



Gateway Integration Specifications Check/ACH Processing

Version 3.1

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INTRODUCTION

The following information is provided to clients of Trine Commerce Systems, Inc. and its system and network partners for integration of the payment gateway into their internal networks. These instructions can also be used to integrate a secure Web page form with the gateway.

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1. HTML Form Requirements

Gateway URL: `https://www.trinecs.net/processor/check/form`
Form `method="post"`
`action="https://www.trinecs.net/processor/check/form"`
(Example form can be found at www.TrineCS.com/docs)

Test server: Use the Test Server URL for integration programming and testing. The hash provided for testing is unique to the testing environment. A new production hash will be provided upon completion of integration programming.

In all cases, replace the live server URL with the following:
`https://test.trinecs.com/...`

Required fields:

hash	Hidden 32 character identification string assigned by the server.
response_type	Hidden number telling the gateway what type of response it should have for a successful or a failed transaction. 1 means that the pages will be specified in the form fields response_success and response_failure

and the browser will be forwarded to one of these pages. 0 means that the gateway will simply print out a page to the browser, successful or not.

response_success

This is the web page that a person should be forwarded to if the transaction has been successful. Must be a fully qualified and valid URL. Is only required if **response_type** = 1 and is a hidden field.

response_failure

The web page that a person will be forwarded to if the transaction is not successful. A form field called **error** will be appended to the URL and contains a comma separated list of reasons why the transaction failed. Must be a fully qualified and valid URL. Is only required if **response_type** = 1 and is a hidden field.

See the “HTML Response from Network” section below.

transit_route	Transit Route number from check
account	Account number from check
account_type	Values: “Checking” or “Savings” Not case sensitive
sec_code	Values: CCD, PPD, ARC, RCK, WEB, TEL, BOC
name	The billing name. While in most cases this would be the same as the cardholder's name, it is kept separate just in case it is needed.
address1	First line of address; second line is optional
transaction_type	Hidden field with value “ACHDEBIT” or “ACHCREDIT”
amount	Total amount of the transaction

2. Fields Available But Not Required

check_num	Check number from the check.
counterparty	Values: “Individual” or “Business” Not case sensitive.
city	City of address
state	2 digit state code, CA, TX, MB (Manitoba), etc.
zip	zip code
phone	Numeric format only (5125551212).
driver_license	Driver license number
driver_license_state	State of issue of driver license

merchant_1	User-configurable fields. These fields may be visible or hidden. They do appear in email confirmations. 30 character limit each. These fields are configured in the Merchant Setup area.
merchant_2	

Other Billing Information Fields:

company	
address2	
country	2 digit ISO country code, US, CA, etc.
fax	
email	email address where confirmations are sent. If no email is provide, a confirmation will NOT be sent.

Shipping Information

shipping_name
shipping_company
shipping_address1
shipping_address2
shipping_city
shipping_state
shipping_country
shipping_zip

Order Information

description	A free-text field describing what's been sold.
sub_total	Product/Service cost not including shipping or taxes
shipping_type	A free text field describing the shipping method. e.g. USPS Priority Mail
shipping_cost	Cost of shipping and/or handling
tax	Total sales tax charged

3. XML Processing

Gateway URL <https://www.trinecs.net/processor/check/xml>
Transaction types supported are:
ACHDEBIT, ACHCREDIT, VOID (see 3.a.)

Example XML Request (with example text):

```
<request>
<hash>1a3255abdbe5b764d66fef79eb85d4dc</hash>
<trancsction_type>ACHDEBIT</transaction_type>
<name>Buyer Name</name>
<transit_route>123456789</transit_route >
<account>0123456789</account>
<counterparty>business</counterparty>
<account_type>checking</account_type>
<sec_code>PPD</sec_code>
<check_num>1011</check_num>
<company>Company Name</company>
<address1>130 Company Address</address1>
```

```

<address2>Suite #512</address2>
<city>Company Town</city>
<state>WA</state>
<country>US</country>
<zip>12345</zip>
<phone>1234567890</phone>
<fax>1234567891</fax>
<email>email@email.com</email>
<shipping_name>Name Shipped To</shipping_name>
<shipping_company>Company Name</shipping_company>
<shipping_address1>130 Company Road</shipping_address1>
<shipping_address2>Suite #512</shipping_address2>
<shipping_city>Company Town</shipping_city>
<shipping_state>WA</shipping_state>
<shipping_country>US</shipping_country>
<shipping_zip>12345-6789</shipping_zip>
<description>Name of tem ordered</description>
<sub_total>10.00</sub_total>
<shipping_type>USPS Priority Mail</shipping_type>
<shipping_cost>2.00</shipping_cost>
<tax>1.00</tax>
<amount>13.00</amount>
</request>

```

Example XML Response (with example text):

Success	<pre> <response> <isError>No</isError> <time>2009-06-13 20:24:30</time> <invoice_num>1000</invoice_num> </response> </pre>
Error	<pre> <response> <isError>Yes</isError> <error>Bad Card Number</error> <error>Bad Name on card</error> </response> </pre>

3. a. Processing Void Transactions

Purpose	To Void a previously processed transaction.
Process	The original transaction will return an identifier that is unique to the transaction. This identifier may vary by processor. The identifier is then used in a second transaction in the invoice_num field, with VOID as the transaction_type.
URL	https://www.trinecs.net/processor/check/xml

Example XML Request (with example text):

```

<request>
<transaction_type>VOID</transaction_type>

```

```
<invoice_num>123</invoice_num>
<hash_id>123124124124</hash_id>
</request>
```

Example XML Response (with example text):

Success	<pre><response> <isError>No</isError> <time>2007-20-10 12:12:34</time> <invoice_num>123</invoice_num> </response></pre>
Error	<pre><response> <isError>Yes</isError> <error>Some Error Message</error> </response></pre>

3. b. Special Case: Fee Information Request

Purpose: Through an xml api call, request a fee calculation for an amount on a particular terminal.

Check URL: <https://www.trinecs.net/processor/check/feeinfo>

Fields:

amount	amount requested
fee	calculated fee for given amount
basefee	base fee applied
feepercent	percentage applied

Calculation algorithm:

The fee field has been pre-calculated for you. The basefee and feepercent is extra data that you may or may not need (e.g. in case you need to explain how the fee was calculated).

```
if (amount * feepercent/100) > basefee)
    return amount * feepercent;
else
    return basefee;
```

Example XML Request (with example text):

```
<request>
<hash>123124124214</hash> *
<amount>10.00</amount>
</request>
```

** The hash for a terminal with an associated terminal to accept the fee is required. This is set on the gateway by the merchant account representative.*

Example XML Response (with example text):

Success Case: <response>
 <isError>No</isError>
 <time>2007-07-23 14:23:00</time>
 <amount>10.00</amount>
 <fee>1.00</amount>
 <basefee>1.00</basefee>
 <feepercent>2.3</feepercent>
 </response>

Failure Case: <response>
 <isError>Yes</isError>
 <error>Invalid User</error>
 </response>

3. c. Transaction Report Retrieval

Purpose: Transactions for any date and terminal can be downloaded for integration to client networks and programs.

URL: <https://www.trinecs.net/virtual/report/check>

Fields

<hash>	Required
<passcode>	Required – Set as an option in the merchant terminal
<date>	Optional – Default is current date

Fields Returned

The following fields are returned if not blank. Blank fields are NOT returned.

id	fax
consumer_reference	email
transaction_date	driver_license
transaction_type	driver_license_state
status	amount
status_text	sub_total
void	tax
terminal_id	description
transit_route	shipping_type
account	shipping_cost
account_type	shipping_name
counterparty	shipping_address
check_number	shipping_address2
name	shipping_city
company	shipping_state
address1	shipping_zip
address2	merchant_1
city	merchant_2
state	ipaddress
country	convenience_fee
phone	

Sample Request (Actual on test server)

<http://test.trinecs.com/virtual/report/check?hash=b88f1a109ebe2a3dffa3c8cf180dd429&date=2009-05-27&passcode=password>

Example XML Response (with example text):

```
<report_check date='2009-05-27'>
  <transaction>
    <id>65</id>
    <transaction_date>2009-05-27 02:02:06</transaction_date>
    <transaction_type>ACHDEBIT</transaction_type>
    <void>N</void>
    <terminal>admin</terminal>
    <transitroute>123456789</transitroute>
    <account>*****20c6</account>
    <address1>123 Pilot Point</address1>
    <address2>Suite 34</address2>
    <city>Nantucket</city>
    <state>MA</state>
    <phone>123-123-1234</phone>
    <email>gstarnes@is-net.</email>
    <amount>3.00</amount>
    <sub_total>0</sub_total>
    <tax>0</tax>
    <description>Recurring check test.</description>
    <shipping_cost>0</shipping_cost>
    <ipaddress>74.92.222.101</ipaddress>
    <convenience_fee>0</convenience_fee>
  </transaction>
</report_check>
```

4. JSON Processing

Gateway URL <https://www.trinecs.net/processor/check/json>

Transaction types supported are:
ACHDEBIT, ACHCREDIT, VOID

Example JSON Request (with example text):

```
{
  "hash": "1a3255abdbe5b764d66fef79eb85d4dc",
  "transaction_type": "ACHDEBIT",
  "response_type": "0",
  "name": "Buyer Name",
  "transit_route": "123456789",
  "account": "0123456789",
  "counterparty": "business",
  "account_type": "checking",
  "sec_code": "PPD",
  "check_num": "1011"
```



```
    "company": "Company Name",
    "address1": "130 Company Address",
    "address2": "Suite #512",
    "city": "Company Town",
    "state": "WA",
    "country": "US",
    "zip": "12345-6789",
    "phone": "123-456-7890",
    "fax": "123-456-7891",
    "email": "email@email.com",
    "shipping_name": "Name Shipped To",
    "shipping_company": "Company Name",
    "shipping_address1": "130 Company Road",
    "shipping_address2": "Suite #512",
    "shipping_city": "Company Town",
    "shipping_state": "WA",
    "shipping_country": "US",
    "shipping_zip": "12345-6789",
    "description": "Name of item ordered",
    "invoice_num": "1000",
    "sub_total": "10.00",
    "shipping_type": "USPS Priority Mail",
    "shipping_cost": "2.00",
    "tax": "1.00",
    "amount": "13.00",
    "fee": "1.00",
    "total": "14.00"
  }
```

Example JSON Response (with example text):
Success Case

```
{
  "isError": "No",
  "time": "2009-06-13 20:24:30",
  "invoice_num": "1000"
}
```

Error Case

```
{
  "isError": "Yes",
  "error": "Bad Card Number",
  "code": "TCS0007"
}
```

5. HTML Responses From The Network

Responses from the network to HTML form processing are handled by hidden field settings in the form. (See response_type in “HTML Form Requirements” above.) Either a simple page with the transaction information will be displayed, or the Gateway can be set to forward the response information to a client-defined Web page. Separate “success” and “error” pages are needed for custom network responses. These are defined in the Required form fields section.

A field named “message” is returned upon a successful transaction, or a field named “error” on a failed transaction. The existence of one of those fields will indicate a failed or successful transaction. The field returned will contain either transaction information, if successful, or an error message, and is automatically added to the end of the redirecting URL. Standard HTML does not support this functionality. It will require a programming to display this.

6. Legal Notice

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