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TC Trustee Host Developer Guide

Version 2.0.0

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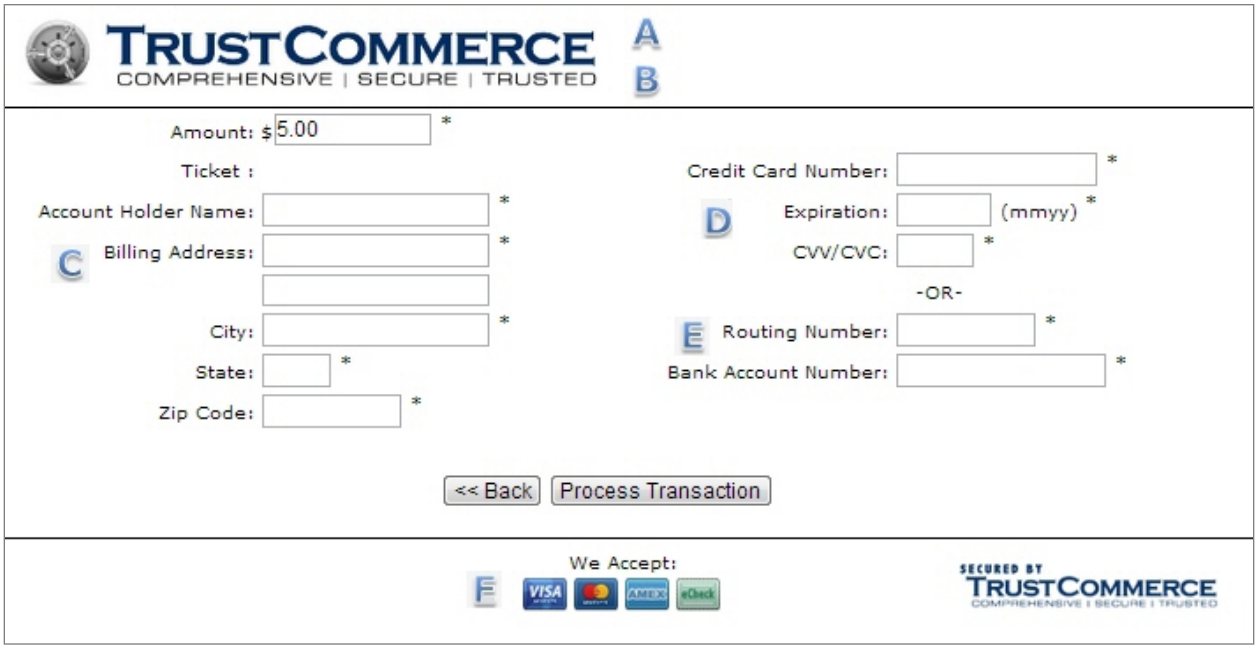
About TC Trustee Host

Overview

TC Trustee Host is a payment application, hosted by TrustCommerce, that provides a secure environment for merchants to collect sensitive cardholder data and reliably process online transactions outside of their own network. To accomplish this, TC Trustee Host is designed to integrate into either a new or existing online shopping cart, donations page, or other payment system. By working outside of their own network, merchants can significantly reduce their PCI scope.

Merchants can customize TC Trustee Host payment pages by adding a company logo, choosing font styles and sizes, and specifying header, font, and background colors (see Customizing Payment Pages).



A. Configurable Header

B. Merchant Logo

C. Cardholder/Billing Information

D. Credit Card Information

E. ACH Account Information

F. Accepted Card Types

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Accessing TC Trustee Host Settings

TC Trustee Host has many features which can be customized to match the merchant's Web site or brand.

Procedure

To access TC Trustee Host settings:

1. Type the following URL into a Web browser: https://vault.trustcommerce.com
2. Type your TrustCommerce Customer ID and Password, and then click **Login**.
3. Click **TC Trustee Host** from the left navigation menu. The **TC Trustee Host Settings** page appears.

Note: Your account must have TC Trustee Host enabled for the TC Trustee Host link to appear under **Add on Products**. Contact your TrustCommerce Account Manager or Solutions Consultant for details regarding the setup and support of this functionality.

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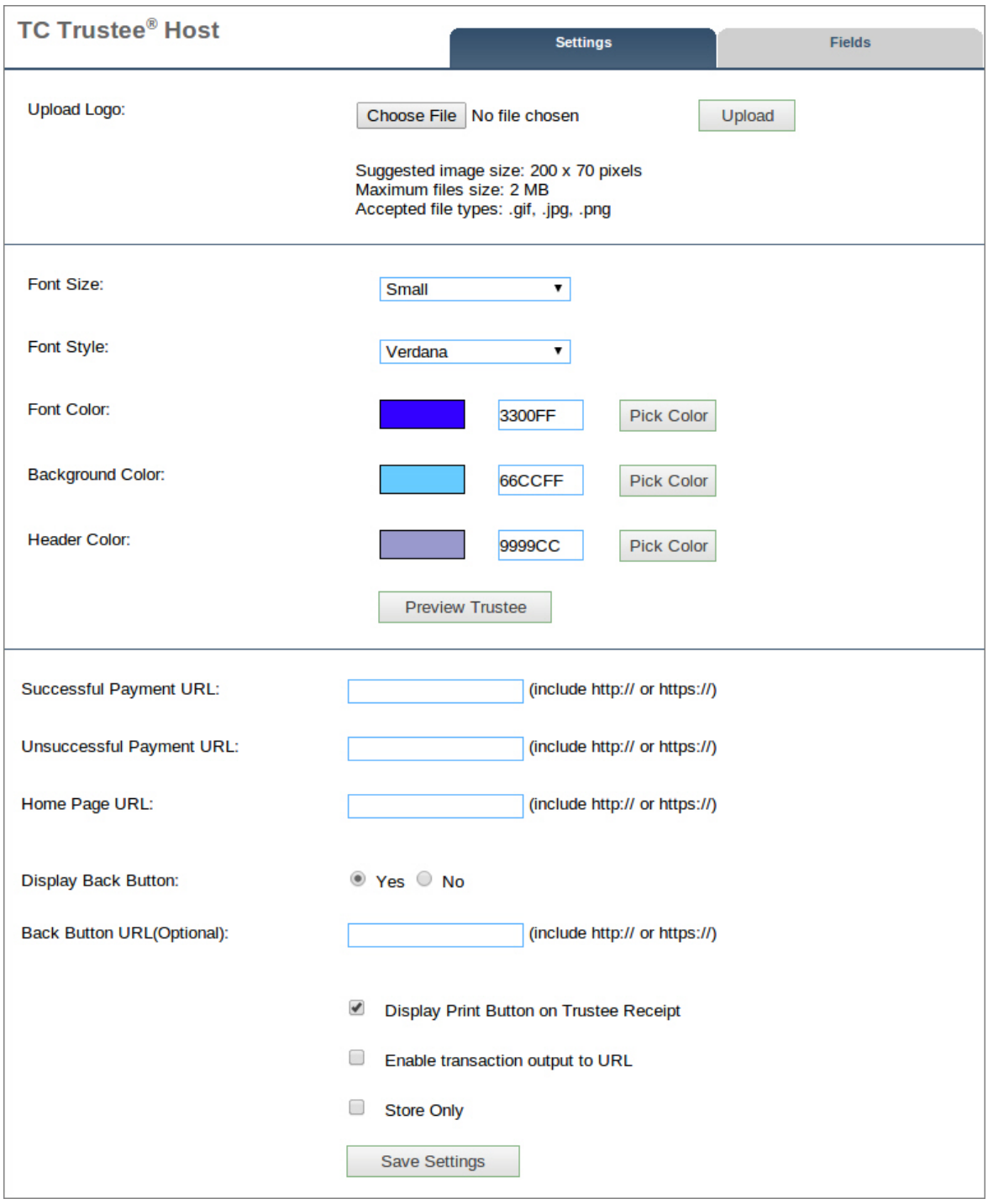

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Customizing the Look and Feel of Payment Pages

Overview

Merchants can customize TC Trustee Host payment pages with a company logo, a custom page background color, and a custom font style, size and color. Custom configuration enables merchants to match payment pages to their existing Web sites creating a consistent look and feel for customers.

Procedure

To customize the look and feel of payment pages:

1. Log in to TC Vault (see Accessing TC Trustee Host Options).

> **Note:** Your account must have TC Trustee Host enabled for the TC Trustee Host link to appear under **Add on Products**. Contact your TrustCommerce Account Manager or Solutions Consultant for details regarding the setup and support of this functionality.

2. Click **TC Trustee Host** from the left navigation menu.
3. Click the **Settings** tab, and then click **Choose File** at the top of the page.
4. Browse to an image file on your computer, and then click **Open**.
    - Recommended Image Size: 200 x 70 pixels
    - Maximum File Size: 2 MB
    - File Formats: .PNG, .GIF, .JPG/.JPEG
5. Click **Upload** to transfer the new image to TC Trustee Host.
6. Select a font size for TC Trustee Host.
    - Small = 8 pt
    - Medium = 10 pt
    - Large = 14 pt
7. Select a **Font Style**.
8. Click **Pick Color** to select a Font Color for the payment page, or click the **Color Slider** tab from the color palette to specify an HTML hex color value, and then click the color swatch to apply it. Repeat this step for the **Background Color** and **Header Color**.

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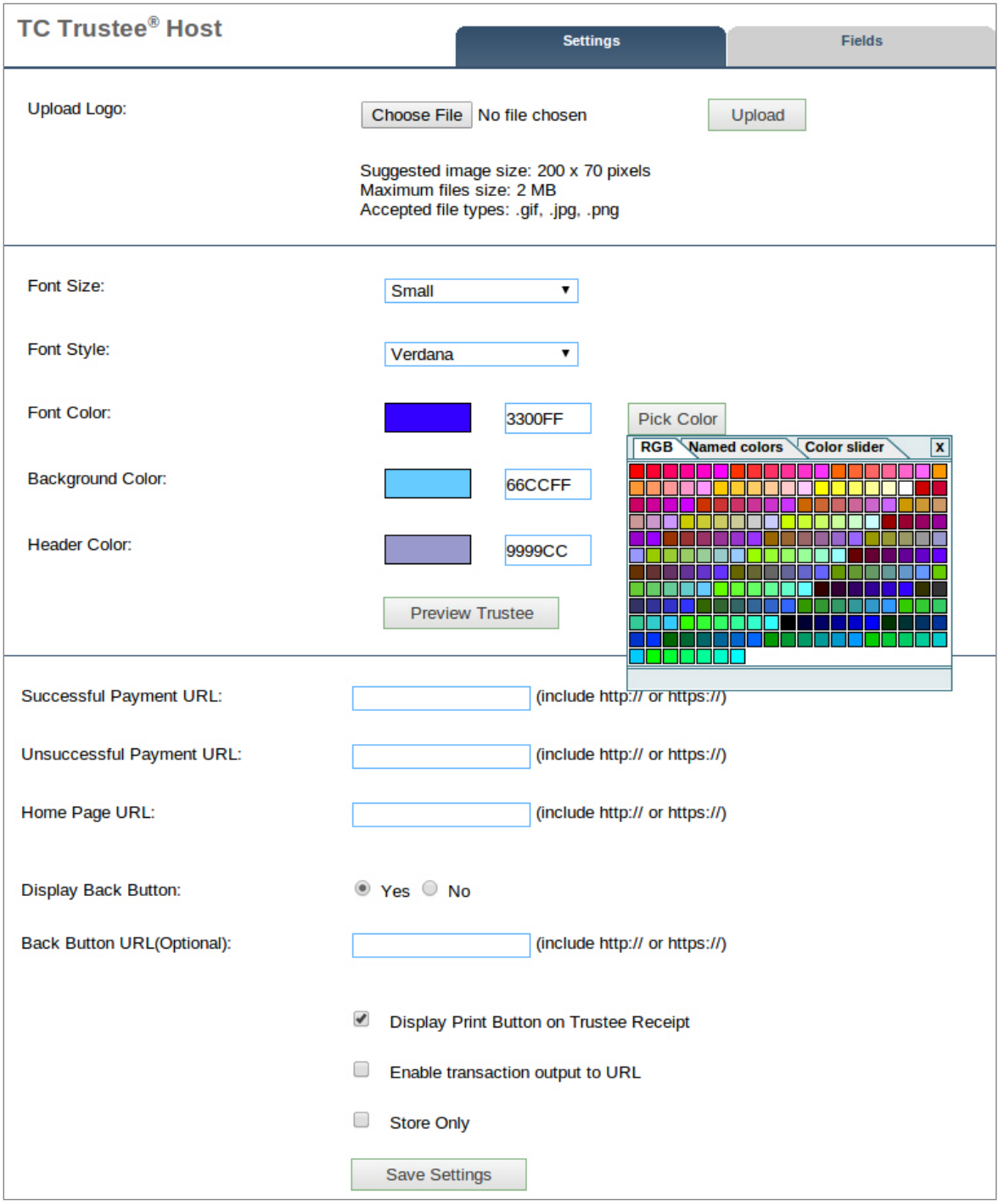

Note: Click **Preview Trustee** to preview your changes before saving.

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9. Configure the following as needed:

TC Trustee Host Functions	
Option	**Description**
Successful Payment URL	The **Successful Payment URL** directs users to a merchant-defined receipt page outlining the transaction details or displays an order confirmation. Type or copy and paste a URL in this text box to define a Successful Payment URL. This text box is blank by default. If this text box is not populated with a URL, the default receipt is displayed.
Unsuccessful Payment URL	The **Unsuccessful Payment URL** directs users to a merchant-defined decline or error page in the event of a failed transaction. Type or copy and paste a URL in this text box to define a Unsuccessful Payment URL. This text box is blank by default. If this text box is not populated with a URL, a default TC Trustee Host page is displayed.
Home Page URL	When the **Home Page URL** text box is populated, the customer receipt includes a link at the bottom with the URL from this text box. The customer can click the link to return to the home page. This text box is blank by default. If this text box is not populated with a URL, the user does not have the option to navigate from the payment page to a home page.
Display Back Button	Click **Yes** to display a **Back** navigation button on the TC Trustee Host payment page or click **No** to omit the **Back** button. If you click **Yes**, define the URL for the Back destination page in the **Display Back Button** text box. This text box is blank by default. If you click **Yes**, typing a URL in the **Display Back Button** text box is not required. If you click **Yes** and leave the text box blank, the **Back** button is displayed on the Trustee Host payment page and, if the user clicks **Back**, the user is returned to the previous page.
Back Button URL (Optional)	The **Back Button URL** directs users to a merchant-specified URL if **Yes** is selected for **Display Back Button**. Type or copy and paste a URL in this text box to define a destination URL for when the user clicks **Back**. This text box is blank by default. If this text box is not populated with a URL, the **Back** button is displayed on the Trustee Host payment page and, if the user clicks **Back**, the user is returned to the previous page.
Display Print Button on Trustee Receipt	Mark this check box to include a print button and the ability to print from the customer receipt page (selected by default).
Enable transaction output to URL	Mark this check box to pass the transaction results to the successful or unsuccessful URL respectively. If there is no requirement to return this information to the URL, disable this feature (not selected by default).

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TC Trustee Host Functions	
Option	**Description**
Store Only	Mark this check box to store customer payment information only. When the **Store Only** function is enabled, you cannot schedule Recurring/Installment payments (not selected by default). Your account must have TC Citadel enabled to use the **Store Only** function. To enable TC Citadel, contact a TrustCommerce Account Manager.

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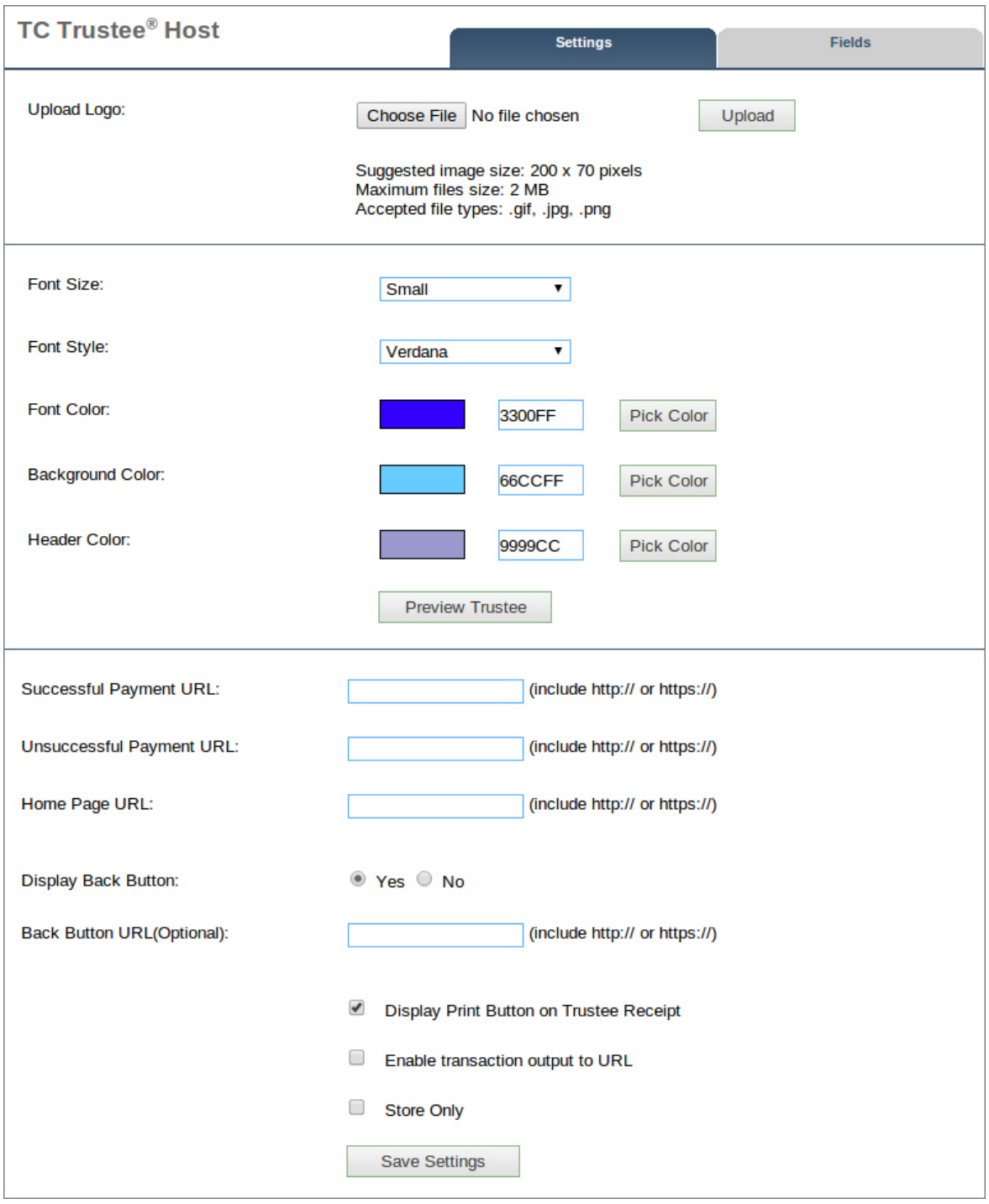

10. Click **Save Settings** to save your changes.

Note: Click **Preview Trustee** to view your saved changes.

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Customizing TC Trustee Host Payment Fields

Overview

Merchants can configure the fields that are displayed on the TC Trustee Host payment page.

Procedure

1. Log in to TC Vault (see Accessing TC Trustee Host Options).

> **Note:** Your account must have TC Trustee Host enabled for the TC Trustee Host link to appear under **Add on Products**. Contact your TrustCommerce Account Manager or Solutions Consultant for details regarding the setup and support of this functionality.

2. Click **TC Trustee Host** from the left navigation menu.
3. Click the **Fields** tab.

Field Name	Display Name	Type	Size	Length	Required	Enabled	Display on Receipt	Ordering
amount	Amount	readonly	12	12	Required	Yes	Yes	
ticket	Ticket	readonly			Optional	Yes	Yes	
name	Account Holder Name	text	20	20	Required	Yes	Yes	
address1	Billing Address	text	20	80	Required	Yes	Yes	
address2		text	20	80	Optional	Yes	Optional	
city	City	text	20	80	Required	Yes	Yes	
state	State	text	2	2	Required	Yes	Yes	
zip	Zip Code	text	10	10	Required	Yes	Yes	
column separator		sep				Yes	Yes	
transid	Transaction ID	receipt				Yes	Yes	
authcode	Approval Code	receipt				Yes	Optional	
billingid	BillingID	receipt				Yes	Optional	
card_type	Card Type	receipt				Yes	Optional	
cc	Credit Card Number	text	17	16	cc	Yes	Last 4	
exp	Expiration	text	5	4	cc	Yes	No	
cvv	CVV/CVC	text	5	4	cc	Yes	No	
or	-OR-	sep				Yes	Yes	
routing	Routing Number	text	10	9	ach	Yes	Yes	
account	Bank Account Number	text	18	17	ach	Yes	First 4	
bcustomfield1	Test CustomField	readonly				No	Yes	

4. From the drop-down menu, click the field to add, and then click **Add Trustee Field** (see TC Trustee Host Field List for descriptions of fields and see TC Trustee Host Field Options for descriptions of field options).
5. Click the arrow buttons on the right to change the display order of fields on the payment page.

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Note: There is no limit to the number of blank fields you can add to the TC Trustee Host payment page.

Requesting TC Trustee Host Tokens

The TC Trustee Host token is a block of text used to authenticate customers in the TC Trustee Host application. The token is retrieved and passed to TC Trustee Host as a form parameter, along with other required parameters, during the transaction process. To obtain a token for TC Trustee Host, submit an HTTP Post request to https://vault.trustcommerce.com/trustee/token.php with your TrustCommerce Customer ID (CustID) and password.

Required Parameters for Token Request

Required Parameters	
Field Name	**Description**
custid	A unique customer identification number assigned by TrustCommerce; If you do not have a customer ID, (CustID), contact a TrustCommerce Account Manager.
password	The password for your CustID as assigned by TrustCommerce

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Token Request Example HTML

```
<html>
<head> <title> TC Trustee Host: Token Request</title> </head>
<body>
<h2> TC Trustee Host: Token Request</h2>
<form action=https://vault.trustcommerce.com/trustee/token.php>
      <table align=center border=1>
      <tr>
            <td> custid </td>
            <td> <input type=text name=custid> </td>
            <td> This is your TrustCommerce custid (required) </td>
      </tr>
      <tr>
            <td> password </td>
            <td> <input type=password name=password> </td>
            <td> This is your TrustCommerce password (required)
</td>
      </tr>
      </table>
</form>
</body>
</html>
```

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Processing Transactions

Overview

TC Trustee Host enables you to process:

- One-time transactions
- Recurring transactions
- Installment transactions
- Store-only transactions

The examples below are provided as guidelines. They are not comprehensive descriptions of how to implement TC Trustee Host.

One-Time Sale

The following example shows how to use TC Trustee Host to process one-time sale transactions.

Note: Return parameters are submitted to TrustCommerce for processing via the URL below (see Return Status Parameters):
https://vault.trustcommerce.com/trustee/payment.php

To pass additional TC Trustee Host fields from a merchant site to TC Trustee Host, configure the fields using the TC Vault interface.

One-Time Sale Example HTML

```
<html>
<head> <title> TC Trustee Host: Payment</title> </head>
<body>
<h2> TC Trustee Host: Payment</h2>
<form action=https://vault.trustcommerce.com/trustee/payment.php>
      <table align=center border=1>
      <tr>
            <td> token </td>
            <td> <input type=text name=token> </td>
            <td> This is the token returned(required) </td>
      </tr>
      <tr>
            <td> amount </td>
            <td> <input type=text name=amount> </td>
            <td> This is the amount of the transaction in dollars
(required) </td>
```

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```
      </tr>
      <tr>
            <td> name </td>
            <td> <input type=text name=name> </td>
            <td> This is the name of the cardholder </td>
      </tr>
      <tr>
<td> ticket </td>
<td> <input type=text name=ticket> </td>
<td> This is the unique identifier of the transaction</td>
      </tr>
      </table>
</form>
</body>
</html>
```

Storing Credit Card Data

The following example shows how to use TC Trustee Host to store customer payment information only.

Note: Return parameters are submitted to TrustCommerce for processing via the URL below (see Return Status Parameters):
https://vault.trustcommerce.com/trustee/payment.php

If you are storing a BillingID for store only transactions, the **Cycle** field is required. The **Amount** field is required. Pass the value of 0.00 for store only transactions.

Additional TC Trustee Host fields are configured through the TC Vault interface (see TC Trustee Host Field List). These fields can be passed from your site to TC Trustee Host. When the **Store Only** function is enabled, you cannot schedule Recurring or Installment payments.

Store Only Payment HTML

```
<html>
<head> <title> TC Trustee Host: Store Only </title> </head>
<body>
<h2> TC Trustee Host: Store Only </h2>
<form
action=https://vault.trustcommerce.com/trustee/payment.php>
      <table align=center border=1>
```

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```
      <tr>
            <td> token </td>
            <td> <input type=text name=token> </td>
            <td> This is the token returned(required) </td>
      </tr>
      <tr>
            <td> name </td>
            <td> <input type=text name=name> </td>
            <td> This is the name of the cardholder </td>
      </tr>
      <tr>
            <td> ticket </td>
            <td> <input type=text name=ticket> </td>
            <td> This is the unique identifier of the
transaction</td>
      </tr>
      <tr>
            <td> cycle </td>
            <td> <input type=text name=cycle> </td>
            <td> This is how often to repeat the cycle in days
'd', weeks 'w',
                  months 'm', or years 'y' </td>
      </tr>
      <tr>
            <td> amount </td>
            <td> <input type=text name=amount> </td>
            <td> The amount of the transaction. For Store Only
transactions the
                  amount should be passed as 0.00 </td>
      </tr>
      </table>
</form>
</body>
</html>
```

Note: To display the anticipated payment amount on the TC Trustee page, pass an amount greater than $0.00 in the amount parameter. The following message appears: Your payment will be made every (0) Day(s) for the following amount:"

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Recurring Payments

This section displays HTML code samples for processing recurring payment transactions using TC Trustee Host.

Note: Return parameters are submitted to TrustCommerce for processing via the URL below (see Return Status Parameters).
https://vault.trustcommerce.com/trustee/payment.php

If you are storing a BillingID for recurring transactions, the **Cycle** field is required. Do not include the **Payments** field on a Recurring transaction. The **Payments** field applies to installment payments.

Additional TC Trustee Host fields are configured through the TC Vault interface. These fields can be passed from your site to TC Trustee Host.

Recurring Payment Example HTML

```
<html>
<head> <title>TC Trustee Host: Recurring Payment</title> </head>
<body>
<h2>TC Trustee Host: Recurring Payment</h2>
<form
action=https://vault.trustcommerce.com/trustee/payment.php>
      <table align=center border=1>
      <tr>
            <td> token </td>
            <td> <input type=text name=token> </td>
            <td> This is the token returned(required) </td>
      </tr>
      <tr>
            <td> amount </td>
            <td> <input type=text name=amount> </td>
            <td> This is the amount of the transaction in
dollars (required) </td>
      </tr>
      <tr>
            <td> name </td>
            <td> <input type=text name=name> </td>
            <td> This is the name of the cardholder </td>
      </tr>
      <tr>
```

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```
            <td> ticket </td>
            <td> <input type=text name=ticket> </td>
            <td> This is the unique identifier of the
transaction</td>
      </tr>
      <tr>
            <td> cycle </td>
            <td> <input type=text name=cycle> </td>
            <td> This is how often to repeat the cycle in days
'd', weeks 'w',
                 months 'm', or years 'y' </td>
</tr>
<tr>
            <td> payments </td>
            <td> <input type=text name=Payments> </td>
            <td> This is used to identify when a cycle or "bill
every" payment
                 should end for TC Trustee Host recurring
payments</td>
      </tr>
      <tr>
            <td> start </td>
            <td> <input type=text name=start> </td>
            <td> This is the start date of the transaction
(YYYY-MM-DD) </td>
      </tr>
      </table>
</form>
</body>
</html>
```

Installment Payments

If you are storing a BillingID for installment transactions, the **Cycle** field is required. The **Payments** field is required for Installment transactions.

Installment Payment Example HTML

```
<html>
<head> <title>TC Trustee Host: Installment Payment</title>
</head>
<body>
<h2>TC Trustee Host: Installment Payment</h2>
```

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```
<form
action=https://vault.trustcommerce.com/trustee/payment.php>
      <table align=center border=1>
      <tr>
            <td> token </td>
            <td> <input type=text name=token> </td>
            <td> This is the token returned(required) </td>
      </tr>
      <tr>
            <td> amount </td>
            <td> <input type=text name=amount> </td>
            <td> This is the amount of the transaction in
dollars (required) </td>
      </tr>
      <tr>
            <td> name </td>
            <td> <input type=text name=name> </td>
            <td> This is the name of the cardholder </td>
      </tr>
      <tr>
            <td> ticket </td>
            <td> <input type=text name=ticket> </td>
            <td> This is the unique identifier of the
transaction</td>
      </tr>
      <tr>
            <td> cycle </td>
            <td> <input type=text name=cycle> </td>
            <td> This is how often to repeat the cycle in days
'd', weeks 'w',
                  months 'm', or years 'y' </td>
      </tr>
      <tr>
            <td> payments </td>
            <td> <input type=text name=Payments> </td>
            <td> This is used to identify when a cycle or "bill
every" payment
                  should end for TC Trustee Host recurring
payments</td>
      </tr>
      <tr>
            <td> Unstore After Final Payment </td><td><select
                  name="lastpaymentunstore"1>
```

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```
            <option value="n">No</option>
            <option value="y" selected>Yes</option></select>
            <td> This is the start date of the transaction
(YYYY-MM-DD) </td>
      </tr>
      </table>
</form>
</body>
</html>
```

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Return Status Parameters

Transactions processed using TC Trustee Host return several parameters indicating success or failure. A properly formatted transaction always returns a transaction ID (TransID). The transaction ID is the unique identifier for the transaction. You can use the transaction ID to retrieve the transaction from the TC Vault Web site or access the transaction in the future. If the Successful and Unsuccessful payment URLs are configured in TC Vault and **Enable output to URL** is selected, the GET return parameters are provided to URLs based on the transaction status. The user is directed to one of the payment URLs once processing is complete. The token is also returned as a parameter for reference. Transactions always return a status parameter indicating success or failure.

Status can be one of the following:

Return Status Parameters	
Status Value	**Description**
approved	Transaction authorized
accepted	Transaction successfully accepted in the system
decline	Transaction declined (see Decline Types)
baddata	Invalid parameters passed
error	System error when processing transactions (see Error Types for details)

Approved means that the transaction was successfully authorized by the bank. **Accepted** means that the transaction was queued in the system without errors, but could be rejected later. An example of the difference is a Sale versus a Credit. A Sale is a real-time authorization, so it returns **Approved** on success.

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TC Trustee Host Field List

The following list of fields is available for use with TC Trustee Host. Prior to implementing these fields, you must ensure that they are configured for use with TC Trustee Host. The Input and Output Field columns identify if the field is an input field, output field, or both.

TC Trustee Host Field List			
Field Name	**Input Field**	**Output Field**	**Description**
amount	X	X	Amount of the transaction in cents (for example: "500" is $5.00)
ticket	X	X	Merchant purchase identifier (order number); by default, the purchase identifier is the TransID if the merchant does not enter a number
name	X	X	Cardholder name
address1	X	X	First line of cardholder street address
address2	X	X	Second line of cardholder street address
city	X	X	Cardholder city
state	X	X	Two-character code for the cardholder state or the full region or province for international addresses
zip	X	X	The cardholder zip code (five or nine digits with no spaces or dashes) or the full postal code for international addresses
column_separator			Field used to create a column separator on the TC Trustee Host payment page
transid		X	TrustCommerce transaction identifier returned by an approved transaction
authcode		X	The five or six-character approval code returned by an approved transaction
billingid		X	A six-character alphanumeric BillingID returned when processing recurring/installment and store only transactions
card_type		X	Type of card used to process the transaction (for example, Visa, MasterCard, AMEX, Discover, and so on)
cc	X	X	The cardholder credit card number
exp	X	X	The four digit expiration date (mmyy)
cvv	X	X	Numeric card verification value or card verification

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TC Trustee Host Field List			
Field Name	**Input Field**	**Output Field**	**Description**
			code
or			Separator
blank			Field used to create separation between fields or sections on the TC Trustee Host payment page
verify	X		Set to **y** to validate a credit card (does not apply to ACH transactions)
country	X	X	Cardholder country (leave blank for United States)
phone	X	X	Cardholder phone number
email	X	X	Cardholder email address
operator	X	X	Operator who entered the transaction (helps merchants with order tracking and reporting)
shiptosame	X		**y** or **n** (defaults to **n**) If **y**, no other shipto_ parameters are passed
shipto_name	X	X	Name of the product recipient
shipto_address1	X	X	First line of the shipping address
shipto_address2	X	X	Second line of the shipping address
shipto_city	X	X	City to which the products are shipped
shipto_state	X	X	State to which the products are shipped
shipto_zip	X	X	Postal code to which the products are shipped; if the product associated with this transaction is not shipped, type the merchant's address in this field.
shipto_country	X	X	Country to which the products are shipped (leave blank for the United States)
shipdate	X	X	Date the products are shipped
start	X	X	Beginning of a recurring billing cycle; by default, the cycle starts the day the recurring payment is scheduled. To specify a start date, pass the following in the **start** field: YYYY-MM-DD (for example, "2013-05-01 would be May 1, 2013).
cycle	X		Recurring payment cycle in days (**d**), weeks (**w**), months (**m**), or years (**y**); For example, a value of **3d** in this field would cause the charge to recur every three days. A value of **2m** would cause the

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TC Trustee Host Field List			
Field Name	**Input Field**	**Output Field**	**Description**
			charge to recur every two months. By default, the cycle starts the day the BillingID is stored.
cyclepayment	X		Used to identify a transaction as a payment toward an existing recurring or installment payment
payments	X		End of recurring payment cycle If this field is not passed or is blank, the recurring payment cycles indefinitely or until it is changed using TC Vault interface.
firstamount	X	X	First amount charged for recurring or installment payments
lastamount	X	X	Last amount charged for recurring or installment payments
authnow	X		Defines whether an authorization for the amount specified should be attempted immediately If **start** is defined as **3d**, a **preauth** is performed the day the data is entered and a **postauth** is performed three days later. The start field determines when the **postauth** occurs. If the start field is not defined, the **postauth** is performed at or around the next 02:00 cycle. Set this to **y** to attempt an authorization immediately. By default, this is set to **n**.
lastpaymentunstore	X		If **y**, the BillingID is removed upon final payment in the billing cycle
totalpayments	X	X	Total number of installment payments the merchant is charging to the cardholder; by default, this field is set to **0** to indicate that the Billing ID requested is either recurring or a store only
fraudthreshold	X	X	Fraud threshold for the current transaction; if the transaction receives a Fraud Score below this threshold, the transaction is declined.
ip	X	X	Originating TCP/IP server address (customer)
token	X		The token must be requested and is required for all transactions (not visible to the customer)

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TC Trustee Host Field Options

Overview

TC Trustee Host enables you to customize fields on your payment pages and customer receipts.

You can customize TC Trustee Host fields with the options in the table below.

TC Trustee Host Field Options	
Option	**Description**
Field Name	Name of the field
Name to Display	Name of the field displayed on the payment page
Type	Hidden - does not appear on payment page or receipt Text Input - allows user to type a valid entry in the field on the payment page (see TC Trustee Host Validation Functions) Read Only - Field appears on payment page and no user input is allowed Receipt Only - Field appears on the receipt only Separator (No Input) Entire Width of Display
Input Box Size	0-999 characters
Input Max Length	Maximum number of characters a user can type in the field on the payment page (0-999 characters)
Required	**Yes** or **No**. If **Yes**, the field must be filled in with a valid entry in order to process the transaction and, if **No**, the field is optional. **Important:** If you designate a field to be **Required**, be sure the field is also **Enabled**.
Enabled	**Yes** or **No**. If **Yes**, the field appears on the payment page and, if **No**, the field is hidden
Display on Receipt	**Yes**, **No**, or **Optional**.
Text to Left of Input Box Payment page and receipt page	20 character limit
Text to Left of Data	20 character limit

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TC Trustee Host Field Options	
Option	**Description**
Receipt page only	
Text to Right of Input Box Payment page and receipt page	20 character limit
Text to Right of Data Receipt Page Only	20 character limit
Roll over help text	Type end user help tips in this text box to create a Help link on the TC Trustee Host payment page. When the user mouses over the Help link, the help text appears in a popup window.

TC Trustee Host Field Validation Functions

You can configure TC Trustee Host fields to use one of the validation functions in the table below.

Note: You cannot modify validation functions for some fields such as amount, cc, exp, cvv, cvc, routing, and account.

TC Trustee Host Field Validation Functions	
Function	**Description**
None	No validation is performed
Money	TC Trustee Host allows five digits to the left of the decimal point and two digits to the right of it. The decimal point separating dollars and cents is required. A comma denoting an amount of one thousand dollars or more is optional. The Currency symbol ($) is optional. For example, valid amounts are $10,000.00 with the optional currency symbol and comma or 10000.00 without.
Credit Card Number	12 to 16 digits
Expiration Date	MMYY
CVV/CVC/CID	Either three or four digits
ACH Routing Number	Nine digits

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TC Trustee Host Field Validation Functions	
Function	**Description**
ACH Account Number	Minimum of two digits; can be any number of digits
Alpha-numeric text	a-z, A-Z, 0-9, ., -, =, +, _, (,), %, $, #, @, !,or blank
US State (2 Character)	Any combination of two letters.
US Zip Code	Five digits followed by an optional dash and four digits
Numeric	All characters must be numbers
BillingID Cycle	One or two digits followed by d, w, m, or y; for example, 30d, meaning 30 days
Starts With	Checks for input that starts with the provided string
Starts With (Alpha only)	Checks for input starting with letters only (a-z, A-Z)
Starts With (Numeric only)	Checks for input starting with numbers only
Starts With (Alpha-Numeric only)	Checks for input starting with letters or numbers (a-z, A-Z, 0-9)
Regular Expression	Validates the string against the provided regular expression

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Testing Applications

Overview

This section contains sample credit card information, routing numbers, and account numbers for testing deployments to TC Trustee Host. To begin testing, merchant accounts must be set up in test mode. TrustCommerce generally starts all merchants in test mode until they are ready for production.

Approved Test Data

The following table contains sample cardholder data you can use to test running approved transactions, address matching transactions, and if applicable, CVV/CVC2/CID2 matching demo transactions:

Credit Card Approved Test Data				
Card Type	**Card Number**	**Exp Date**	**Address1, City, State, and Zip**	**CVV**
Visa	4111111111111111	1215	123 Test St., Somewhere, CA, 90001	123
MasterCard	5411111111111115	1215	4000 Main St., Anytown, AZ, 85001	777
American Express	341111111111111	1215	12 Colorado Blvd., Elsewhere, IL, 40000	40000
Discover	6011111111111117	1215	6789 Green Ave., Nowhere, MA, 12345	N/A
Diners Club	36484444444446	1215	7390 Del Mar Blvd, Anytown, NY, 01101	N/A
JCB	213122222222221	1215	350 Madison Ave., Springfield, OH, 40000	N/A

The following table contains an ACH routing number and account number that is accepted in the TrustCommerce system if the account is in test mode or demo mode:

ACH Approved Test Data	
Routing	**Account**
789456124	55544433221

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Decline Test Data

The following sample card numbers will be declined in the TrustCommerce system for test and demo mode accounts with a status of **decline** and a generated **declinetype** value as listed below:

Decline Test Data			
Card Number	**Exp. Date**	**CVV**	**Decline Type**
4111111111111111	1215	1234	decline
5555444433332226	1215	7777	call
4444111144441111	1215	123	carderror

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Decline Types

Overview

When status is set to **decline**, the **declinetype** field contains one of the following:

Decline Type Fields	
Declinetype Value	**Description**
decline	Amount-related decline (for example, insufficient available funds on the credit card)
avs	Address verification system (AVS) failure; address does not match the billing address on file at the bank
cvv	CVV failure (incorrect verification number provided)
call	Manual authorization by phone required; call credit card customer service number for offline authcode and/or check the **offlineauthcode** field
expiredcard	Card expired; request updated expiration date from cardholder
carderror	Invalid card number; entered incorrectly or card reported stolen
authexpired	Attempt to **postauth** an expired **preauth** (more than 14 days old)
fraud	TC CrediGuard fraud score below the requested threshold
blacklist	TC CrediGuard blacklist value triggered
velocity	TC CrediGuard velocity control triggered

Note: If you are using the default Trustee receipt page, declinetype is displayed with **Reason**.

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Error Responses

Overview

Before payment information is sent for processing, the data is validated by TrustCommerce. If a payment transaction field contains invalid information, a **baddata** error message appears. Additionally, the field containing the **baddata** (known as the offender) is listed under the message.

The notification message allows the operator to correct the invalid information and re-send for processing. Some examples of invalid information are:

- Missing data (only two digits of a three digit CVV code), or
- Incorrect data (transposing numbers or entering a wrong date)

The error field may be returned as one of the following:

Error Responses	
Error Value	**Description**
missingfields	Missing one or more required fields for the transaction type
extrafields	Contains fields not allowed for the transaction type
badformat	Improperly formatted field (for example, non-digit characters in a digit field)
badlength	Field longer or shorter than the server allows
merchantcantaccept	Merchant cannot accept data passed in a field (if cc is the offending field, the credit card type may not be supported for the merchant account)
mismatch	Data in an offending field does not crosscheck with another offending field

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Error Types

Overview

A status of **error** indicates that an error occurred when attempting to process the transaction. If the status is **error**, the **errortype** field is returned as one of the following:

Error Type Fields		
Errortype Value	**Meaning**	**Description / Required Action**
cantconnect	Could not connect to TrustCommerce (check internet connection)	Communication error; check Internet connection
dnsvalue	TC Trustee Host unable to resolve DNS hostnames	Test transaction identified DNS connectivity issue; verify machine can resolve domain names before moving into production
linkfailure	Connection established, then disconnected before the transaction could be completed (check the transaction to avoid duplication)	Communication response problem; check transaction to avoid duplication
failtoprocess	Transaction process failed	Transmission between TrustCommerce and payment processor failed; retry transaction
notallowed	CustID configuration not authorized to perform requested action	CustID limitation verified or need for CustID reconfiguration to allow action identified

Important: **linkfailure** and **failtoprocess** errors indicate a non-specific communication failure between the payment processor and TrustCommerce. Resubmitting the transaction may result in a duplicate authorization reservation, though it will not result in a duplicate capture. To avoid duplication, check the transaction independently to determine if the transaction was processed successfully.

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Troubleshooting / FAQ

This section describes some common problems and their solutions. For assistance, contact your TrustCommerce Account Manager or Solutions Consultant at (800) 915-1680, Option 3.

Frequently Asked Questions and Solutions

I am passing the parameters for recurring or installment payments, but all of my transactions are being processed as sales.

The **Cycle** and **Payment** fields may be missing in the TC Trustee Host field list. Add these fields to the TC Trustee Host field list to make them available when processing recurring or installment payments with TC Trustee Host.

I am attempting to store customer payment information, but all of my transactions are being processed as sales.

The **Store Only** option in the TC Vault must be enabled in order to collect customer payment information for a BillingID using TC Trustee Host.

I attempted my first transaction with TC Trustee Host and received a "Session Expired" message.

The session may expire if you do not save your TC Trustee Host settings in the TC Vault before starting the integration process. Save your TC Trustee Host settings in the TC Vault and try again.

I attempted to process a subsequent transaction with TC Trustee Host and received a "Session Expired" message.

- You may be submitting a token that has already been used. Tokens are good for one use and one customer only. Make sure you are not passing a token ID received in response to a previous request with subsequent transactions.
- The token may have expired. The token request response is only valid for two hours from the time the merchant requested it.
- You accessed Trustee/payment.php directly.

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Glossary

Address Verification System (AVS)

To reduce credit card fraud, AVS checks to confirm that the billing address given by the customer matches the address the credit card issuing bank has on file.

Authcode

The Authcode is an alphanumeric code that references the approved authorization.

Authorization

The issuing bank verifies that transaction does not exceed the available credit on the card and grants permission to complete the transaction.

Automated Clearing House (ACH)

ACH is a form of electronic payment that works as an electronic check (e-check).

BillingID

The BillingID is a six-digit alphanumeric combination that replaces an ACH or credit card number. The BillingID can be used to securely process future payments on the same credit card or electronic check. This is beneficial with recurring and subscription payments.

Credit

A credit is a merchant-initiated transaction that reimburses funds to the cardholder. A credit is the opposite of a sale.

CustID

The CustID is a Customer ID number that used to log in to the TC Vault and TC Link API. TrustCommerce assigns merchants a CustID when the merchant account is set up.

Merchant

Merchant refers to an individual or business that sells products and/or services.

Operator

An operator is a person who processes transactions in the TC Vault or third-party application. For recording purposes, an operator can input his or her name in the available field located in the Virtual Terminal (VT) to identify that they ran the transaction.

Sale

In TC Trustee Host, a Sale refers to a transaction that is processed in one step; the authorization and the capture are recorded at the same time. At the time of a Sale transaction, the authorization occurs real-time and the transaction will automatically be submitted for settlement.

TC CrediGuard

TC CrediGuard allows clients to customize the settings of the system to reduce the incidence of credit card fraud.

TC Vault

TrustCommerce software provided to merchants to pass credit card information for settlement in an ecommerce or retail/MOTO environment.

Token

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A block of text used to authenticate the customer to the TC Trustee application.

Transaction

Any action between a cardholder and a merchant that results in activity on the account, such as an authorization and settlement or a credit.

Transaction ID

All transactions run through the TrustCommerce system are assigned a 13-digit transaction ID in the format xxx-xxxxxxxxxx.

Verify

To verify the card is to send the credit card number and expiration date to the issuing bank to see if the information is valid. If it is valid, the user can process the transaction at a later time.

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