

**TECHNICAL
DOCUMENTATION**



XML INTERNET PAYMENT GATEWAY Version 4.8

Application Programming Interface

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TABLE OF CONTENTS

INTENDED USE	3
INTEGRATION CONSIDERATIONS	3
USE OF INTERNET STANDARDS	4
INPUT PARAMETERS	5
CONNECTION URL	5
PARAMETER LIST	5
XML FORMATTED DATA	7
RESPONSE PARAMETERS	10
PARAMETER LIST	10
NAME-VALUE PAIRS	11
XML FORMATTED DATA	12
INTEGRATION INSTRUCTIONS	13
STEP ONE – COLLECT THE INPUT DATA	13
STEP TWO – CONNECTION URL	13
STEP THREE – SEND THE DATA	14
STEP FOUR – RECEIVE THE RESPONSE DATA	15
STEP FIVE – PROCESSING THE RESPONSE DATA	18
TESTING CONSIDERATIONS	19
APPENDIX A - ERROR CODES	20
APPENDIX B - ISO 3166 STANDARD COUNTRY CODES	21
APPENDIX C - ISO 4217 STANDARD CURRENCY CODES	26

INTENDED USE

This document is intended as an informational guide for BluePay partners and clients when interfacing with the BluePay Internet Payment Gateway. The primary purpose is to present technical specifications and input/output parameters to be used when communicating with the gateway.

This document is not intended to recommend a single integration strategy, development language or API platform. BluePay recognizes that there are many Internet technologies, platforms and operating environments in use today. It is up to the client to determine the most appropriate integration method for a particular application. If additional assistance is required, please contact BluePay Support by e-mail at support@bluepay.com, or by phone at 1-866-739-8324.

INTEGRATION CONSIDERATIONS

As a user of BluePay's Internet Payment Gateway, you are able to securely send payment information from a local server or workstation to BluePay over an Internet connection. This information may be sent over any secure SSL Internet connection.

Depending upon the configuration of your account, the gateway may perform validation rules, payment authorization and order notification services. The results of these operations are returned to the local server or workstation for processing.

Data must be sent to the BluePay servers by performing a secure HTTPS Post operation. The data posted to BluePay will be formatted using xml.

Data is returned to the local server in a formatted response or by use of a post operation to a local processing script. The data returned by BluePay will be formatted using xml.

A DTD (Document Type Definition) is available for payment gateway requests and responses using the XML format. A DTD is used to validate the format and integrity of the XML data prior to being processed by the payment gateway.

USE OF INTERNET STANDARDS

BluePay processing systems conform to a number of industry standards for security, privacy and data exchange. The list below identifies the major standards in use by BluePay:

SSL – Secure Socket Layers (SSL) is the universally accepted protocol for authenticated and encrypted communication between World Wide Web clients and servers. For more information, see the following URL:

<http://wp.netscape.com/eng/ssl3>

HTTP - The Hypertext Transfer Protocol (HTTP) is an application-level protocol for distributed, collaborative, hypermedia information systems. A feature of HTTP is the typing and negotiation of data representation, allowing systems to be built independently of the data being transferred. For more information, see the following URL:

<http://www.w3.org/Protocols/rfc2616/rfc2616.html>

CGI - The Common Gateway Interface (CGI) is a standard for interfacing external applications with information servers, such as HTTP or Web servers. For more information, see the following URL:

<http://www.w3.org/CGI>

XML - The Extensible Markup Language (XML) is the universal format for structured documents and data on the Web. The base specifications are XML 1.0, W3C Recommendations February, 1998. For more information, see the following URL:

<http://www.w3.org/XML>

P3P - The Platform for Privacy Preferences Project (P3P), developed by the World Wide Web Consortium, is emerging as an industry standard providing a simple, automated way for users to gain more control over the use of personal information on Web sites they visit. For more information, see the following URL:

<http://www.w3.org/P3P>

INPUT PARAMETERS

Connection URL

Input parameters are posted to the BluePay servers using xml formatted data. All data must be submitted using an SSL encrypted secure HTTPS post to the BluePay servers, located at the following URL:

https://secure.bluepay.com/ics_gateway.exe

The http headers will also need to be set with the following header:

Content-type: text/xml

Parameter List

The following table lists all of the input parameters which may be sent to the BluePay XML Internet Payment Gateway.

Parameter	Data Type	Max Length	Required	Description
REQUEST HEADER PARAMETERS				
Ecom_UserID	Text	5	Yes	This parameter must contain the BluePay-assigned account ID for this gateway client.
Ecom_Password	Text	32	Yes	This parameter must contain the BluePay-assigned secret key.
Ecom_Mode	Text	1	Yes	This parameter must contain the desired operation mode of the payment gateway for the current transaction. Valid values include: P = Production/Live Mode T = Test/Development Mode NOTE: There is no default value for this parameter. A valid value must be received or an error will be generated.
Ecom_ResponseType	Text	1	Yes	This parameter determines the type of response generated by the BluePay server and how that response is handled. Valid values include: 1 = Name-value pair response only 2 = XML-formatted response only
Ecom_GatewayVersion	Text	5	Yes	This parameter determines the version number of the gateway application used to generate the response. Current version is '4.8'.
ORDER PARAMETERS				
Ecom_Order_SellerOrderID	Text	30	Optional	A unique order identifier as assigned by the seller.
Ecom_Order_CustomerID	Text	16	Optional	Merchant defined Custom ID value.
Ecom_Order_Source	Text	64	Optional	Merchant defined Customer ID 2 value.
Ecom_Order_IPAddress	Text	30	Conditional	This parameter should contain the IP address of the customer placing this order. This parameter is required when the Ecom_Order_Source parameter is set to OL .
ORDER BILLTO PARAMETERS				
Ecom_BillTo_Postal_Name_First	Text	15	Optional	The first name of the individual associated with the BillTo postal address.
Ecom_BillTo_Postal_Name_Last	Text	30	Optional	The last name of the individual associated with the BillTo postal address.
Ecom_BillTo_Postal_Name_Company	Text	30	Optional	The company name associated with the BillTo postal address.
Ecom_BillTo_Postal_Street_Line1	Text	30	Conditional	The first line of street address information associated with the BillTo postal address. Required when using address verification service (AVS).
Ecom_BillTo_Postal_City	Text	30	Optional	The city associated with the BillTo postal address.
Ecom_BillTo_Postal_StateProv	Text	30	Optional	The state/province associated with the BillTo postal address.
Ecom_BillTo_Postal_PostalCode	Text	14	Conditional	The postal code associated with the BillTo postal address. Required when using address verification service (AVS).

BluePay – XML Internet Payment Gateway

Ecom_BillTo_Postal_CountryCode	Text	2	Conditional	The country code associated with the BillTo postal address. Valid values must match the ISO 3166 standard two-letter codes for country names. Required when using address verification service (AVS).
Ecom_BillTo_Telecom_DayPhone	Text	20	Optional	The daytime phone number associated with the BillTo entity.
Ecom_BillTo_Telecom_EvePhone	Text	20	Optional	The evening phone number associated with the BillTo entity.
Ecom_BillTo_Online_Email	Text	60	Optional	The e-mail address associated with the BillTo entity.
ORDER COST PARAMETERS				
Ecom_Order_Cost_Tax	Number	12	Optional	The tax amount charged for the order.
Ecom_Order_Cost_Total	Number	12	Conditional	The total payment associated with the current order. The default value is 0.00 . This parameter may be required depending on the payment gateway configuration and when BluePay is not automatically calculating the order total.
Ecom_Order_Cost_AmountPaid	Number	12	Optional	The total amount paid by the purchaser on this transaction. This is the amount actually billed to the purchaser. The default is the value found in the Ecom_Order_Cost_Total parameter. This value cannot be larger than the value found in the Ecom_Order_Cost_Total parameter.
ORDER PAYMENT PARAMETERS				
Ecom_Payment_Action	Text	1	Yes	This parameter holds the action to be performed for the current transaction. Valid values include: A = Authorization E = Execute/Settle Transaction S = Sale C = Refund R = Reversal (Not Supported By All Processors) V = Void X = Chargeback F = Force Sale
Ecom_Payment_Type	Text	2	Yes	This parameter identifies the type of payment associated with the current transaction. Valid values include: AM = American Express CB = Carte Blanche CK = Check DC = Diners Club DI = Discover FT = Funds Transfer/ACH JC = JCB Card MC = MasterCard VI = Visa
Ecom_Payment_Number	Text	20	Conditional	This parameter holds the number associated with the current payment type. This parameter is required when the Ecom_Payment_Type parameter contains one of the following values: AM, CB, CK, DC, DI, FT, JC, MC, VI.
Ecom_Payment_Verification	Text	4	Optional	This parameter contains an additional payment verification number, such as the American Express CID number, the MasterCard CVC2 number or the Visa CVV2 number. (This number is usually not embossed or recorded on the magnetic stripe of a credit card.)
Ecom_Payment_ExpDate_Month	Number	2	Conditional	The month portion of the payment expiration date. Valid values are 1 – 12 . This parameter is required when the Ecom_Payment_Type parameter contains one of the following values: AM, CB, DC, DI, JC, MC, VI.
Ecom_Payment_ExpDate_Year	Number	4	Conditional	The year portion of the payment expiration date. Valid values are 0001 – 9999 (always 4 digits). This parameter is required when the Ecom_Payment_Type parameter contains one of the following values: AM, CB, DC, DI, JC, MC, VI.
Ecom_Payment_BankCode	Text	9	Conditional	The bank ABA or SWIFT code used to identify the purchaser's bank. This value is required when the Ecom_Payment_Type is FT .
Ecom_Payment_ACH_AccountIndicator	Text	1	Conditional	The bank account indicator value for the current transaction. This value is required when using the BluePay ACH payment service and the Ecom_Payment_Type is FT . Valid values are: C = Checking Account S = Savings Account
Ecom_Payment_ACH_AccountType	Text	1	Conditional	The bank account type associated with the current transaction. This value is required when using the BluePay ACH payment service and the Ecom_Payment_Type is FT . Valid values are: B = Business Account P = Personal Account

Ecom_Payment_OriginalTransaction	Number	12	Conditional	This parameter contains the transaction number from Ecom_Order_Reference on the original transaction to be associated with the current transaction. This parameter is required when the Ecom_Payment_Action parameter contains one of the following values: E, R, V, F .
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Table 1

XML Formatted Data

XML formatted data is posted to the BluePay servers using a standard CGI “post” operation using a secure “https” (SSL encrypted) connection. However, using XML, the data must be structured and transmitted in an XML style data stream.

XML uses a hierarchical, or tree, structure for the XML data elements. Each element consists of a start tag and an end tag, between which the parameter data is contained. The only exception to the above rule are the USERID and PASSWORD parameters, which are actually sent as attributes of the top-level start tag.

XML data can be automatically parsed, using a standard XML parser, and be placed into variables inside the receiving application.

The following diagram shows the hierarchy of the XML structure for the input parameters listed in Table 1, above:

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMREQUEST SYSTEM
  "http://xml.bluepay.com/AB/assurebuy_ecomrequest_48.dtd">
<ASSUREBUY.ECOMREQUEST
  USERID="xxxxx"
  PASSWORD="xxxxxxxxxxxxxxxxxxxxx">
  <Mode></Mode>
  <GatewayVersion></GatewayVersion>
  <ResponseType></ResponseType>

  <Order>
    <SellerOrderID></SellerOrderID>
    <CustomerID></CustomerID>
    <Source></Source>
    <IPAddress></IPAddress>

    <BillTo>
      <Postal>
        <Name>
          <First></First>
          <Last></Last>
          <Company></Company>
        </Name>
        <Street>
          <Line1></Line1>
        </Street>
        <City></City>
        <StateProv></StateProv>
```



```
                <PostalCode></PostalCode>
                <CountryCode></CountryCode>
            </Postal>
            <Telecom>
                <DayPhone></DayPhone>
                <EvePhone></EvePhone>
            </Telecom>
            <Online>
                <Email></Email>
            </Online>
        </BillTo>

        <Cost>
            <SubTotal></SubTotal>
            <Tax></Tax>
            <Total></Total>
            <AmountPaid></AmountPaid>
        </Cost>

        <Payment>
            <Action></Action>
            <Type></Type>
            <Number></Number>
            <Verification></Verification>
            <ExpDate>
                <Month></Month>
                <Year></Year>
            </ExpDate>
            <BankCode></BankCode>
            <ACH>
                <AccountIndicator></AccountIndicator>
                <AccountType></AccountType>
            </ACH>
            <OriginalTransaction></OriginalTransaction>
        </Payment>

    </Order>
</ASSUREBUY.ECOMREQUEST>
```

For example, the following table shows a series of parameters:

Parameter Name	Value
Ecom_UserID	12345
Ecom_Password	45#qd78@4v
Ecom_Mode	P
Ecom_Order_SellerOrderID	18271
etc...	

Table 2

Along with the XML formatted data, you will need to send an XML header tag and document type tag containing version information, encoding attributes and DTD information. These tags do not need to be closed at the end of the XML data stream. The following XML header tag should be used:

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMREQUEST SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomrequest_48.dtd">
```

Using XML formatted data, the above header and input parameters would be posted to the BluePay servers in the following format:

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMREQUEST SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomrequest_48.dtd">
<ASSUREBUY.ECOMREQUEST USERID="12345" PASSWORD="45#qd78@4v">
    <Mode>P</Mode>
    <GatewayVersion>4.8</GatewayVersion>
    ...
    <Order>
        <SellerOrderID>18271</SellerOrderID>
        ...
    </Order>
</ASSUREBUY.ECOMREQUEST>
```

SPECIAL NOTES FOR XML FORMATTED DATA:

1. The above example is not a complete sample. The remaining parameters would also need to be sent using the same format.
2. XML formatted data does not need to be URL-encoded. However, certain special characters need to be properly formatted in order for the XML parsing engine to properly understand the XML formatting. These special characters are listed in the following table.

Special Character	ASCII Value	Formatted XML Value
<	60	<
>	62	>
&	38	&
'	39	'
"	34	"

Table 3

RESPONSE PARAMETERS

To use the BluePay XML Internet Payment Gateway, you are required to submit the input parameters to the BluePay server. Upon completion of the payment authorization process, a series of response information will be returned to the remote server from which the authorization was initiated. Depending upon the setting of the **Ecom_ResponseType** input parameter, the returned data may be formatted in either name-value pairs or XML-formatted data. When posting the response to a remote processing script, the data will be posted using a standard CGI “post” operation with a secure “https” (SSL Encrypted) connection.

The following table shows the action associated with each setting of the **Ecom_ResponseType** parameter:

Ecom_ResponseType Setting	Data returned to calling server using name-value pairs.	Data returned to calling server using XML-formatted data.
1	YES	NO
2	NO	YES

Table 4

Parameter List

The following table lists all of the response parameters which may be returned by the BluePay XML Internet Payment Gateway. Values returned depend upon the setting of the **Ecom_ResponseType** input parameter (see Table 5, above) and upon the configuration of your BluePay account. Please contact your account representative if you have questions about which output parameters apply to your account.

Parameter	Data Type	Max Length	Required	Description
RESPONSE HEADER PARAMETERS				
Ecom_Mode	Text	1	Yes	This parameter returns the mode in which this transaction was processed. Valid values include: P = Production/Live mode T = Test/Development mode
Ecom_GatewayVersion	Text	5	Yes	This parameter returns the version number of the gateway application used to generate the response. Current version is '4.8'.
Ecom_ReturnCode	Number	4	Yes	This parameter contains the return code identifying the type of response returned from the BluePay servers. Valid values range from 0000 to 9999 . If the BluePay server has successfully processed the requested transaction, this value will be set to 0000 . Any value other than 0000 , indicates that an error has occurred. See the section on Error Responses for more information.
Ecom_SessionID	Text	16	Yes	This parameter contains the unique session identifier for the current gateway request.
ORDER PARAMETERS				
Ecom_Order_SellerOrderID	Text	30	Optional	This parameter contains the unique order identifier as assigned by the seller and as passed to the BluePay server with the original request.
Ecom_Order_Reference	Number	12	Yes	This parameter contains the 12-digit unique order reference number as assigned by BluePay.
Ecom_Order_Date	Date	15	Yes	Contains the order date for the current order in the format MMDDYYYY HHMMSS . If no value was passed as part of the request, then this parameter will be assigned by BluePay.

ORDER TRANSACTION PARAMETERS				
Ecom_Trans_Result	Text	1	Yes	This parameter contains the result of the requested payment action. Valid values include: Y = Approved N = Declined
Ecom_Trans_AlternateResult	Text	120	Optional	This parameter may optionally contain a seller specific custom configured alternate result code based on the current transaction result.
Ecom_Trans_Number	Number	10	Yes	This parameter contains a unique 10-digit transaction number as assigned by BluePay.
Ecom_Trans_Action	Text	1	Yes	This parameter returns the requested action to be performed for the current transaction. Valid values include: A = Authorization S = Sale R = Refund X = Chargeback
Ecom_Trans_AuthDate	Date	15	Yes	This parameter contains the date the payment authorization was obtained in the format MMDDYYYY HHMMSS .
Ecom_Trans_AuthCode	Text	20	Conditional	This parameter contains the actual authorization code as returned by the payment processing network.
Ecom_Trans_CVVResponse	Text	4	Conditional	This parameter contains the result of the CVV2 validation as returned by the processor. Parameter values are determined by the processor.
Ecom_Trans_PaymentAccount	Text	32	Conditional	This parameter returns the masked payment account associated with the current transaction.
Ecom_Trans_ExpDate_Month	Number	2	Conditional	This parameter returns the month portion of the payment expiration date in the format MM .
Ecom_Trans_ExpDate_Year	Number	4	Conditional	This parameter returns the year portion of the payment expiration date in the format YYYY .
Ecom_Trans_PaymentType	Text	2	Conditional	This parameter returns the type of payment associated with the current transaction. Valid values include: AM = American Express DC = Diners Club DI = Discover FT = Funds Transfer/ACH/Check JC = JCB Card MC = MasterCard VI = Visa UN = Unknown
Ecom_Trans_AccountUpdateId	Number	12	Conditional	This parameter returns the ID of any updated account data for the payment account associated with the current transaction. Updated account data only provided for merchants using Account Updater.

Table 5

Name-Value Pairs

If the value of the **Ecom_ResponseType** parameter is set to **1**, then the returned data will be a single stream of parameters and URL-encoded parameter data in the following format:

parametername=parameterdata¶metername2=parameterdata2&...

See the Integration Instructions below for more information about how data is returned in this format.

XML Formatted Data

If the value of the **Ecom_ResponseType** parameter is set to **2**, then the response will be returned as XML-formatted data using the following data scheme:

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMRESPONSE SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomresponse_48.dtd">
<ASSUREBUY.ECOMRESPONSE
    USERID="xxxxxxxxxxxxxxxxxxxxx"
    PASSWORD="xxxxxxxxxxxxxxxxxxxxx">
    *<GatewayVersion></GatewayVersion>
    *<Mode></Mode>
    <Order>
        <Cost>
            *<SubTotal></SubTotal>
            *<Tax></Tax>
            *<Total></Total>
        </Cost>
        *<Date></Date>
        *<Reference></Reference>
        *<SellerOrderID></SellerOrderID>
        <Transaction>
            <AVS>
                *<Address></Address>
                *<Zip></Zip>
            </AVS>
            *<AccountUpdateId></AccountUpdateId>
            *<Action></Action>
            *<AlternateResult></AlternateResult>
            *<AuthCode></AuthCode>
            *<AuthDate></AuthDate>
            *<CVVResponse></CVVResponse>
            <ExpDate>
                *<Month></Month>
                *<Year></Year>
            </ExpDate>
            <Fraud>
                *<Flag></Flag>
            </Fraud>
            *<Number></Number>
            *<PaymentAccount></PaymentAccount>
            *<PaymentType></PaymentType>
            *<Result></Result>
        </Transaction>
    </Order>
    *<ReturnCode></ReturnCode>
    *<SessionID></SessionID>
</ASSUREBUY.ECOMRESPONSE>
```

See the Integration Instructions below for more information about how data is returned in this format.

INTEGRATION INSTRUCTIONS

What follows are step-by-step instructions on how to integrate the BluePay Internet Payment Gateway into an e-commerce enabled web site. The examples shown in this section include only the minimum requirements for using the payment gateway. Depending upon the specific configuration of your account, other input parameters may be required and more robust functionality may be accessible.

Step One – Collect the Input Data

Certain information is required by the BluePay Internet Payment Gateway in order for the gateway to properly process a transaction request. Some of the input parameters contain fixed values that must be stored inside your application and sent with each transaction request. Other parameters, such as customer and order information, are collected by the application or web site in real-time and then sent to the BluePay servers. It is the responsibility of the sending application to edit check the data to make sure it meets the enclosed specifications before sending it on to BluePay. Failure to provide this error checking may result in gateway errors and will prevent the transaction from being processed. For more information on input parameter specifications, see the section on Input Parameters, above.

The following table provides an example of what a basic credit card transaction might look like:

Parameter	Sample Data	Source
Ecom_ UserID	12345	Fixed
Ecom_ Password	45#qd78@4v	Fixed
Ecom_ Mode	P	Fixed
Ecom_ GatewayVersion	4.8	Fixed
Ecom_ ResponseType	1	Fixed
Ecom_ Order_ SellerOrderID	18271	Dynamic
Ecom_ Order_ IPAddress	195.57.123.91	Dynamic
Ecom_ BillTo_ Postal_ Name_ First	Frank	Dynamic
Ecom_ BillTo_ Postal_ Name_ Last	Larson	Dynamic
Ecom_ BillTo_ Postal_ Street_ Line1	407 Portsmouth Blvd	Dynamic
Ecom_ BillTo_ Postal_ PostalCode	90027	Dynamic
Ecom_ Order_ Cost_ Total	98.50	Dynamic
Ecom_ Order_ Cost_ AmountPaid	98.50	Dynamic
Ecom_ Payment_ Action	A	Dynamic
Ecom_ Payment_ Type	VI	Dynamic
Ecom_ Payment_ Number	XXXXXXXXXXXXXXXXXX	Dynamic
Ecom_ Payment_ ExpDate_ Month	02	Dynamic
Ecom_ Payment_ ExpDate_ Year	2003	Dynamic

Table 6 - This data is for example purposes only and will not work with the actual BluePay Internet Payment Gateway.

NOTE: All payment data collected on a remote server must use secure channel encryption, such as SSL.

Step Two – Connection URL

To use the BluePay Internet Payment Gateway, the formatted data will need to be securely posted (using SSL encryption) to the following URL:

Post to URL: **https://secure.bluepay.com/ics_gateway.exe**
Use http header: **Content-type: text/xml**

Step Three – Send the Data

Connect to the BluePay server by posting the properly formatted data. The following example shows how the data might look.

Example 1 - Posting XML-Formatted Data

```
POST /ics_gateway.exe HTTP/1.0<crlf>
Content-type: text/xml<crlf>
Content-length: 874<crlf>
<crlf>
<?xml version="1.0"?>
<!DOCTYPE ASSUREBUY.ECOMREQUEST SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomrequest_48.dtd">
<ASSUREBUY.ECOMREQUEST USERID="12345" PASSWORD="45#qd78@4v">
  <Mode>P</Mode>
  <GatewayVersion>4.8</GatewayVersion>
  <ResponseType>2</ResponseType>
  <Order>
    <SellerOrderID>18271</SellerOrderID>
    <IPAddress>195.57.123.91</IPAddress>
    <BillTo>
      <Postal>
        <Name>
          <First>Frank</First>
          <Last>Larson</Last>
        </Name>
        <Street>
          <Line1>407 Portsmouth Blvd</Line1>
        </Street>
        <PostalCode>90027</PostalCode>
      </Postal>
    </BillTo>
    <Cost>
      <Total>98.50</Total>
      <AmountPaid>98.50</AmountPaid>
    </Cost>
    <Payment>
      <Action>A</Action>
      <Type>VI</Type>
      <Number>XXXXXXXXXXXXXXXXXX</Number>
      <ExpDate>
        <Month>02</Month>
        <Year>2003</Year>
      </ExpDate>
    </Payment>
  </Order>
</ASSUREBUY.ECOMREQUEST>
```

NOTE: The XML data has been formatted for readability purposes. The indentations are not required when posting the actual data to the BluePay servers.

Step Four – Receive the Response Data

Depending on the value of the **Ecom_ResponseType** input parameter, the response may be formatted as either name-value pairs or as XML formatted data.

The following table provides an example of the data that might be returned for a typical transaction.

Parameter	Approved Transaction	Error Response
Ecom_Mode	P	P
Ecom_GatewayVersion	4.8	4.8
Ecom_ReturnCode	0000	5611
Ecom_SessionID	03307082236181	03307082236181
Ecom_Order_SellerOrderID	18271	18271
Ecom_Order_Reference	1234500021845	1234500021845
Ecom_Order_Date	20170612 112542	20170612 112542
Ecom_Trans_PaymentAccount	xxxxxxxxxxxx1111	xxxxxxxxxxxx1111
Ecom_Trans_ExpDate_Month	02	02
Ecom_Trans_ExpDate_Year	2025	2003
Ecom_Trans_PaymentType	VI	VI
Ecom_Trans_AccountUpdateId	123456789012	
Ecom_Trans_Result	Y	
Ecom_Trans_AlternateResult		
Ecom_Trans_Number	1590239462	
Ecom_Trans_Action	A	
Ecom_Trans_AuthDate	20170612 112542	
Ecom_Trans_AuthCode	181706	
Ecom_Trans_AVS_Address	Y	
Ecom_Trans_AVS_Zip	Y	
Ecom_Trans_CVVResponse	M	
Ecom_Trans_Fraud_Flag	N	
Ecom_Order_Cost_SubTotal		
Ecom_Order_Cost_Tax		
Ecom_Order_Cost_Total	98.50	
Ecom_Error_Code		5611
Ecom_Error_Description		Card Expired

Table 7

The following examples show how the response would be returned for each of the data formats.

Example 2 – Name-Value Pair Response (Approved Transaction)

```
Ecom_UserID=&Ecom_Password=&Ecom_Mode=P&Ecom_GatewayVersion=4.8&Ecom_ReturnCode=0000&Ecom_SessionID=03307082236181&Ecom_Order_SellerOrderID=18271&Ecom_Order_Reference=1234500021845&Ecom_Order_Date=20170613%20110006&Ecom_Trans_PaymentAccount=xxxxxxxxxxx1111&Ecom_Trans_ExpDate_Month=02&Ecom_Trans_ExpDate_Year=2025&Ecom_Trans_PaymentType=VI&Ecom_Trans_AccountUpdateId=123456789012&Ecom_Trans_Result=Y&Ecom_Trans_AlternateResult=&Ecom_Trans_Number=1590239462&Ecom_Trans_Action=A&Ecom_Trans_AuthDate=20170613%20110006&Ecom_Trans_AuthCode=181706&Ecom_Trans_AVS_Address=Y&Ecom_Trans_AVS_Zip=Y&Ecom_Trans_CVVRResponse=M&Ecom_Trans_Fraud_Flag=N&Ecom_Order_Cost_Tax=&Ecom_Order_Cost_SubTotal=&Ecom_Order_Cost_Total=98.50
```

Example 3 – XML Formatted Response (Approved Transaction)

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMRESPONSE SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomresponse_48.dtd">
<ASSUREBUY.ECOMRESPONSE>
  <GatewayVersion>4.8</GatewayVersion>
  <Mode>P</Mode>
  <Order>
    <Cost>
      <SubTotal></SubTotal>
      <Tax></Tax>
      <Total>98.50</Total>
    </Cost>
    <Date>20170612 131929</Date>
    <Reference>1234500021845</Reference>
    <SellerOrderID>18271</SellerOrderID>
    <Transaction>
      <AVS>
        <Address>Y</Address>
        <Zip>Y</Zip>
      </AVS>
      <AccountUpdateId>123456789012</AccountUpdateId>
      <Action>A</Action>
      <AlternateResult></AlternateResult>
      <AuthCode>181706</AuthCode>
      <AuthDate>20170612 131929</AuthDate>
      <CVVRResponse>M</CVVRResponse>
      <ExpDate>
        <Month>02</Month>
        <Year>2025</Year>
      </ExpDate>
      <Fraud>
        <Flag>N</Flag>
      </Fraud>
      <Number>1590239462</Number>
      <PaymentAccount>xxxxxxxxxxx1111</PaymentAccount>
      <PaymentType>VI</PaymentType>
      <Result>Y</Result>
    </Transaction>
  </Order>
  <ReturnCode>0000</ReturnCode>
  <SessionID>03307082236181</SessionID>
</ASSUREBUY.ECOMRESPONSE>
```

Example 4 – Name-Value Pair Response (Error Transaction)

```
Ecom_UserID=&Ecom_Password=&Ecom_Mode=P&Ecom_GatewayVersion=4.8&Ecom_ReturnCode=5611&Ecom_SessionID=03307082236181&Ecom_Order_SellerOrderID=18271&Ecom_Order_Reference=1234500021845&Ecom_Order_Date=20170613%20112854&Ecom_Trans_PaymentAccount=xxxxxxxxxxx1111&Ecom_Trans_ExpDate_Month=02&Ecom_Trans_ExpDate_Year=2003&Ecom_Trans_PaymentType=VI&Ecom_Trans_AccountUpdateId=&Ecom_Error_Code=5611&Ecom_Error_Description=Card%20Expired
```

Example 5 – XML Formatted Response (Error Transaction)

```
<?xml version = "1.0"?>
<!DOCTYPE ASSUREBUY.ECOMRESPONSE SYSTEM
    "http://xml.bluepay.com/AB/assurebuy_ecomresponse_48.dtd">
<ASSUREBUY.ECOMRESPONSE>
  <Error>
    <Code>5611</Code>
    <Description>Card Expired</Description>
  </Error>
  <GatewayVersion>4.8</GatewayVersion>
  <Mode>P</Mode>
  <Order>
    <Date>20170612 112542</Date>
    <Reference></Reference>
    <SellerOrderID>18271</SellerOrderID>
    <Transaction>
      <AccountUpdateId></AccountUpdateId>
      <ExpDate>
        <Month>02</Month>
        <Year>2025</Year>
      </ExpDate>
      <PaymentAccount>xxxxxxxxxxx1111</PaymentAccount>
      <PaymentType>VI</PaymentType>
    </Transaction>
  </Order>
  <ReturnCode>5611</ReturnCode>
  <SessionID>03307C08F2236181</SessionID>
</ASSUREBUY.ECOMRESPONSE>
```

Step Five – Processing the Response Data

The response returned from the BluePay Internet Payment Gateway will contain all of the information required to evaluate and process the response data. Depending upon your specific application, the response data can be handled in many different ways. What follows is a typical step-by-step example of how you might evaluate the response.

1. Verify that a complete response has been received by examining the post buffer and parsing the XML data if necessary.
2. Examine the contents of the **Ecom_Mode** parameter and ensure that it matches the mode sent as part of the input parameters. NOTE: It is very important that this step be performed to avoid handling a test transaction as a production, or live, order. Test transactions are not saved in the BluePay database and are not sent to the payment processor for authorization. All test results are simulated.
3. Check the value of the **Ecom_ReturnCode** parameter. If this parameter contains a value other than **0000**, then an error has occurred. Retrieve the error parameters to obtain the error code and description of the error.
4. Examine the contents of the **Ecom_Trans_Action** parameter to ensure that it matches the action requested by the **Ecom_Payment_Action** input parameter.
5. Examine the contents of the **Ecom_Trans_Result** parameter. This parameter indicates the outcome of the requested payment transaction. If the result is **Y**, then the requested transaction has been approved and the remaining transaction parameters should be retrieved and stored with the order information. A result of **N**, indicates that the actual payment authorization failed. Retrieve the contents of the **Ecom_Trans_AuthCode** parameter for the detailed response from the payment processing network.
6. If the transaction has been approved, you may also want to check the results of the AVS (Address Verification Service) parameters to identify whether or not the BillTo address information matched the information on file for the credit card holder. NOTE: AVS is not supported by all Visa/MasterCard member banks. As a result, the response will occasionally contain a value of **U**, indicating that the service was not available for the current transaction.
7. Retrieve and process any remaining parameters that may be required for your specific implementation of the payment gateway.
8. Regardless of the result of the payment authorization process, it is a good idea to send an e-mail confirmation or receipt to the customer immediately following the completion of the payment authorization process. If your web site does not support the sending of such e-mails, this service can also be provided by BluePay. Contact your account representative for more information.

TESTING CONSIDERATIONS

The BluePay Internet Payment Gateway can be set to process transactions in “Test” mode during the integration process. To enable the payment gateway for testing purposes, simply change the value of the **Ecom_Mode** parameter from **P** (Production/Live) to **T** (Test/Development).

Do not attempt to use the test transaction results in any way other than for testing purposes. Test transactions are not saved in the BluePay database and are not sent to the payment processor for authorization. All test results are simulated.

For test mode the transaction result is determined by the dollar portion of the transaction amount without cents. An odd dollar amount will return a approval. A even dollar amount will return a decline.

In test mode, the payment gateway will perform the same set of error validation as performed for production/live orders. To simulate an error response while in test mode simply configure the input parameters to cause an error to be generated.

IMPORTANT NOTE: It is highly recommended that the **Ecom_Mode** parameter be examined for every response from the BluePay Internet Payment Gateway. Failure to examine this parameter, and failure to properly handle the results as test or production could cause the loss of order data or could result in charges to a customer’s credit card. BluePay is not liable for your incorrect use of the results returned by the BluePay Internet Payment Gateway.

APPENDIX A - ERROR CODES

The following table lists the common error codes and messages associated with the BluePay Internet Payment Gateway:

Error Code	Description
5102	Missing required parameter(s).
5113	Account lookup failed or invalid format of account ID.
5505	Missing or invalid amount.
5603	Missing or invalid payment card type.
5604	Missing or invalid original transaction ID or card account invalid.
5610	Missing or invalid payment expiration.
5611	Card expired.
5614	Missing or invalid transaction ID.
5616	Invalid transaction type.
9999	Unknown error.

Table 8

APPENDIX B - ISO 3166 STANDARD COUNTRY CODES

The International Standards Organization (ISO) country codes used by BluePay are as follows:

Country	Code
AFGHANISTAN	AF
ALBANIA	AL
ALGERIA	DZ
AMERICAN SAMOA	AS
ANDORRA	AD
ANGOLA	AO
ANGUILLA	AI
ANARCTICA	AQ
ANTIGUA AND BARBUDA	AG
ARGENTINA	AR
ARMENIA	AM
ARUBA	AW
AUSTRALIA	AU
AUSTRIA	AT
AZERBAIJAN	AZ
BAHAMAS	BS
BAHRAIN	BH
BANGLADESH	BD
BARBADOS	BB
BELARUS	BY
BELGIUM	BE
BELIZE	BZ
BENIN	BJ
BERMUDA	BM
BHUTAN	BT
BOLIVIA	BO
BOSNIA AND HERZEGOVINA	BA
BOTSWANA	BW
BOUVET ISLAND	BV
BRAZIL	BR
BRITISH INDIAN OCEAN TERRITORY	IO
BRUNDEI DARUSSALAM	BN
BULGARIA	BG
BURKINA FASO	BF
BURUNDI	BI
CAMBODIA	KH
CAMEROON	CM
CANADA	CA
CAPE VERDE	CV
CAYMAN ISLANDS	KY
CENTRAL AFRICAN REPUBLIC	CF
CHAD	TD
CHILE	CL
CHINA	CN
CHRISTMAS ISLAND	CX
COCOS (KEELING) ISLANDS	CC
COLOMBIA	CO
COMOROS	KM

CONGO	CG
CONGO, THE DEMOCRATIC REPUBLIC OF THE/ZAIRE	CD
COOK ISLANDS	CK
COSTA RICA	CR
COTE D'VOIRE	CI
CROATIA	HR
CUBA	CU
CYPRUS	CY
CZECH REPUBLIC	CZ
DENMARK	DK
DJIBOUTI	DJ
DOMINICA	DM
DOMINICAN REPUBLIC	DO
EAST TIMOR	TP
ECUADOR	EC
EGYPT	EG
EL SALVADOR	SV
EQUATORIAL GUINEA	GQ
ERITREA	ER
ESTONIA	EE
ETHIOPIA	ET
FALKLAND ISLANDS (MALVINAS)	FK
FAROE ISLANDS	FO
FIJI	FJ
FINLAND	FI
FRANCE	FR
FRENCH GUIANA	GF
FRENCH POLYNESIA	PF
FRENCH SOUTHERN TERRITORIES	TF
GABON	GA
GAMBIA	GM
GEORGIA	GE
GERMANY	DE
GHANA	GH
GIBRALTAR	GI
GREECE	GR
GREENLAND	GL
GRENADA	GD
GUADELOUPE	GP
GUAM	GU
GUATEMALA	GT
GUINEA	GN
GUINEA-BISSAU	GW
GUYANA	GY
HAITI	HT
HEARD ISLAND AND MCDONALD ISLANDS	HM
HOLY SEE (VATICAN CITY STATE)	VA
HONDURAS	HN
HONG KONG	HK
HUNGARY	HU
ICELAND	IS
INDIA	IN
INDONESIA	ID
IRAN, ISLAMIC REPUBLIC OF	IR

IRAQ	IQ
IRELAND	IE
ISREAL	IL
ITALY	IT
JAMAICA	JM
JAPAN	JP
JORDAN	JO
KAZAKSTAN	KZ
KENYA	KE
KIRIBATI	KI
KOREA, DEMOCRATIC PEOPLE’S REPUBLIC OF	KP
KOREA, REPUBLIC OF	KR
KUWAIT	KW
KYRGYZSTAN	KG
LAO PEOPLE’S DEMOCRATIC REPUBLIC	LA
LATVIA	LV
LEBANON	LB
LESOTHO	LS
LIBERIA	LR
LIBYAN ARAB JAMAHIRIYA	LY
LIECHTENSTEIN	LI
LITHUANIA	LT
LUXEMBOURG	LU
MACAU	MO
MACEDONIA, THE FORMER YUGOSLAV REPUBLIC OF	MK
MADAGASCAR	MG
MALAWI	MW
MALAYSIA	MY
MALDIVES	MV
MALI	ML
MALTA	MT
MARSHALL ISLANDS	MH
MARTINIQUE	MQ
MAURITANIA	MR
MAURITIUS	MU
MAYOTTE	YT
MEXICO	MX
MICRONESIA, FEDERATED STATES OF	FM
MOLDOVA, REPUBLIC OF	MD
MONACO	MC
MONGOLIA	MN
MONTSERRAT	MS
MOROCCO	MA
MOZAMBIQUE	MZ
MYANMAR	MM
NAMIBIA	NA
NAURU	NR
NEPAL	NP
NETHERLANDS	NL
NETHERLANDS ANTILLES	AN
NEW CALEDONIA	NC
NEW ZEALAND	NZ
NICARAGUA	NI
NIGER	NE

NIGERIA	NG
NIUE	NU
NORFOLK ISLAND	NF
NORTHERN MARIANA ISLANDS	MP
NORWAY	NO
OMAN	OM
PAKISTAN	PK
PALAU	PW
PALESTINIAN TERRITORY, OCCUPIED	PS
PANAMA	PA
PAPUA NEW GUINEA	PG
PARAGUAY	PY
PERU	PE
PHILIPPINES	PH
PITCAIRN	PN
POLAND	PL
PORTUGAL	PT
PUERTO RICO	PR
QATAR	QA
REUNION	RE
ROMANIA	RO
RUSSIAN FEDERATION	RU
RWANDA	RW
SAINT HELENA	SH
SAINT KITTS AND NEVIS	KN
SAINT LUCIA	LC
SAINT PIERRE AND MIQUELON	PM
SAINT VINCENT AND THE GRENADINES	VC
SAMOA	WS
SAN MARINO	SM
SAO TOME PRINCIPE	ST
SAUDI ARABIA	SA
SENEGAL	SN
SEYCHELLES	SC
SIERRA LEONE	SL
SINGAPORE	SG
SLOVAKIA	SK
SLOVENIA	SI
SOLOMON ISLANDS	SB
SOMALIA	SO
SOUTH AFRICA	ZA
SOUTH GEORGIA /SOUTH SANDWICH ISLANDS	GS
SPAIN	ES
SRI LANKA	LK
SUDAN	SD
SURINAME	SR
SVALBARD AND JAN MAYEN	SJ
SWAZILAND	SZ
SWEDEN	SE
SWITZERLAND	CH
SYRIAN ARAB REPUBLIC	SY
TAIWAN	TW
TAJIKISTAN	TJ
TANZANIA	TZ

THAILAND	TH
TOGO	TG
TOKELAU	TK
TONGA	TO
TRINIDAD AND TOBAGO	TT
TUNISIA	TN
TURKEY	TR
TURKMENISTAN	TM
TURKS AND CAICOS ISLANDS	TC
TUVALU	TV
UGANDA	UG
UKRAINE	UA
UNITED ARAB EMIRATES	AE
UNITED KINGDOM	GB
UNITED STATES	US
UNITED STATES MINOR OUTLYING ISLANDS	UM
URUGUAY	UY
UZBEKISTAN	UZ
VANUATU	VU
VENEZUELA	VE
VIET NAM	VN
VIRGIN ISLANDS, BRITISH	VG
VIRGIN ISLANDS, U.S.	VI
WALLIS AND FUTUNA	WF
WESTERN SAHARA	EH
YEMEN	YE
YUGOSLAVIA	YU
ZAMBIA	ZM
ZIMBABWE	ZW

Table 9

APPENDIX C - ISO 4217 STANDARD CURRENCY CODES

The International Standards Organization (ISO) currency codes used by BluePay are as follows:

Code	Description
ADP	ANDORRAN PESETA
AED	UNITED ARAB EMIRATES DIRHAM
AFA	AFGHANISTAN AFGHANI
ALL	ALBANIAN LEK
ANG	NETHERLAND ANTILLIAN GUILDER
AOK	ANGOLAN KWANZA
ARA	ARGENTINIAN AUSTRAL
ATS	AUSTRIAN SCHILLING
AUD	AUSTRALIAN DOLLAR
AWG	ARUBAN FLORIN
BBD	BARBADOS DOLLAR
BDT	BANGLADESHI TAKA
BEF	BELGIAN FRANC
BGL	BULGARIAN LEV
BHD	BAHRAINI DINAR
BIF	BURUNDI FRANC
BMD	BERMUDIAN DOLLAR
BND	BRUNEI DOLLAR
BOB	BOLIVIAN BOLIVIANO
BRC	BRAZILIAN CRUZEIRO
BSD	BAHAMIAN DOLLAR
BTN	BHUTAN NGULTRUM
BUK	BURMA KYAT
BWP	BOTSWANIAN PULA
BZD	BELIZE DOLLAR
CAD	CANADIAN DOLLAR
CHF	SWISS FRANC
CLF	CHILEAN UNIDADES DE FOMENTO
CLP	CHILEAN PESO
CNY	YUAN (CHINESE) RENMINBI
COP	COLUMBIAN PESO
CRC	COSTA RICAN COLON
CSK	CZECH KORUNA
CUP	CUBAN PESO
CVE	CAPE VERDE ESCUDO
CYP	CYPRUS POUND
DDM	EAST GERMAN MARK (DDR)
DEM	DEUTSCHE MARK
DJF	DJIBOUTI FRANC
DKK	DANISH KRONE
DOP	DOMINICAN PESO
DZD	ALGERIAN DINAR
ECS	ECUADOR SUCRE
EGP	EGYPTIAN POUND
ESP	SPANISH PESETA
ETB	ETHIOPIAN BIRR
EUR	EURO
FIM	FINNISH MARKKA
FJD	FIJI DOLLAR

FKP	FALKLAND ISLANDS POUND
FRF	FRENCH FRANC
GBP	BRITISH POUND
GHC	GHANAIAN CEDI
GIP	GIBRALTAR POUND
GMD	GAMBIAN DALASI
GNF	GUINEA FRANC
GRD	GREEK DRACHMA
GTQ	GUATEMALAN QUETZAL
GWP	GUINEA-BISSAU PESO
GYD	GUYANAN DOLLAR
HKD	HONG KONG DOLLAR
HNL	HONDURAN LEMPIRA
HTG	HAITIAN GOURDE
HUF	HUNGARIAN FORINT
IDR	INDONESIAN RUPIAH
IEP	IRISH PUNT
ILS	ISRAELI SHEKEL
INR	INDIAN RUPEE
IQD	IRAQI DINAR
IRR	IRANIAN RIAL
ISK	ICELAND KRONA
ITL	ITALIAN LIRA
JMD	JAMAICAN DOLLAR
JOD	JORDANIAN DINAR
JPY	JAPANESE YEN
KES	KENYAN SCHILLING
KHR	KAMPUCHEAN (CAMBODIAN) RIEL
KMF	COMOROS FRANC
KPW	NORTH KOREAN WON
KRW	(SOUTH) KOREAN WON
KWD	KUWAITI DINAR
KYD	CAYMAN ISLANDS DOLLAR
LAK	LAO KIP
LBP	LEBANESE POUND
LKR	SRI LANKA RUPEE
LRD	LIBERIAN DOLLAR
LSL	LESOTHO LOTI
LUF	LUXEMBOURG FRANC
LYD	LIBYAN DINAR
MAD	MOROCCAN DIRHAM
MGF	MALAGASY FRANC
MNT	MONGOLIAN TUGRIK
MOP	MACAU PATACA
MRO	MAURITANIAN OUGUIYA
MTL	MALTESE LIRA
MUR	MAURITIUS RUPEE
MVR	MALDIVE RUFUYAA
MWK	MALAWI KWACHA
MXP	MEXICAN PESO
MYR	MALAYSIAN RINGGIT
MZM	MOZAMBIQUE METICAL
NGN	NIGERIAN NAIRA
NIC	NICARAGUAN CORDOBA

NLG	DUTCH GUILDER
NOK	NORWEGIAN KRONER
NPR	NEPALESE RUPEE
NZD	NEW ZEALAND DOLLAR
OMR	OMANI RIAL
PAB	PANAMANIAN BALBOA
PEI	PERUVIAN INTI
PGK	PAPUA NEW GUINEA KINA
PHP	PHILIPPINE PESO
PKR	PAKISTAN RUPEE
PLZ	POLISH ZLOTY
PTE	PORTUGUESE ESCUDO
PYG	PARAGUAY GUARANI
QAR	QATARI RIAL
ROL	ROMAIAN LEU
RWF	RWANDA FRANC
SAR	SAUDI ARABIAN RIYAL
SBD	SOLOMON ISLANDS DOLLAR
SCR	SEYCHELLES RUPEE
SDP	SUDANESE POUND
SEK	SWEDISH KRONA
SGD	SINGAPORE DOLLAR
SHP	ST. HELENA POUND
SLL	SIERRA LEONE LEONE
SOS	SOMALI SCHILLING
SRG	SURINAME GUILDER
STD	SAO TOME AND PRINCIPE DOBRA
SUR	USSR ROUBLE
SVC	EL SALVADOR COLON
SYP	SYRIAN POTMD
SZL	SWAZILAND LILANGENI
THB	THAI BHAT
TND	TUNISIAN DINAR
TOP	TONGAN PA'ANGA
TPE	EAST TIMOR ESCUDO
TRL	TURKISH LIRA
TTD	TRINIDAD AND TOBAGO DOLLAR
TWD	TAIWAN DOLLAR
TZS	TANZANIAN SCHILLING
UGS	UGANDA SHILLING
USD	US DOLLAR
UYP	URUGUAYAN PESO
VEB	VENEZUALAN BOLIVAR
VND	VIETNAMESE DONG
VUV	VANUATU VATU
WST	SAMOAN TALA
YDD	DEMOCRATIC YEMENI DINAR
YER	YEMENI RIAL
YUD	NEW YUGOSLAVIA DINAR
ZAR	SOUTH AFRICAN RAND
ZMK	ZAMBIAN KWACHA
ZRZ	ZAIRE ZAIRE
ZWD	ZIMBABWE DOLLAR

Table 10

###

This report is a technical document, distributed by BluePay, Inc., for partners and clients. BluePay is an experienced leader in the outsourced Internet payment and transaction processing industry. The company is headquartered in Naperville, Illinois.