

XML Messenger Interface

Version 1.091

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Introduction

PSiGate specializes in the integration and deployment of e-commerce payment service solutions. PSiGate's payment solutions enable automated and secure authorization and fulfillment of credit card transactions. PSiGate communicates directly with major Canadian and U.S. credit card financial institutions and supports businesses that wish to deploy an online storefront.

This document provides merchants and their affiliates the tools to integrate PSiGate's ***XML Messenger Interface*** so PSiGate may process their transaction requests.

Note: Only credit card payment processing is supported at this time.

Test Account Information

PSiGate's testing environment supports a shared test account that you are welcome to use while developing and testing your interface.

IMPORTANT:

- *DO NOT use real credit card numbers within the testing environment.*
- *When you are ready to go live, send an email to support@psigate.com to receive your production URL.*

Send your test transactions to: <https://dev.psigate.com:7989/Messenger/XMLMessenger>.

To process a transaction through the test account, pass the following:

StoreID: teststore
Passphrase: psigate1234

To review your test transactions, log into <https://dev.psigate.com> with the following account information:

CID : 1000001
User: teststore
pass: testpass

If you require an unshared test account, we will provide one to you once you have begun the application process.

Important

The ***XML Messenger Interface*** includes elements that you may use to pass your customer's Card ID number (three or four digit number which indicates the presence of the credit card) and Level 2 Card data (additional information that may appear on a customer's credit card statement).

To include these elements as part of your transaction request, follow the sample code and refer to the *CardIDNumber*, *CardLevel2ComCardType*, *CardLevel2PO* and *CardLevel2Tax* elements within the ***Detailed Element List – Credit Card Payment***.

Creating an XML request

The Request Structure

The *XML Messenger Interface* sends transaction requests to PSiGate for real-time processing. Each XML transaction request is enclosed within an *Order* element, meaning that the request must begin with `<Order>` and end with `</Order>`. The transaction request is composed of transaction elements. The minimum number of transaction elements needed to successfully transmit an order depends on the type of transaction request.

*****Note:** The ampersand symbol (“&”) is not a valid character and will cause an error if inputted within any element of the XML request.

The following is an example of a basic **Sale** transaction request:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

This request processes a **Sale** transaction in the “**teststore**” account for ten dollars and applies the charge to the credit card number, “4111111111111111” whose expiration date is “02/08”. The *SubTotal* element is the dollar value of the transaction. The *PaymentType* element, which is set to “CC” (credit card) in the above example, establishes the payment context. The *CardAction* element, which is set to “0” (**Sale** transaction) in the above example, determines the type of transaction request. The *CardNumber*, *CardExpMonth* and *CardExpYear* elements set the credit card details. The *CardIDNumber* element tells the payment engine to verify that “3422” is the security code printed on the card. For a list of the elements required for each transaction type, please refer to *XML Interface - Order Elements*.

Adding Order Detail

Once the basic structure of the transaction request is complete, you can add more detailed information to the request by including additional *Order* elements. For a complete list of recognized *Order* elements, refer to *XML Interface Detailed Element Listing – General Order Elements*.

The following is an example of a **Sale** transaction with additional order detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
  <Baddress2>Apt 6</Baddress2>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Phone>416-555-2092</Phone>
  <Fax>416-555-2091</Fax>
  <Email>someone@somewhere.com</Email>
  <Comments>No comments today</Comments>
  <Tax1>5.00</Tax1>
  <ShippingTotal>5.00</ShippingTotal>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

Adding Item Detail

You may choose to include item details within your transaction requests. *Item* elements you include are displayed in your online reports and email receipts. The *Item* element's predefined sub elements are listed in the *XML Interface Detailed Element Listing – Item Elements* table.

Note: If item detail is included in a transaction request, the *Subtotal* value will be calculated from *ItemPrice* and *ItemQty* values.

Note: If the *Subtotal* element is included in a transaction request, the derived item detail *Subtotal* amount will supersede the amount given in the *Subtotal* element.

The following is an example of a **Sale** transaction with item detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
```

```
<Baddress2>Apt 6</Baddress2>
<Bcity>Toronto</Bcity>
<Bprovince>Ontario</Bprovince>
<Bpostalcode>L5N2B3</Bpostalcode>
<Bcountry>Canada</Bcountry>
<Phone>416-555-2092</Phone>
<Fax>416-555-2091</Fax>
<Email>someone@somewhere.com</Email>
<Comments>No comments today</Comments>
<Item>
  <ItemID>PSI-BOOK</ItemID>
  <ItemDescription>XML Interface Doc</ItemDescription>
  <ItemQty>2</ItemQty>
  <ItemPrice>10.00</ItemPrice>
</Item>
<Tax1>5.00</Tax1>
<ShippingTotal>5.00</ShippingTotal>
<PaymentType>CC</PaymentType>
<CardAction>0</CardAction>
<CardNumber>4111111111111111</CardNumber>
<CardExpMonth>02</CardExpMonth>
<CardExpYear>08</CardExpYear>
<CardIDNumber>3422</CardIDNumber>
</Order>
```

This request adds a single item identified as “PSI-BOOK” to the order. The *Subtotal* value automatically calculates a *Subtotal* amount of \$20.00 from the *ItemQty* which is “2” and the *ItemPrice* which is “\$10.00”.

Adding Item Options

Additionally, merchants may require customized item descriptors. Merchants may add item options such as colour, size or weight to their item detail.

The following is an example of a **Sale** transaction with item detail and item options:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bname>John Smith</Bname>
  <Bcompany>PSiGate</Bcompany>
  <Baddress1>123 Main St.</Baddress1>
  <Baddress2>Apt 6</Baddress2>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Phone>416-555-2092</Phone>
  <Fax>416-555-2091</Fax>
  <Email>someone@somewhere.com</Email>
  <Comments>No comments today</Comments>
  <Item>
```

```
<ItemID>PSI-BOOK</ItemID>
<ItemDescription>XML Interface Doc</ItemDescription>
<ItemQty>2</ItemQty>
<ItemPrice>10.00</ItemPrice>
<Option>
  <Type>Electronic</Type>
  <url>http://www.psigate.com/docs/</url>
  <file>XML.doc</file>
</Option>
</Item>
<Tax1>5.00</Tax1>
<ShippingTotal>5.00</ShippingTotal>
<PaymentType>CC</PaymentType>
<CardAction>0</CardAction>
<CardNumber>4111111111111111</CardNumber>
<CardExpMonth>02</CardExpMonth>
<CardExpYear>08</CardExpYear>
<CardIDNumber>3422</CardIDNumber>
</Order>
```

The *Option* sub elements, “*Type*”, “*url*” and “*file*” are **not** predefined. PSiGate will recognize the inputted string of an *Option* sub element as the option name and the inputted string that is enclosed by the *Option* sub element as the option value. For example, if <Colour>Red</Colour> was included as an *Option* sub element, the option name would be “Colour” and its value would be “Red”.

Adding Coupon Detail

The following is an example of a basic **Sale** transaction request with additional coupon detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <Item>
    <ItemID>PSI-BOOK</ItemID>
    <ItemDescription>XML Interface Doc</ItemDescription>
    <ItemQty>2</ItemQty>
    <ItemPrice>10.00</ItemPrice>
  </Item>
  <Item>
    <ItemID>COUPON</ItemID>
    <ItemDescription>10% discount</ItemDescription>
    <ItemQty>1</ItemQty>
    <ItemPrice>-2.00</ItemPrice>
  </Item>
</Order>
```


This request includes a negative dollar amount for one of the items. The payment engine allows negative dollar amounts for individual items as long as the entire order is for a positive dollar amount.

Note: If the coupon is a percentage of the order total, it must be calculated and sent as a negative dollar amount to apply to the order total.

Adding Fraud Checking Detail

To fully utilize this payment engine's fraud checking capabilities, you must include credit card verification data (CVV, CV2 etc.); address verification data and the customer's IP address. For a complete list of Fraud checking responses, refer to ***Result Elements – Payment Type: Credit Card***.

The following is an example of a **Sale** transaction with additional fraud checking detail:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Bcity>Toronto</Bcity>
  <Bprovince>Ontario</Bprovince>
  <Bpostalcode>L5N2B3</Bpostalcode>
  <Bcountry>Canada</Bcountry>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CustomerIP>192.0.10.55</CustomerIP>
  <CardIDNumber>3422</CardIDNumber>
</Order>
```

This request sends the customer's IP address and security number (3 or 4 digit number found on the front/back of the credit card) to PSiGate's payment engine for verification. The *CardIDNumber* element verifies that the customer has correctly entered the card's security number while the *CustomerIP* element is used to verify the city, state/province and country of the customer's IP. The payment engine returns response thru the IPCity, IPRegion and IPCountry response variables. The IP location responses can then be compared to the inputted Bcity, Bprovince and Bcountry.

Adding Level 2 Card Data Detail

The following is an example of a basic **Sale** transaction request with additional Level 2 card data:

```
<?xml version="1.0" encoding="UTF-8"?>
<Order>
  <StoreID>teststore</StoreID>
  <Passphrase>psigate1234</Passphrase>
  <Subtotal>10.00</Subtotal>
  <PaymentType>CC</PaymentType>
  <CardAction>0</CardAction>
  <CardNumber>4111111111111111</CardNumber>
  <CardExpMonth>02</CardExpMonth>
  <CardExpYear>08</CardExpYear>
  <CardLevel2ComCardType>B</CardLevel2ComCardType>
  <CardLevel2PO>Order 18</CardLevel2PO>
  <CardLevel2Tax>15.00</CardLevel2Tax>
</Order>
```

This request informs the card-issuing bank that the Credit Card type is “business”, the purchase order information is “Order 18” and the total sales tax applied to the order is fifteen dollars. This information may be used by the card issuing-bank to display on your customer’s credit card statement.

Note: Some card-issuing banks require Card Level 2 data.

The Response Structure

If a transaction request communicates with PSiGate's transaction server, PSiGate will return a formatted XML response. The response will be encapsulated within a *Result* element similar to the request structure.

The following is an example of a formatted XML response:

```
<?xml version="1.0" encoding="UTF-8"?>
<Result>
  <TransTime>Mon Nov 08 20:21:06 PST 2004</TransTime>
  <OrderID>2004110820210605147</OrderID>
  <Approved>APPROVED</Approved>
  <ReturnCode>Y:TEST:TESTTRANS:M:X:YYY</ReturnCode>
  <ErrMsg></ErrMsg>
  <TaxTotal>5.00</TaxTotal>
  <ShipTotal>15.00</ShipTotal>
  <SubTotal>55.00</SubTotal>
  <FullTotal>75.00</FullTotal>
  <PaymentType>CC</PaymentType>
  <CardNumber>411111...1111</CardNumber>
  <CardExpMonth>05</CardExpMonth>
  <CardExpYear>07</CardExpYear>
  <TransRefNumber>1bd0082c392b7c5b</TransRefNumber>
  <CardIDResult>M</CardIDResult>
  <AVSResult>X</AVSResult>
  <CardAuthNumber>TEST</CardAuthNumber>
  <CardRefNumber>TESTTRANS</CardRefNumber>
  <CardType>VISA</CardType>
  <IPResult>YYY</IPResult>
  <IPCountry>CA</IPCountry>
  <IPRegion>Ontario</IPRegion>
  <IPCity>Toronto</IPCity>
</Result>
```

The **bolded** elements are common to all payment types. The *italicized* values are specific to the credit card payment type. For more details regarding the credit card payment type return values, please review *Result Elements – Payment Type Credit Card*. The *Approved* sub element indicates the success of the transaction request. If the *Approved* sub element returns any value other than “APPROVED”, the transaction request was unsuccessful. For more details regarding the other possible return values for the *Approved* sub element, refer to *Result Elements – Common Elements*.

Payment Type – Credit Card

Sale

Sale transactions (*CardAction* = 0) authorize and capture funds in a single transaction. Merchants perform **Sale** transactions when services or products are delivered immediately such as software downloads or access to member areas.

PreAuth

PreAuth transactions (*CardAction* = 1) authorize and reserve funds, but do not capture funds until a corresponding **PostAuth** transaction referencing the **PreAuth** transaction is issued. Merchants perform **PreAuth** transactions when services or products are not delivered immediately such as most physical goods. PSiGate guarantees that the card issuer shall reserve the authorized amount for five days.

PostAuth

PostAuth transactions (*CardAction* = 2) capture the funds that were reserved by a previous **PreAuth** transaction. Merchants perform **PostAuth** transactions when they initiate the delivery of the associated service or product. In the case of physical goods, **PostAuth** transactions may only be issued once the product has been shipped or is ready to be shipped.

PostAuth - When a **PostAuth** transaction is issued with no *FullTotal* value, PSiGate will capture the full amount of the associated **PreAuth** transaction.

Partial PostAuth - When a **PostAuth** transaction is issued with a *FullTotal* value less than the amount indicated within the *FullTotal* of the **PreAuth** transaction, PSiGate will capture the lesser amount.

Note: PSiGate's reporting tool includes **PostAuth** functionality, however merchants may also decide to program **PostAuth** functionality into their own reporting tool.

Credit

Credit transactions (*CardAction* = 3) debit your account and refund the cardholder. Merchants perform **Credit** transactions when their customer is to be refunded. You can issue multiple **Credit** transaction requests so long as the sum of those transactions does not exceed the amount of the approved **Sale** or **PostAuth** transaction. If the total amount of credits equals the amount of approved **Sale** or **PostAuth** transaction, the order will be cancelled.

Forced PostAuth

Forced PostAuth transactions (*CardAction* = 4) capture funds based on an authorization number that was not previously obtained through a PSiGate real-time **Sale** or **PreAuth** transaction request. Example: Merchant authorizes the transaction through the authorization center of their merchant issuing bank. Merchants perform **Forced PostAuth** transactions when they need to settle an already authorized transaction.

Warning: The **Forced PostAuth** transaction amount must equal the amount requested when the authorization number was given otherwise the financial institution will reverse the transaction.

Void

Void transactions (*CardAction* = 9) cancel the effect of a previous transaction. Merchants perform **Void** transaction requests to reverse a **PostAuth**, **Sale** or **Credit** transaction and prevent the customer's credit card statement from displaying a record of the transaction. Example: A **Sale** followed by a **Credit** would appear as two separate transactions on a cardholder's statement. A **Sale** followed by a **Void** would result in neither transaction appearing on the cardholder's statement. The limitation of a **Void** transaction is that the transaction to be voided cannot have already been settled. Once settled, a transaction can no longer be voided.

Note: Transactions are settled at midnight by default.

XML Interface

The XML Interface transfers data securely from a merchant's host server to PSiGate's transaction server.

Development Network Requirements:

Access to: `dev.psigate.com` port 7989

Production Network Requirements:

PSiGate shall provide the Production Network Requirements to you once your application is complete.

Order Elements

All requests require the following elements:

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	The <i>PaymentType</i> element denotes the payment method. CC – Credit Card Note: Currently, only the credit card payment method is available real-time. PSiGate will add payment methods such as E-cheque and ACH in the near future.
<i>CardAction</i>	0,1,2,3,4,9	Indicates the type of transaction request you wish to perform. 0 – Sale 1 – PreAuth 2 – PostAuth 3 – Credit 4 – Forced PostAuth 9 – Void Information on these transaction types can be found under <i>PaymentType –Credit Card</i>

Note: All elements and values are case sensitive.

Sale Elements

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See Order Elements table
<i>CardAction</i>	0	0 for Sale transactions.
<i>Subtotal</i>	1.00	Amount to be authorized and processed Note: Must be greater than zero.
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number
<i>CardExpMonth</i>	07	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	09	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.

PreAuth Elements

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See Order Elements table
<i>CardAction</i>	1	1 for PreAuth transactions.
<i>Subtotal</i>	1.00	Amount to be authorized Note: Must be greater than zero.
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number.
<i>CardExpMonth</i>	07	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	09	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.

PostAuth Elements

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the PSiGate Welcome Email. Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the PSiGate Welcome Email. Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	2	2 for PostAuth transactions.
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> of the pre-authorized order to be confirmed.
<i>SubTotal</i>	1.00	<i>SubTotal</i> is not required for a PostAuth transaction. If a <i>SubTotal</i> is provided, the order shall be confirmed for the amount submitted. If a <i>SubTotal</i> is not provided, the order shall be confirmed for the amount referred in the PreAuth transaction. Note: Must be equal to or less than the amount of the original transaction and greater than or equal to zero. If a zero dollar amount is provided, the <i>SubTotal</i> will become the amount of the original transaction.

Note: Credit Card information is not needed for this transaction

Credit Elements

Tag	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	3	3 for Credit transactions
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> of the order you wish to confirm.
<i>SubTotal</i>	1.00	The order shall be credited for the amount submitted. Note: The amount given must be greater than zero and equal to or less than the amount of the balance remaining on the order. If at the end of the transaction the balance remaining is zero, the order has been cancelled.

Note: Credit Card information is not needed for this transaction

Forced PostAuth Elements

Element	Example	Description
<i>StoreID</i>	Teststore	PSiGate provides the <i>StoreID</i> within the PSiGate Welcome Email. Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>Subtotal</i>	10.00	The authorized amount.
<i>CardAction</i>	4	4 for Forced PostAuth transactions
<i>CardNumber</i>	4111111111111111	Valid Mod10 Number
<i>CardExpMonth</i>	08	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	06	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardAuthNumber</i>	102145	The <i>CardAuthNumber</i> stores the authorization number given by a financial institution during a voice authorization. Note: The value must match the value given by the financial institution or the settlement request will be rejected.

Void Elements

Element	Example	Description
<i>StoreID</i>	teststore	PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i> . Note: <i>StoreID</i> is unique and case sensitive.
<i>Passphrase</i>	Testpass	PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i> . Note: <i>Passphrase</i> is case sensitive.
<i>PaymentType</i>	CC	See <i>Order Elements</i> table
<i>CardAction</i>	9	9 for Void transactions
<i>OrderID</i>	200409191133332929	The <i>OrderID</i> references the Sale , PostAuth or Credit you wish to void.
<i>TransRefNumber</i>	07abef21992	A unique <i>TransRefNumber</i> is returned by each transaction request and references that request. Void transactions cancel the referred request.

Detailed Element List – General Order Elements

Element	Example	Length /Validation	Description
<i>StoreID</i>	teststore	25/AN	<p>PSiGate provides the <i>StoreID</i> within the <i>PSiGate Welcome Email</i>.</p> <p>Note: <i>StoreID</i> is unique and case sensitive.</p>
<i>Passphrase</i>	Testpass	32/AN	<p>PSiGate provides the <i>Passphrase</i> within the <i>PSiGate Welcome Email</i>.</p> <p>Note: <i>Passphrase</i> is case sensitive.</p>
<i>TestResult</i>	A,D,R,F	1/A	<p><i>TestResult</i> may be set to simulate a response from the bank. A simulated transaction result shall be returned once the transaction request passes the fulfillment and fraud rule checks.</p> <p>A – Simulates an approved response. D – Simulates a declined response. R – Randomly approves or declines orders. F – Simulates a fraud response.</p>
<i>OrderID</i>	PsiOrder0001	100/AN	<p>For PostAuth, Credit, and Void transactions, <i>OrderID</i> is required and its value must be the same as the <i>OrderID</i> of the associated transaction request.</p> <p>For Sale, PreAuth, and Force PostAuth transactions, the <i>OrderID</i> is not required since PSiGate will generate an <i>OrderID</i> if no <i>OrderID</i> is submitted; however if you choose to submit the <i>OrderID</i>, ensure that it is unique.</p> <p>Note: An <i>OrderID</i> submitted within an approved transaction request may not be used again however an <i>OrderID</i> submitted within a declined transaction request may be reused.</p>

Userid	jsmith	64/AN	The <i>Userid</i> is intended for the merchant. PSiGate's transaction server does not use the <i>Userid</i> . Note: You may sort based on the <i>Userid</i> within the Reports
Bname	John Smith	100/AN	Billing Name
Bcompany	PSiGate	100/AN	Billing Company
Baddress1	123 Main St	100/AN	Billing Address1
Baddress2	Suite 987	100/AN	Billing Address2
Bcity	Toronto	100/AN	Billing City
Bprovince	ON	100/AN	Billing Province/State/Region Please use ISO 3166-2 Province and State codes and FIPS 10-4 Region codes for outside Canada and US. Use of these codes will increase IP fraud checking accuracy.
Bpostalcode	L5N5V2,90120	100/AN	Billing Postal/Zip code
Bcountry	CA	50/AN	Billing Country Please use ISO 3166 Country Codes. Use of these codes will increase IP fraud checking accuracy.
Sname	John Smith	100/AN	Shipping Name
Scompany	Psigate	100/AN	Shipping Company
Saddress1	123 Main St	100/AN	Shipping Address1
Saddress2	Suite 987	100/AN	Shipping Address2
Scity	Toronto	100/AN	Shipping City
Sprovince	ON	100/AN	Shipping Province/State/Region
Spostalcode	L5N5V2,90120	100/AN	Shipping Postal/Zip code
Scountry	CA	50/AN	Shipping Country
Phone	905-555-5555	50/AN	Billing Phone
Fax	905-555-5555	50/AN	Billing Fax
Email	jsmith@domain.com	100/Email	Receipt Email Email address to receive the receipt.
Comments	None today	300/AN	Comments regarding the transaction.

<i>Tax1</i>	1.00	N	<p>Component of <i>TaxTotal</i> amount.</p> <p>The total of <i>Tax1</i> through to <i>Tax5</i> will be calculated and submitted within the <i>TaxTotal</i> element.</p>
<i>Tax2</i>	2.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax3</i>	3.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax4</i>	4.00	N	Component of <i>TaxTotal</i> amount.
<i>Tax5</i>	5.00	N	Component of <i>TaxTotal</i> amount.
<i>ShippingTotal</i>	15	N	Total shipping value
<i>SubTotal</i>	30	N	<p>Required for all transactions except PostAuth and Void.</p> <p>If items are added the value of items will override this value. The <i>SubTotal</i> must be greater than or equal to 0.</p>
<i>CustomerIP</i>	xxx.xxx.xxx.xxx	15/AN	<p>Customer's IP address.</p> <p>IP fraud checking through PSiGate's online reporting tool relies on this variable's value.</p>

Detailed Element List – Credit Card Payment

Element	Example	Length /Validation	Description
<i>PaymentType</i>	CC	25/AN	<p>The <i>PaymentType</i> element denotes the payment method.</p> <p>CC – Credit Card</p> <p>Note: Currently, only the credit card payment method is available real-time. PSiGate will add payment methods such as E-cheque and ACH in the near future.</p>
<i>CardAction</i>	0,1,2,3,4,9	1/N	<p>Indicates the type of transaction request you wish to perform.</p> <p>0 – Sale 1 – PreAuth 2 – PostAuth 3 – Credit 4 – Forced PostAuth 9 – Void</p> <p>Information on these transaction types can be found under <i>PaymentType –Credit Card</i></p>
<i>CardNumber</i>	4111111111111111	N	Credit Card Number
<i>CardExpMonth</i>	05	2-Digit Numeric	Credit Card Expiry Month
<i>CardExpYear</i>	09	2-Digit Numeric	Credit Card Expiry Year
<i>CardAuthNumber</i>	182819	N	<p>The <i>CardAuthNumber</i> stores the authorization number given by a financial institution during a voice authorization.</p> <p>Note: The value must match the value given by the financial institution or the settlement request will be rejected.</p>

<i>TransRefNumber</i>	0124ae4	18/AN	A unique <i>TransRefNumber</i> is returned by each transaction request. The <i>TransRefNumber</i> references transaction requests. Void transactions cancel the referred request.
<i>CardIDCode</i>	0,1,2,9	1/Numeric	Passes the status for Visa CVV2, MasterCard CVC2, and Amex CID. If unknown leave blank. 0 = Bypassed 1 = Value present 2 = Value illegible 9 = Card has no CVV2 value
<i>CardIDNumber</i>	111, 9999	3-4 Digit Numeric	Passes Visa CVV2, MasterCard CVC2, and Amex CID numbers
<i>CardXid</i>	28281917e2191839183 719128829	28/AN	Passes Visa Secure 3D and Mastercard UCAF fields. Note: The length of the value returned by <i>CardXID</i> shall always be 28 characters.
<i>CardECI</i>	7	N	Passes Visa Secure 3D and Mastercard UCAF fields.
<i>CardCavv</i>	28281917e2191839183 371928829	28/AN	Passes Visa Secure 3D and Mastercard UCAF fields. Note: The length of the value returned by <i>CardCavv</i> shall always be 28 characters.
<i>CardLevel2ComCardType</i>	B, C, P	1/A	Passes the commercial card type. If unknown, leave blank. B = Business C = Corporate P = Purchasing
<i>CardLevel2PO</i>	Order 18	25/AN	Purchase order information displayed on the customer's credit card statement if it supports Purchase Level 2 data.

<i>CardLevel2Tax</i>	15.00	N	Tax amount displayed on the customer's credit card statement if it supports Purchase Level 2 data.
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Detailed Element List – Item Elements

Item Element	Example	Length /Validation	Description
<i>ItemID</i>	PSI-BOOK	50/AN	Merchant reference to the item. Typically, a product or item code.
<i>ItemDescription</i>	PsiGate User Manual	200/AN	Description of the product, item or service.
<i>ItemQty</i>	1	N	Quantity of this item being purchased
<i>ItemPrice</i>	10.00	N	The Unit Cost of the Item
<i>Option</i>	Please see <i>Option Elements</i>	Please see Option Elements	Please see <i>Option Elements</i>
<p>Note: The individual item totals (<i>ItemQty</i> multiplied by <i>ItemPrice</i>) and the item subtotal (sum of item totals) will be calculated, if you add items to an order. The calculated item subtotal will replace the value given in the <i>SubTotal</i> element. Each item total can be less than zero, but the item subtotal must be greater than or equal to zero.</p>			

Detailed Element List – Option Elements

Option Element	Example	Length /Validation	Description
<UserDefined>	<Type>HardCover</Type>	50/AN	Additional Item Information.
<p>Option elements allow the creation of additional item descriptions that you might require. Options are defined within an Item context. See <i>Adding Option Detail</i></p>			

Result Elements

Result Element	Example	Length /Validation	Description
<i>TransTime</i>	Mon Nov 08 20:21:06 PST 2004	50/AN	Time stamp of the transaction request.
<i>OrderID</i>	Order1	100/AN	<i>OrderID</i> of the transaction. Either an echo of the user's input or a system generated value.
<i>Approved</i>	APPROVED	50/AN	<p>There are three possible values:</p> <p>APPROVED - The transaction request has been approved.</p> <p>DECLINED - The transaction request was accepted as a valid request and was declined by the card issuing bank.</p> <p>Note: Check the Return Code and ErrMsg for details.</p> <p>ERROR - The transaction request encountered an error.</p> <p>Note: Check the Return Code and ErrMsg for details.</p>

<i>ReturnCode</i>	Y:123221:431319003178:M:N:YYY	50/AN	<p>Summary of result codes returned from the transaction request. The first character indicates whether the transaction was approved or declined.</p> <p>A “Y” signifies the transaction request was approved. Any other value indicates the transaction request was declined.</p> <p>The <i>ReturnCode</i> is returned in any one of the following formats:</p> <p>N:ERROR – An error has occurred and the request could not be completed. See <i>ErrMsg</i> for details</p> <p>N:FRAUD – The transaction request activated a fraud condition. See <i>ErrMsg</i> for details.</p> <p>If the <i>PaymentType</i> is “CC”, the following formats are also possible:</p> <p>N:Bank Error Code/Decline MSG.</p> <p>Y:CardAuthNumber:CardRefNumber:CardIDResult:AVSResult:IPResult</p>
<i>ErrMsg</i>	PSI-3000:TESTFRAUD.	150/AN	<p>Error Message detail. Populated if the <i>ReturnCode</i> is “N:ERROR” or “N:FRAUD”. The format is <i>ERRORCODE:ERRORTTEXT</i>. Where ERRORCODE is the system assigned error code and ERRORTTEXT is a text summary that describes the ERRORCODE.</p>

<i>TaxTotal</i>	5.00	N	Calculated Tax Total. Sum of the five tax elements.
<i>ShipTotal</i>	15.00	N	The echo of the submitted <i>ShippingTotal</i> value
<i>SubTotal</i>	55.00	N	Either an echo of the submitted <i>SubTotal</i> value or the calculated item subtotal if item information is passed. In some cases, such as when processing a Void transaction, <i>SubTotal</i> will be the value of the referenced transaction.
<i>FullTotal</i>	75.00	N	The sum of the <i>TaxTotal</i> , <i>ShipTotal</i> , and <i>SubTotal</i> elements.
<i>PaymentType</i>	CC	25/AN	The <i>PaymentType</i> element denotes the payment method. CC – Credit Card Note: Currently, only the credit card payment method is available real-time. PSiGate will add payment methods such as E-checke and ACH in the near future.

Result Elements – Payment Type: Credit Card

Result Element – Credit Card	Example	Length /Validation	Description
<i>CardNumber</i>1111	25/AN	Abbreviated card number used within a transaction.
<i>CardExpMonth</i>	05	2/N	Two-digit Card Expiration Month. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>CardExpYear</i>	09	2/N	Two-digit Card Expiration Year. Note: PSiGate shall recognize only the first two digits if more than two digits are given.
<i>TransRefNumber</i>	0124ae4	18/AN	A unique <i>TransRefNumber</i> is generated and returned by each transaction request when the transaction request contains the minimum required elements as outlined in Order Elements and the values are valid.
<i>CardIDResult</i>	M	25/AN	M – Match N – No match P – Not processed S – Not passed U – Issuer does not support CardID verification Blank – Not passed or not processed.
<i>AVSResult</i>	X	25/AN	X- Exact match, 9-digit zip Y- Exact match, 5-digit zip A – Address match W – 9-digit zip match only Z – 5-digit zip match only N – No address or zip match U – Address unavailable R – Card Issuer system

			<p>unavailable E – Not a MOTO order S – Service not supported Blank – Not processed</p> <p>Note: For AVS to function, the numeric street address must be entered into <i>Baddress1</i> and the zip/postal code must be entered into <i>Bpostalcode</i>.</p>
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<i>CardAuthNumber</i>	123456	N	Card authorization number from the financial institution that issued the card.
<i>CardRefNumber</i>	177e541278a	AN/25	Transaction reference number assigned by the bank processor. Note: For reference only, <i>CardRefNumber</i> is not used in PSiGate's application but can be used to during reconciliation.
<i>CardType</i>	VISA	AN/10	Credit card type
<i>IPResult</i>	YYY	AN/3	The IP fraud result. First Character – Country match Second Character – Region match Third Character – City match Y - Match N - No match
<i>IPCountry</i>	CA	AN/2	Country of the submitted IP address. UN – IP address unknown or unable to determine
<i>IPRegion</i>	Mississauga	AN/50	Region, state or province of the submitted IP address. UN – IP address unknown or unable to determine
<i>IPCity</i>	Toronto	AN/50	City of the submitted IP address. UN – IP address unknown or unable to determine

Changes from version 1.03

Deleted the note that referred to the cancellation of a PreAuth.

Note: To cancel a **PreAuth**, issue a **PostAuth** transaction with a *FullTotal* value of “0.00”. PSiGate will prevent further modification of the order and attempt to release the existing reservation of funds held on the cardholder’s account depending on the policies of your processor or your customer’s card issuer.

Clarified second sentence of the **Void** subheading.

Simplified the *TransRefNumber* description.

Removed a note within the *CustomerIP* description that referred to the **Reports’** ability to block IP addresses.

Changed the word “shall” to “will” within the future payment methods note in the *PaymentType* description.

Changes from version 1.04

Updated Table of Contents fields so that the Bookmarks are all valid.

Included Testing Account Information.

Changes from version 1.055

Changed the wording of where test transactions are to be sent.

Changed the test password to “psigate1234”

Changes from version 1.06

A note was included to enter the street address and zipcode of the customer within *Baddress1* and *Bpostalcode* to allow the AVS response to function properly.

Changes from version 1.07

Fraud checking detail was added.

Changes from version 1.08

Coupon detail was added.

Added a note that the ampersand symbol (“&”) is an invalid character.