Agency/CSC. Refer to Table 1 for a list of files, which will be 'acked'.
2. CSC loads the ACK files into the database. This table is queried daily by production support. Error in ACK files will be recognized and escalated to production support for

research and resolution. For example, if an ACK reject reason is received indicating the file is out of balance, this will initiate the research to correct the problem.

3. The ACK file indicates that a file was successfully received by the receiving agency. The ACK provides an audit trail for research and can be used as a key event, in the future, in the Regional CSC. The Regional CSC is not designed to recognize the receipt of an ACK file for the continuation of an operation (i.e. CTOC Invoicing).
4. All incoming files that fail file-sanity checks (like header record count does not match the trailer record/ record length in file, does not match the ICD/ invalid checksum for CALTRANS) shall be rejected with reject code 01.
5. Records received, in transaction files, where the data elements are inconsistent with the ICD (like invalid date/invalid plaza_id/invalid lane) shall be acked with a code of 00, if the file passed the sanity check, as mentioned in #4. These individual records shall have reject codes in the response file going back to GGBD.
6. Alls file coming into ACS CSC will be rejected based on the ack return codes as described in [Section 11.3](#). Refer to that section for the various processing rules related to each RETURN_CODE value.

10.6 ACK File Processing

The purpose of the Acknowledgement File (ACK) is to provide a mechanism for verifying proper receipt of transmitted files by the sending party. The ACK file will provide an indication of error or no error as determined by the party receiving the original file. The indication of an error in the ACK file means that the receiving party will not process the corresponding file. The acknowledgement process (generating an ACK file) applies to all files transmitted between the Agency hosts and the Regional Customer Service Center with the exception of the IBT Image Data File (.VDF) and the ACK file itself (i.e. there is no need to ACK an ACK file).

It is the responsibility of the sending party to ensure that an ACK file was received for each file transmitted and takes prescribed action in the event that the ACK file indicated an error or an ACK file was never received. Both the party generating the ACK file and the party receiving the ACK file shall log all ACK files in a database. The ACK file log may be used to resolve problems or provide statistical information via ad-hoc queries.

Conditions may arise that require manual intervention or attention to a reported error. It is the responsibility of the sending party to initiate such action in the appropriate time and it is the responsibility of the receiving party to respond to requests (in the appropriate time) to assist in the resolution of the issue.

ACK file generation and processing:

After creation of the ACK file, the recipient transmits the ACK file back to the sender. It then becomes the responsibility of the original file's sender to examine the contents of the ACK file and, if a non-zero "return code" is found, investigate the problem, correct the file and transmit

(see chart) the corrected file back to the recipient for reprocessing. To assist the sender in diagnosing the problem, it is recommended that the recipient provide the sender (via e-mail or other means) with whatever log files are available that detail the nature of the problem detected with the file. Utilization of an automated process which detects all "01" values received and notifies appropriate support staff (via e-mail or other means) is preferred so that problem resolution can be expedited and is not dependent on manual review of processing results.

Receiving an ACK File – ACK files, like other files in the CSC/Plaza interface are "pushed" to the recipients drop-box by the creator of the file and "pulled" from that same area by the receiver of the file. The system software should ensure that the common area is polled periodically and frequently (at least every 15 minutes) to ensure that all files, including ACK files, are received promptly.

ACK file not received – Determining that an ACK file was not received depends on the amount of time the sending party waits for the ACK file before the decision is made. The appropriate amount of "wait-time" depends on the nature of the file. The wait-time timer starts when the transmitted file is pushed to the shared directory or device. Suggested wait-times for each file type are indicated in the ACK file processing chart below. In any case if it is determined that an ACK file was not received, an error is generated requiring manual intervention (a phone call, etc.). The sending party may or may not continue sending subsequent files of the same type (see ACK file processing chart). Note that the wait-time is independent of the time indicated in the body of the ACK file itself. The recipient is unaware and is not impacted by the sending party's wait-time expiration. Therefore it is possible that an ACK file could be sent to the sending party after the sending party wait-time had expired. However it is expected that the required manual intervention will resolve the issue.

If the wait-time expires prior to receiving an ACK, the sending party will generate an automatic e-mail to a designated list of people. Such e-mails will then continue every eight hours until the problem is resolved.

ACK file received indicating no error – In this case the sending agency logs the ACK file information into the database and continues normal processing.

ACK file received indicating an error – If a return code of 01 is received for any file, the sending and receiving entities will work to resolve the specific issue and recreate and resend the file.

File validation rules

The following chart indicates the required file validations and the suggested return codes. The agencies should review the processing rules for each file type and add additional return codes if necessary. If detailed return codes are not desired, all errors may default to a return code of 01.

Return Code	File Validation
00	No Errors
01	Generic File Error – Not specifically defined.

11 Processing rules

11.1 Tag Files

The Plaza Host will periodically poll the transfer area for tag files. When a new file is received the Plaza Host will load the file and perform certain validations. In all cases the Plaza Host will generate an ACK file and transmit this back to the CSC. The ACK file will contain a SUCCESS code (value 00) if the tag file passed validation and was sent to the lanes, or a FAILURE code (value 01) if the tag file failed validation.

The first tag file for each day should be received by 4 am. If it is not received the Plaza Host will automatically send an email to the CSC and Sysops stating the “first tag file is late or missing”. No other action will be taken and this check will only be for the 4 am file.

11.2 GGB ETC and VIO Recon files

The GGB Host will periodically generate and transmit ETC and VIO files to the CSC. GGB will periodically poll the area ACK files are transferred to the Host by the CSC.

When an ACK file is received the GGB database will be updated. If the ACK file shows a FAILURE code the GGB Host will regenerate and resend the original file. A failure count will be maintained and after 3 concurrent failures of a single file an email will be sent to the GGB System Operators.

If an ACK file is not received within 2 hours of an ETC or VIO file being transmitted to the CSC an email will be generated to the CSC and GGB System Operators. Another email will be sent every 2 hours to a designated list escalating the issue until the situation is resolved.

A recon file should be received within 9 hours of an ETC or VIO Transaction file being transmitted to the CSC and no later than 10 am for the previous day’s files.

GGB will periodically poll the area recon files are transferred to the Host by the CSC. When a new file is received GGB will load the file and perform certain validations. In all cases the GGB Host will generate an ACK file and transmit this back to the CSC. The ACK file will contain a SUCCESS code (value 0) if the recon file passed validation and was sent to the lanes or a FAILURE code (value 01) if the recon file failed validation.

A recon file will always be ACKED with a FAILURE code if it is received before the ACK file for the corresponding ETC or IBT Transaction File.

If a recon file is not received within 9 hours or by 10 am for the previous day's files, the GGB Host will automatically send an email to the CSC and GGB Sysops stating the "recon file is late or missing". This check will be repeated every 2 hours and an email will be sent to a designated list escalating the issue until the situation is resolved.

11.3 VDF Files

The Plaza Host will periodically generate and transmit VDF files to the CSC. No ACK files or validation is used in this interface.

ACK file Processing Chart

The following table indicates the action taken to a non-zero ACK return code for each of the files defined in the ICD. If an original file is to be corrected and re-transmitted the file name and header information (sequence number, name, create time) must be changed prior to resending. Both the sending and receiving parties should store the rejected file.

No	File Name	ACK wait time	Sender Action
2	GGBD Tag Status File	2 hr	Investigate problem with file and resend after file is repaired (unless a subsequent tag file has already been sent).
6	GGBD ETC Transaction File	2 hr	Investigate problem with file and resend after file is repaired. Subsequent files may be sent.
7	GGBD IBT File	2 hr	Investigate problem with file and resend after file is repaired. Resolve before sending subsequent files.
8	GGBD ETC Detailed Reconciliation File	Within 24 hours	Investigate problem with file and resend after file is repaired. Subsequent files may be sent.
9	GGBD IBT Reconciliation File	Within 24 hours	Investigate problem with file and resend after file is repaired. Subsequent files may be sent.

Acknowledgement File Return Codes

	00	01
	Successfully Received and Verified	Header/Detail Count Discrepancy
GGBD REQ files	Process	Do not process. Follow rules - (1)(3)(4)(6)
GGBD VIO files	Process	Do not process. Follow rules - (1)(3)(4)(6)
GGBD Tag files	Process	Do not process Follow rules - (2)(5)(6)

Rules:

1. Originating Agency should rename 'error' file (including Header) to be a unique file (i.e. before re-transmitting, rename original file with a new filename and since the header record also contains the filename (CALTRANS)/sequence# & createdatetime (GGB), the header should change to reflect the new filename/sequence#/createdatetime). VECTOR does not require maintaining any link between the old 'error' file and the new file.
2. Receiving Agency/CSC should utilize the previous valid file. Originating/Receiving Agency/CSC should escalate immediately to the CSC/Host.
3. Originating Agency/CSC should investigate, repair file as needed and resend.
4. File should not be included on any revenue reconciliation reports.
5. Originating Agency/CSC should investigate
6. Receiving Agency/CSC shall use this code to indicate errors in file sanity (like header record count does not match trailer/record length does not match ICD layout).

V-A-1: File Flow

The flow of all files between the BATA CSC and all the other agencies (including home agencies) is depicted below.

PLEASE CONTACT GOLDEN GATE BRIDGE STAFF FOR THE FILE FLOW DIAGRAM

V-A-2: IP Addresses

The following are the IP address of drop boxes which will be used for the transfer of files between the RCSC and all other agencies (including home agencies)

Location where GGB and CALTRANS will drop their Transaction and Images Files

Agency Name	Drop Box IP Address	Directory
GGBD	[REDACTED]	/ggxat
CALTRANS	[REDACTED]	/ctxat

Location where GGB and CALTRANS will Pick Up Tag Status and Reconciliation Files

Agency Name	Drop Box IP Address	Directory
GGBD	[REDACTED]	.
CALTRANS	[REDACTED]	/atxct

Location for RCSC System Jobs to drop Tag Status and Reconciliation Files

Agency Name	Drop Box IP Address	Directory
GGBD	[REDACTED]	.
CALTRANS	[REDACTED]	/

Location where CTOC Agencies will drop their reciprocity files to RCSC System

Agency Name	Drop Box IP Address	Directory
SR91	[REDACTED]	/srxat
TCA	[REDACTED]	/tcxat
SANDAG	[REDACTED]	/sdxat

Location where RCSC System will drop reciprocity files to CTOC Agencies

Agency Name	Drop Box IP Address	Directory
SR91	[REDACTED]	/ioptest
TCA	[REDACTED]	/ioptest
SANDAG	[REDACTED]	Atxsd

SECTION VI: CASH PAYMENT NETWORK REQUIREMENTS

1 Overview

Golden Gate Bridge intends to provide a Cash Payment Network to customers who prefer to pay cash for their toll transactions. The Cash Payment Network is comprised of the Retailer or Retail facilities, the Vendor, and Customer Service Center and the interface with the Customer Service Center (hereafter referred to together as the “Contractor”). This document specifies the requirements for the Contractor.

Included in this document are instructions on additional information and detail to include in a revised “proposal to develop and maintain a cash payment network in the San Francisco Bay Area”.

2 General Requirements

Services provided under the CPN Agreement shall comply with all applicable federal and state law. The Contractor shall be responsible for determining the required federal and state requirements and shall demonstrate compliance with these requirements.

The intent for the CPN is to support cash customers. The Contractor may support forms of monies other than cash for replenishment and payments that are normally supported by the retail facility (check, credit/debit cards). However, funds are guaranteed to BATA/GGB once a transaction has been completed.

The Contractor shall be responsible for all hardware, software and telecommunications costs associated with the provision of customer transaction services and the interface with the Retailers. The Contractor shall ensure that all retail systems/processes are in full compliance with relevant state and federal privacy and confidentiality standards, including those outlined in SB1268. The Contractor shall describe measures being taken to ensure secure transfer of information to and from the RCSC.

The Contractor shall provide an interface test plan and schedule that includes (1) the Vendor-RCSC interface, and (2) the interface to each merchant that participates in the program. Test results shall be reviewed by GGB/BATA and individual merchants shall not be brought on line without GGB/BATA approval.

2.1 RCSC and Vendor Interface

The Vendor’s system shall provide customers with the same up-to-date information that would be available via the Web or by calling the RCSC. When a retail transaction is complete the system shall immediately reflect the replenished balance for a FasTrak account, the correct balance for a License Plate account, the payments made against invoices and violation notices, and that one-time payments are available for use.

The Contractor shall use a standard interface that can be customized for use by BATA/GGB throughout the cash network.

The Vendor and RCSC shall clearly define and communicate to the customer the appropriate point of contact for customer service.

2.2 Retail Locations

In preparation for AET, the Contractor shall make efforts to provide one hundred and fifty (150) or more well-placed, qualifying retail locations throughout the Bay Area that will offer the cash payment service and are available to the general public at the time of full implementation. All retail locations that accept payments for BATA/GGB transactions are subject to BATA/GGB approval. BATA/GGB will provide approval guidelines prior to implementation to facilitate the process.

At least some locations will be well-known retail chain brand names to be approved by BATA/GGB. It is understood that chain brand name stores may independent operators, and not every store in the Bay Area under a designated retail chain brand name will offer cash payment network services.

The Contractor shall also work with BATA/GGB to identify economically disadvantaged areas to focus on.

Service may be performed by point of sale (POS), kiosks or other systems that shall be pre-approved by BATA/GGB in writing. Though not required, the Contractor shall identify any out-of-state retail locations that will be able to process transactions identified herein.

Qualifying retail locations shall be available to customers during published merchant service hours.

The Contractor shall provide a list of the Contractor's internal standards that retailers must meet in order to participate in the CPN program. The Contractor shall monitor the quality of retailer services and discontinue a retailer either if the Contractor determines that standards are not met or at the request of BATA/GGB.

2.3 Retail Locator

A website shall be made available for customers to find a cash payment location. The website shall be kept up-to-date. Retailers who no longer provide Cash Payment Network services to BATA/GGB or do not meet the performance requirements shall be removed from the list. Retailers shall only be added back onto the list after they have shown to be capable of meeting all requirements.

At a minimum, the website shall allow the customer to pull up locations by address or zip code, and shall show locations near each bridge. The locator shall allow the addition of locations of any future Vendors that join the cash payment network.

The customer shall be able to find a cash payment location when calling into the RCSC.

2.4 Disputes, Refunds, and Voiding Transactions

Once a transaction is complete, it cannot be voided and no refunds shall be issued by the merchant. Any disputes/refunds associated with a transaction shall be handled by the RCSC.

The retailer shall be responsible for short-change errors on the part of the retailer (e.g. incorrect change), as well as chargebacks and NSFs for payments accepted by the retailer.

The RCSC handles disputes regarding all transactions in accordance with its policies and procedures. Refunds by the RCSC shall not be considered until the payment appears on CPN reports and the funds have been received at the RCSC.

2.5 Payment Products

Payment products are defined in Section I of this document.

BATA/GGB shall have the option to deploy different payment products separately (e.g. FasTrak replenishment functionality may be deployed at a different time than other payments/products). The timing of payment product deployment shall be agreed upon by BATA/GGB and the Contractor.

All CPN retail locations shall be able to process the following cash transactions:

- FasTrak replenishments
- Add funds to an existing Pre-Paid Balance LP account
- Create a One-Time Payments
- Accommodate No -Plate Payments (assumes no changes to the interface required)
- Accept invoice payments
- Accept violation notice payments

The only product that can be created through the cash payment network is a One-Time Payment. Account information cannot be updated via the network.

2.6 Minimum and Maximum Payment Amounts

The minimum and maximum amounts shall be configurable by type of transaction, such as a load of funds versus a document payment. However, minimum and maximum values may not vary within a specific product, such as between types of vehicles. Only one set of values, minimum and maximum, is allowed by type of product.

In the case of document payments (both Invoices and Violation Notices) both the minimum and maximum payment amounts shall be equal to the amount due on the invoice.

2.7 Customer Validation

The Contractor shall take necessary measures to protect all private and personal customer information in accordance with the BATA RCSC Contract. Kiosk customers shall be permitted to view only the Private Customer Information for which they have been validated.

2.8 Check Balance and Receipts

The Contractor shall provide mandatory printed receipts for all payments. Customers shall be advised to retain the receipt for their records as proof of payment.

Receipt design at the point of sale level will define during the final requirement gathering and design phase, and shall be approved by BATA/GGB.

The CPN shall provide the capability for customers to check the balance of their prepaid FasTrak or LP account.

2.9 Funds Transfer and Reconciliation

The CPN vendor will guarantee that all funds are wired within twenty-four hours of successful transactions. The process that will ensue is as follows:

- On Day 1, consumers conduct transactions at the kiosks or at POS locations in the approved retail locations and upon receipt of successful responses, pay the cashier. Transactions are sent via to the RCSC for posting to the appropriate accounts in real-time. Receipts are printed with all required information and given to consumers.
- All BATA/GGB retail transactions completed on Day 1 are ACH'd on Day 2.
- Funds for all successful BATA/GGB transactions completed on Day 1 are simultaneously transferred to the designated RCSC bank accounts on Day 2. If the daily funds transfer falls on a non-business day, then the funds are delivered on the next business day, i.e. Friday, Saturday, and Sunday are delivered on Monday.

A remittance file containing the transactional detail is sent on Day 2 with all information for each transaction included in the funds transfer.

The RCSC shall record and reconcile all payments made through the CPN.

- The RCSC shall flag or otherwise indicate all payments made through the CPN.
- The RCSC shall associate the following information with each CPN payment:
 - The date and time the RCSC received the payment transaction
 - The date and time associated with the payment transaction
 - The amount and type of the payment transaction
- The RCSC shall correctly associate all CPN payments with accounts or transactions.
- On a daily and monthly basis, the RCSC shall reconcile CPN detailed transactions report in VECTOR with CPN Vendor reports of transactions and with bank deposits from the CPN.
- The RCSC shall correctly divide the funds received from the CPN between prepaid

balances and payments to the agencies.

- The Contractor shall reconcile total reported CPN revenue to amount transferred to BATA. It shall be decided between GGB, BATA and the Contractor whether the Merchant fees absorbed by GGB will be invoiced or the amount will be deducted from this amount transferred to BATA.
- The Contractor shall ensure that RCSC reports correctly reflect CPN revenue by product type and agency (where appropriate).

3 Customer Service Requirements

- The RCSC shall train CSRs to answer questions regarding CPN location, process for using the CPN, and CPN usage and payment history.

4 Reports Requirements

The reporting package shall include:

- Daily detail reports from the Vendor for all successful transactions, including merchant fees and a wire file that will balance to all transactions paid for the previous day (24 hour period).
- The Contractor shall run and reconcile two new daily CPN reports:
 - Posted CPN transactions
 - Declined CPN transactions
- Daily CPN Summary Recon (LPT and Invoice)
- Reconcile daily deposits by the Vendor network by transaction type per bank statements to the daily Vendor payments processed in Vector
 - Reconcile/research miscellaneous bank CREDIT adjustments and any unidentified transactions related to the CPN
 - Reconcile/research miscellaneous bank DEBIT adjustments and any unidentified withdrawal/debit transactions related to the CPN

Additionally, the Contractor shall work with BATA/GGB to define and provide additional financial reports covering all transaction types; these may include:

- Monthly statistics of services provided to customers by date, by location, by zip code, by transaction type, by number of axles, and by total transaction amount over the month
- Rolling twelve (12) month trends
- Detail daily report to include transaction date of transactions by type and/or by location with totals of counts and amounts with detail by transaction. This should match the CSV file sent to RCSC. The CSV file shall contain sufficient information to allow BATA/GGB to match each entry to the corresponding transaction recorded on the customer's LP account, FasTrak account, Invoice number, Violation number, or to a One-Time Payment. Transaction detail should include date/time of payment, transaction type, location, document or account number, amount of transaction, the retail location where the transaction was conducted, and a unique CPN Transaction ID number. The daily report should include subtotals by transaction type. Information should be reconciled to Vector reports to ensure full accounting for all transactions.

- Monthly payment report summarizing daily information per CPN transaction date or by payment location including monthly subtotals by transaction type
- Monthly report should be reconciled to the monthly bank statement for payments wired from CPN
- Daily copy of wire transfer request sent to bank
- Bank deposit amount should be reconciled to the daily transactions report
- Detail report on accounts opened

The system shall have the ability to track and report the number of customer interactions that do not result in a successful payment by reason, including customer canceling out of the transaction.

5 User Interface Requirements

The following user requirements apply when the Contractor is providing a semi-self-serve kiosk (instead of a POS), where a cashier is required to accept the money and print out the receipt. [Note that there are currently only four (4) kiosk based locations in the nine-county Bay Area—in Pinole, El Cerrito, Calistoga, and San Jose.]

5.1 General User Interface Requirements

The Contractor system automated customer interface shall be intuitive and not require any training in its use. The customer interface and screen flows shall be designed in collaboration with BATA/GGB. The final design for the user interface shall require BATA/GGB's written approval. The button on the initial screen for toll payments shall be designed with BATA/GGB.

The Contractor system automated customer interface, if applicable, shall (at a minimum) support English and Spanish languages.

The kiosk interface shall provide sufficient guidance related to the available payment products, including which payment products are available for which bridge(s) and payment requirements for each, to assist customers with selecting the payment product to use.

The kiosk shall have a configurable inactivity timeout, where if no activity has occurred on the kiosk, the user (customer) is automatically logged out of the system.

To assist the customer with calculating the correct toll amount due, where applicable, the kiosk interface shall provide the capability for a chart or menu of vehicle classes, the bridge (GGB only initially), and the associated fare for a single crossing for those classes, thus allowing the customer to specify a toll quantity representing the number of crossings.

The display of information at POS locations will be to the cashier and not the customer. Each POS system may present information in a unique way; however, all required information can be programmed. It is understood that each POS system is unique and can have unique limitations within the API.

5.2 Customer Inquiries

For inquiries related to accounts, invoices and violations, the FasTrak CSC number will be both printed on all receipts and displayed on all kiosks.

Retailers must be able to access details of transactions conducted at their location for the last 90 days by date/time.

The Contractor's user interface shall require the customer to confirm a replenishment or payment action including all data entered prior to finalizing the transaction to reduce the occurrence of input errors.

The Contractor system or human process shall ensure customers are aware of the following:

- Any and exact charges/fees associated with the transaction, and are provided with the opportunity to accept them or decide not to complete the transaction.
- That charges/fees are charged by, and payable to, the Merchant and not BATA/GGB or FasTrak.
- That any additional services are offered solely by the Vendor and not BATA/GGB.

6 Marketing and Communications

The Contractor will work collaboratively with BATA/GGB to develop a comprehensive communications and marketing plan. Promotional activities may include email and/or direct mail to communicate new products and services to existing account holders, as well as newspaper advertising, signage and promotional literature.

Neither the Contractor nor BATA/GGB will be responsible for sharing any promotional costs, which have not been agreed upon in writing prior to incurrence of cost.

7 Quality Assurance and Quality Control

The Vendor shall:

- Require each merchant/retail location to adhere to policies for managing cash transactions, including the operation of the POS devices, delivery of receipts to customers, and ability to audit operations;
- Track each transaction, including POS location, amount and time of transaction, and account credited
- Provide a method for customers to report policy issues and follow up with merchants through final resolution of the issues.
- Provide a system that manages the customer interactions:
 - Customers may provide account or violation information to identify outstanding balances;
 - The system will track each transaction including POS location and ID, amount, and time of transaction;
 - The POS will interface with VECTOR through the defined ICD;

- The POS must provide a receipt to the customer with the VECTOR payment reference number and the CSC telephone number.

ACS shall provide an interface that controls access to accounts and manages the entire payment process:

- Accounts will be verified at the POS at the beginning of the transaction through direct communications with VECTOR;
- VECTOR will track each transaction, including POS location, amount and time of transaction, and account credited, as well as transaction status such as COMPLETED or CANCELLED;
- Transactions will be finalized with a reference number printed on a paper receipt with the amount of the transaction and status that can be identified in VECTOR.

The Contractor shall provide summary and detail reports by date, location or account that will be used to assure that all payments are reconciled for a reporting period. ACS will provide a method for tracking and resolving reconciliation issues directly with Blackstone. Issues may be identified by POS location, VECTOR account or processing date from summary reports. Audits can be performed using detailed transaction records based on summary reporting issues or a disproportionate number of cancelled transactions at a POS location. ACS will require Blackstone to investigate and enforce policy violations with merchant locations based on audits of reconciliation issues.

8 Security and Standards

Contractor shall warrant that all applicable Contractor systems utilized to provide the required services are compliant with Payment Card Industry (PCI) Data Security Standards (PCI-DSS) and Payment Application Data Security Standards (PA-DSS).

All transaction processing shall conform to all security standards as defined in the contract between BATA/GGB and the RCSC.

Information shall be transferred between the Vendor system interface and the RCSC via a secured connection and documented in the ICD. All costs associated with setting up, using and maintaining the secure connection with the BATA/GGB shall be borne by the Contractor.

The transaction information sent, received and stored from the Vendor and RCSC system interface shall be fully auditable and available to BATA/GGB upon request. Vendor and RCSC data and records shall be retained for a minimum period in accordance with the BATA RCSC Contract. All customer PII shall be handled in accordance with the BATA RCSC Contract.

9 Merchant Fees

The portion of the fee that GGB pays for each payment product (FasTrak, LP account, One-Time Payment, Invoice, and Violation) shall be configurable. BATA/GGB may elect to pay for a percentage of the merchant fee or a 'flat' amount toward each merchant fee. The percentage

or 'flat' amount paid by BATA/GGB may differ by payment product and by agency. BATA/GGB may also elect to not pay any of the Merchant fees. The customer shall only be shown the portion of the fee for which they are responsible.

Each product will have a set fee within the cash network. Merchant fees shall be mutually agreed upon between all parties prior to rollout. The Contractor shall provide balance inquiries at no charge to the customer.