

IGS Payment Service Developer Guide

Web Service Overview

The IGS Payment Service is a XML Web Service for processing credit card payments. XML Web Services are units of application logic that are used as building blocks for distributed computing on the Internet. The need for open standards for communicating between applications drove the design and development of Web Services. Web Services offer the following benefits:

- XML Web Services allow applications written in different languages on different operating platforms can communicate in a standards-based way.
- An XML Web Service describes its interface via Web Services Description Language (WSDL) so that any developer can easily build an application which can talk to it.
- Like software components designed for an application, Web Services are components for building distributed applications without having to know where they reside or how they are implemented.

XML Web Services are built on standard protocols such as HTTP, SOAP (Simple Object Access Protocol), and XML and are supported by many companies such as Microsoft, IBM, Sun, HP, EDS, Oracle, and many others. A number of solutions are built around these standards and the number is growing rapidly.

Interface

A web service publishes its interface via WSDL (Web Services Description Language). As such, the IGS Payment Service exposes its interface which allows virtually any developer the ability to call its methods.

The service resides at the following URL:

<https://WebServices.InnovativeGateway.com/IGSPaymentService/IGSPaymentService.asmx>

Figure 1 shows this link from a browser.

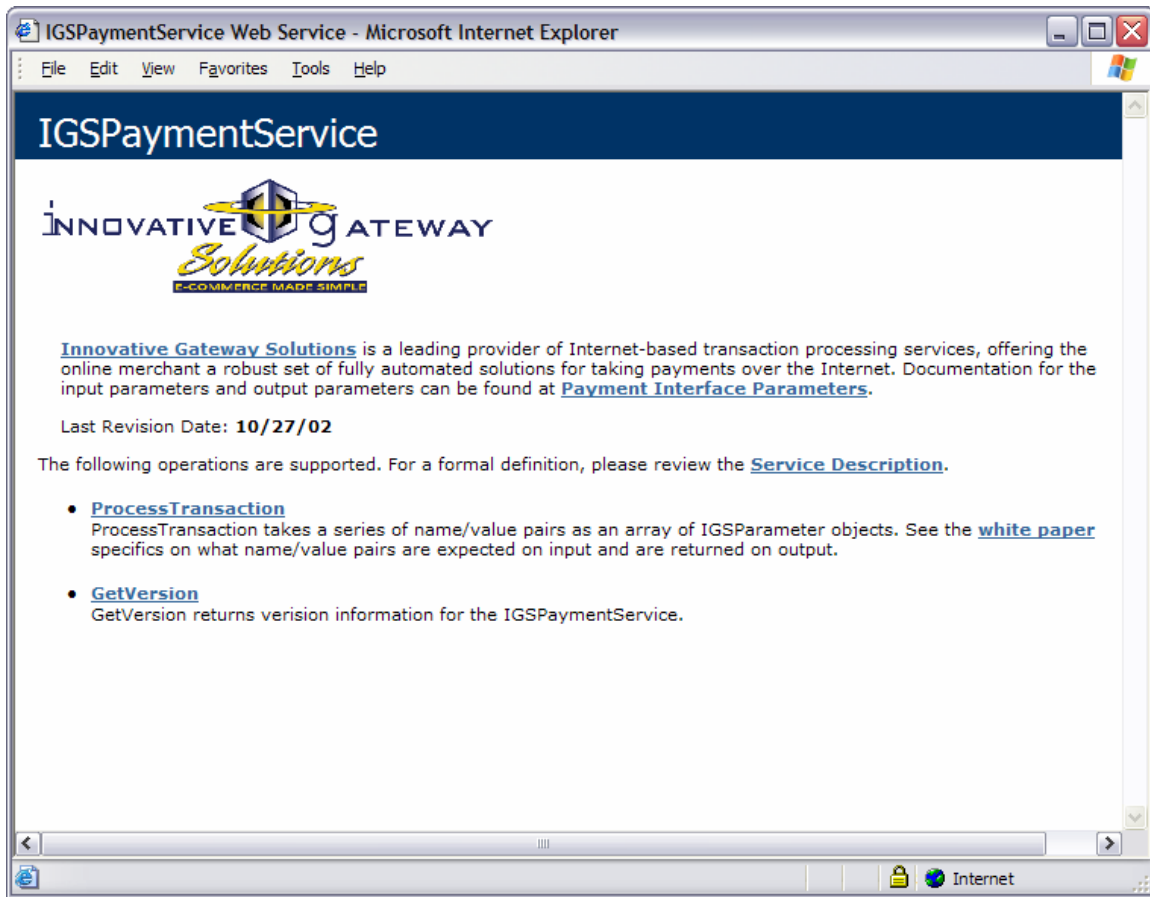


Figure 1. Payment service view from a browser.

Transactions cannot be processed via the browser, but the browser allows you to view the web service description as well as additional links to view the WSDL and interface methods.

GetVersion() method

The GetVersion() method takes no arguments and returns a string. The string is a formatted version number in the following format:

`<major version>.<minor version>.<build number>.<revision number>`

The version at the time of this writing is

`1.0.1040.37277`

The GetVersion() method can be invoked from the browser by selecting the GetVersion link which is shown in Figure 2.

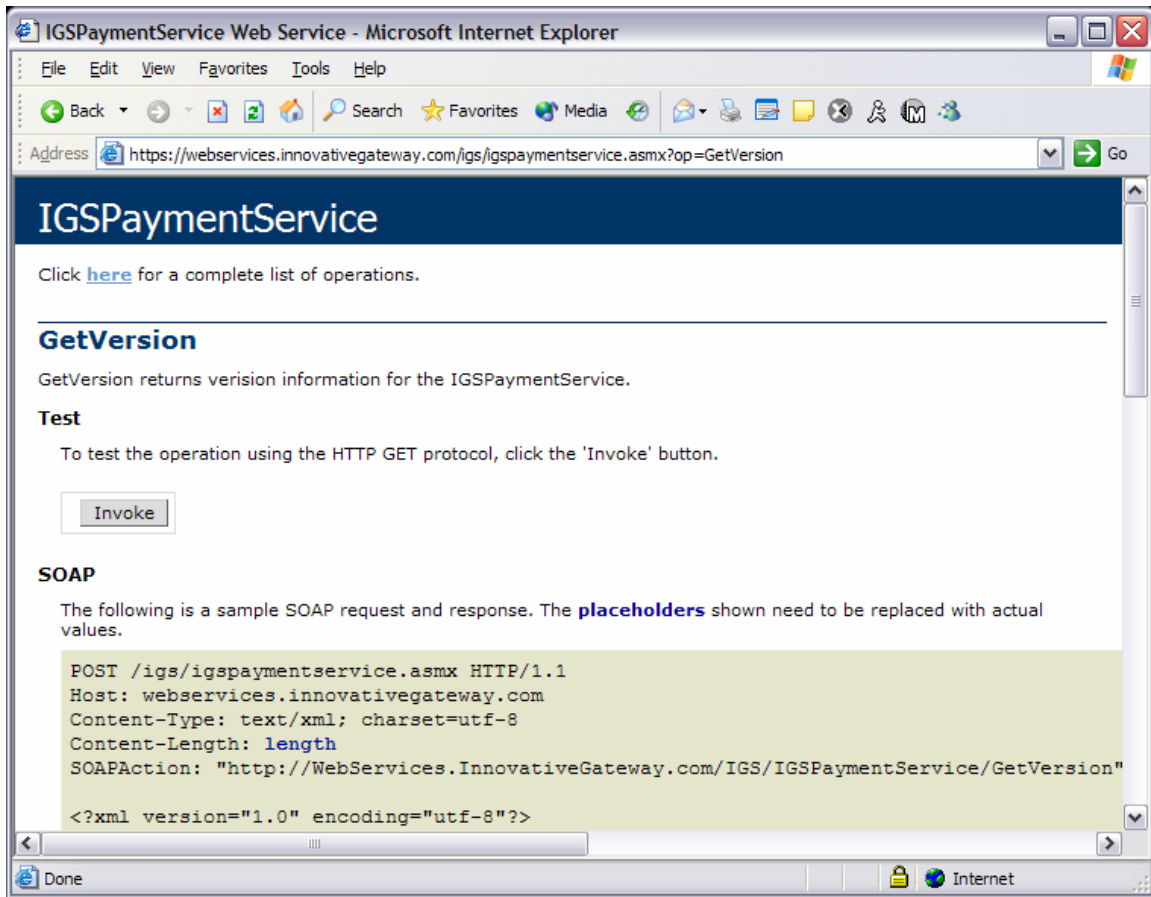


Figure 2. GetVersion() method

The Invoke button, when pressed, will execute the GetVersion() method as shown in Figure 3.

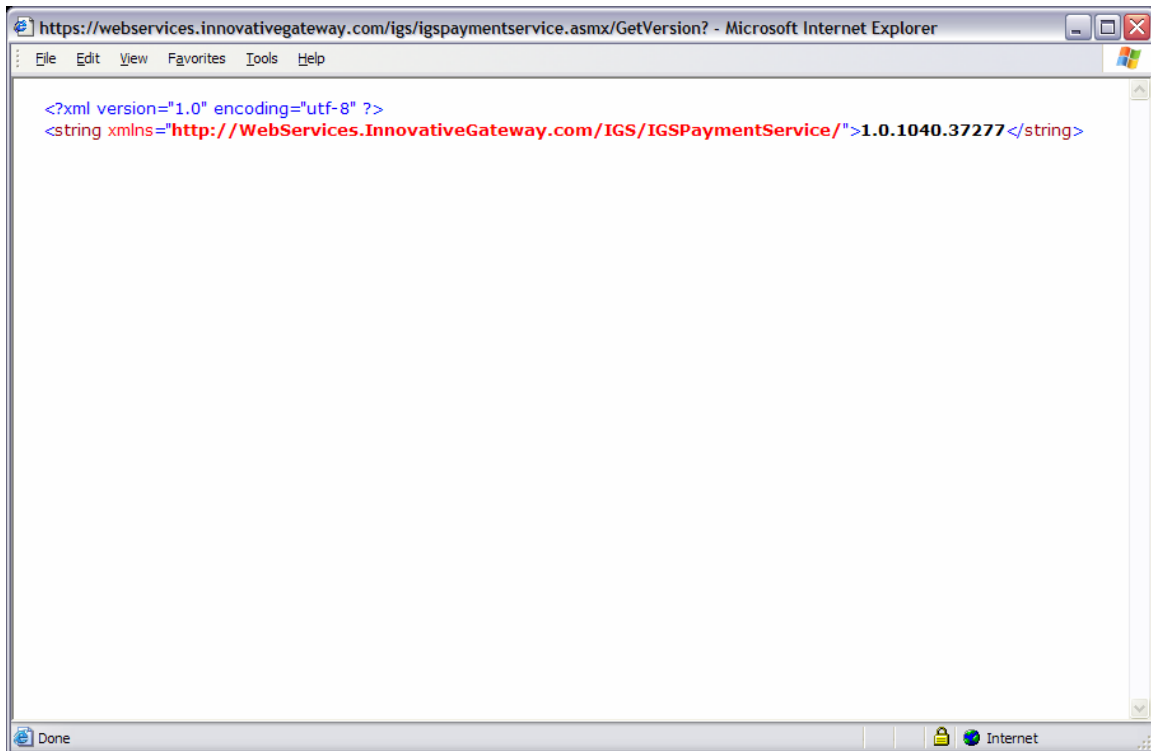


Figure 3. Invocation of GetMethod()

ProcessTransaction() method

The ProcessTransaction() method processes a single credit card transaction. The method signature is as follows:

```
IGSPParameter[] ProcessTransaction(IGSPParameter[] request);
```

The input parameter and return value is an array of IGSPParameter objects which consists of a name/value pair. The IGSPParameter class is defined as follows:

```
class IGSPParameter {  
    public string Name;  
    public string Value;  
}
```

The request parameter is an array of name/value pairs of required and optional fields for processing the transaction. (See Table 1 for the list of required, optional, and return name/value pairs.) The ProcessTransaction() method validates the input arguments, processes the payment request, and returns the input arguments as well as the results of the transaction as the return value.

The client application should always check for the "error" name in the response first. If the "error" name is not in the response, then the transaction was successful. Otherwise, the "error" value contains the reason for the failure.

Table 1. Name/Value Pairs

Name	Value	Required, Optional, Return	Comment
target_app	"WebCharge_v5.06"	Required	
upg_auth	"zxcvkljh"	Required	
cardtype	One of: "visa", "mc", "amex", "diners", "discover", "jcb"	Required	
ccname	Card holder name	Required	The name of the card holder as it appears on the card.
ccnumber	Card number	Required	
fulltotal	Amount of purchase	Required	
month	Expiration month	Required	Two digit month
year	Expiration year	Required	Two or four digit year
username	IGS user name	Required	User name given by IGS
pw	IGS user password	Required	
trantype	One of: "preauth", "postauth", "sale", "credit", "void"	Required	Transaction type
reference	Unique	Required for trantype "postauth", "void", and "credit"	Equals the original "APPROVAL" value returned
trans_id	Unique	Required for trantype "postauth", "void", and "credit"	Equals the original "ANATRANSID" value returned
authamount	Unique	Required for trantype "postauth"	The original amount
baddress	Unique	Optional but may be required by merchant setup	Billing address line 1
baddress1	Unique	Optional but may be required by merchant setup	Billing address line 2
bcity	Unique	Optional but may be required by merchant setup	Billing City

bstate	Unique	Optional but may be required by merchant setup	Billing State
bzip	Unique	Optional but may be required by merchant setup	Billing Zip Code
bcountry	Unique	Optional but may be required by merchant setup	Billing Country
bphone	Unique	Optional but may be required by merchant setup	Billing Phone Number
bfax	Unique	Optional	Billing fax number. Area code and phone number. (Format variations accepted.)
email	Unique	Optional but may be required by merchant setup	Billing email address
bnameprefix	Unique	Optional	Billing first name prefix
bnamesuffix	Unique	Optional	Billing last name suffix
saddress1	Unique	Optional	Shipping street address line one
saddress	Unique	Optional	Shipping street address line two
scity	Unique	Optional	Shipping city
scountry	Unique	Optional	Shipping country
sphone	Unique	Optional	Shipping phone number
semail	Unique	Optional	Shipping email address
sfax	Unique	Optional	Shipping fax number
snameprefix	Unique	Optional	Shipping first name prefix
snamesuffix	Unique	Optional	Shipping last name suffix
error	Unique	Return	If this field has a value in it the transaction did not complete. It will then need to be parse for the values in it
approval	Unique	Return	If this field has a value it will be the authorization code. It can then be assumed the transaction completed normally
anatransid	Unique	Return	The "Application New Assigned Transaction Id". This is the transaction number on

			our system. This allows you to do many things in connecting to our systems later in reference to this transaction. It is needed for CREDITS, POSTAUTHS, and VOIDS
ordernumber	Unique	Optional/Return	Merchant tracking number. If this field was blank on input, the Innovative Gateway Solutions assigned number is returned. Only for preauth & sale transactions
avs	Unique	Return	AVS code for preauth & sale transactions
amount	Unique	Return	Decimal value excluding \$ sign. Should match fulltotal if fulltotal was correctly formatted
duplicate	Yes	Return	Value of yes indicates this transaction was treated as a duplicate transaction
NotifyEmail	Unique	Optional	Value of "no" will suppress. An email address will generate additional confirmation email
test_override_errors	Any Value	Optional	Any value with username gatewaytest overrides errors and forces approval
ReceiptEmail	Unique	Optional	Value of "no" will suppress receipt email otherwise sent to purchaser
voiceauth	Unique	Optional	Only used when trantype=postauth Value of "yes" indicates that this is a voice authorization. The default is voiceauth=no
field_capture	Unique	Optional	Optional - for merchant use Comma separated list of fields to be stored with this transaction on the Innovative Gateway Solutions server

			Ex. field_capture=storename, billcenter, shipdock, warehouse, tracknum
xsubjectnotify	Unique	Optional	Allows merchant to specify a unique subject for the email sent to the notification email
xheader	Unique	Optional	Header description created by the Look & Feel Editor for use with payment pages
xemailfds	Unique	Optional	Comma delimited list of field names to add with their values to the notify email
po_number	Unique	Optional	Purchase order number / customer code
Ecom_ShipTo_Postal_PostalCode	Unique	Optional	Ship to zip code
tax_exempt_ind	Unknown exempt non-exempt	Optional	Tax status of transaction
tax_amount	Unique	Optional	Amount of tax calculated or entered (spaces if not applicable)
duty_amount	Unique	Optional	Amount of duty calculated or entered (spaces if not applicable)
freight_amount	Unique	Optional	Amount of freight calculated or entered (spaces if not applicable)
ccidentifier1	Unique	Optional	CVV2 Identifier From Card