Manual de Integración

Guía de integración estándar para pagos desde su sitio web

VERSIÓN 2.8





INDICE

Content

Chapter 1. INTRODUCTION	
Chapter 2. DESCRIPTION	4
Chapter 3. INTEGRATION PROCESS.	
3.1 Shipping page	
3.1.1 Calculating Return base	
3.1.2 Generation of Digital Signatures	
3.1.3 Generating digital signatures with PHP	
3.1.4 Generating digital signatures with JAVA	
3.1.5 Generating digital signatures with Visual Basic .NET	
Chapter 4: THE ANSWER PAGE	
4.1 PHP example: how to capture variables from the answer URL	
4.2 JAVA example: how to capture variables from the answer URL	
4.3 ASP.NET example: how to capture variables from the answer U	JRL19
Chapter 5. CONFIRMATION PAGE.	
5.1 PHP example: how to capture variables from the confirmation	URL
5.2. JAVA example: how to capture variables from the confirmation	n URL22
5.3 ASP.NET example: how to capture variables from the confirma	tion URL22
Chapter 6: MOST FREQUENT ERRORS	
Chapter 7: TRAVEL AGENCIES MODULES	
Chapter 8. TESTING	
8.1 Tests with Credit Cards.	
8.2 Testing using PSE (Current and savings accounts)	
Chapter 9: PSE CERTIFICATION	
ANNEXES	
GLOSSARY	



| Chapter 1. INTRODUCTION

In order to accept payments with debit and credit cards through Pagosonline you must connect your website with our transactional system. We call this process "Integration".

Once you have ended the connection, you will be able to receive payments from anywhere in the world, in different currencies and languages, using our Anti-Fraud system and the cutting edge of technology to guarantee safety and reliability of transactions.

The standard integration Guide for payments from your website provides information on the main functions of Pagosonline, and explains how to use them to cover your payment needs in Internet.

Use the standard integration Guide for the following:

- Setting up in a fast and simple way your e-commerce functionality using Pagosonline. For instance, learn how to integrate Pagosonline in your website in just few minutes using HTML forms.
- Knowing the most advanced techniques and tools to take advantage of services provided by Pagosonline.
- Knowing the information that has to be sent to and received from Pagosonline.
- Understanding what purchasers can see at the time of the payment within Pagosonline. For instance, what means for a new purchaser "Payments Bridge"
- Knowing how Pagosonline works to visualize better the flow of the payments.
- Reviewing the recommended solutions and good practices.

The Standard Integration Guide includes information and instructions on how to use the following functions:

- Payment, answer and confirmation pages
- Delivery and handling Information
- Supported currencies.
- Different ways of payment.
- Allowed languages.

Note: Please contact the technical support area in Pagosonline or access our forum: <u>http://foros.Pagosonline/</u> to know other integration forms and functionalities such as Recurrent Payments.



| Chapter 2. DESCRIPTION



Figura 2.1. Typical transaction cycle

The first step is when the purchasers enter into the Company's website and select products and/or services they want to buy. (1) The website has to be able to calculate the total purchase and generate a data frame which has to be sent to the transactional system of Pagosonline through a POST method.

(2). The transactional system validates the sent data frame. Then the customer should fill out the information of his credit card and Pagosonline sends this data to the Bank.

(3). The bank processes the transaction and returns an answer of this transaction to our transactional system.

(4). The system sends to the purchaser back to the company's website, specifically to the (4a) Answer Page; such page is able to display all the current information of the transaction. When this transaction is processed completely, the result of this transaction is sent to the (4b)Confirmation Page.

Nota: The Answer and Confirmation pages are described in detail in later chapters



Pagosonline has an Anti-Fraud module, which uses cutting edge technology in artificial intelligence to evaluate transactions, depending on the company's configuration and the risk rate associated to a transaction; the transaction would be sent to a manual validation process, delaying the delivery of information to the Bank while the data of the transaction is verified.

When this happens, the purchaser should see in the Answer Page that this transaction is under process of validation.



Important

The standard Integration process is described through this manual for small to medium companies and individuals that have a Pyme account with us. If your company has a corporate account (*plan empresarial*) and uses its own merchant accounts, it is necessary to fulfill some requirements and undergo a process of acquiring a certificate from ACH in order to be able to collect with debit cards of current or savings accounts. Please consult your commercial advisor or directly with the technical support area of Pagosonline for additional information.



| Chapter 3. INTEGRATION PROCESS

To use Pagosonline, it is necessary to develop three dynamic pages: The shipping page to send data (obligatory), the Answer page and the Confirmation page to receive data (optional). Functionality of each page and associated parameters are described below. Additionally, we describe in this section how to generate digital signatures of transactions. Examples using PHP, JAVA and Asp.Net are provided.

Note: See image of the flow for a transaction. Figure 2.1.



Important

If you do not want to use the Answer and Confirmation pages, it is necessary to at least re-address the payment flow to the index, for this purpose you have to set up the Answer page in your Pagosonline administrative module.

3.1 Shipping page

This is the page which sends the information to the Pagosonline transactional system using an HTLM form. The data frame must include at least the following information: "refVenta" of the transaction (unique id of each transaction), the value of the transaction (\$), the amount of VAT, description of the sale, and the user id of the Company in Pagosonline. This data frame must provide the exact identification of the product or service is payed by the purchaser, it is possible to include the purchaser's basic details as email and number of telephone. We recommend to send the purchaser's email, in this way, we will send an email with the transaction result.

All the information of the payment has to be sent to the following URL:

https://gateway.Pagosonline/apps/gateway/index.html



Important

The link address is under an SSL layer certified by VERISIGN

http://www.verisign.com/latinamerica/esp/





Important

If you send a payment request with the same reference number but with a different amount or description, the system will generate the error (-2017), see Chapter 6. (most frequent errors)



Next we are presenting an example of an HTML form:

<form method="post" action="https://gateway.Pagosonline/apps/gateway/index.html">
 <input name="usuariold" type="text" value="2">
 <input name="descripcion" type="text" value="Pruebas">
 <input name="descripcion" type="text" value="Pruebas">
 <input name="refVenta" type="text" value="0001">
 <input name="valor" type="text" value="116000">
 <input name="baseDevolucionlva" type="text" value="100000">
 <input name="iva" type="text" value="16000">
 <input name="iva" type="text" value="604f9837325a1948796680e450a820b0">
 <input name="Submit" type="submit" value="Enviar">
 <//r>

In this HTML form is seen a transaction generated by the user No. 2, with a description of "Pruebas", a static reference of "0001" purchase, with a total value of "\$116000", a return base of "100000" and the value of VAT of "\$16000". The amount was sent in Colombian pesos using the currency variable of "COP", and a digital signature that was generated with the value of "694f9837325a1948796680e450a820b0", this firm guarantees the authenticity and integrity of the transaction.

Below we are showing a table with the basic parameters sent by the shipping *page*. The information of each parameter provided is the following: type field (N: Numerical, A: Alphanumeric), maximum length allowed, if it is a required parameter or not and a general description. We provide information about other parameters not included in this table in the Attachment 3.

Parameter	Туре.	Length.	Req.	Description
usuariold	N	12	Yes	The user number in the Pagosonline system. Such number will be found in the confirmation mail when your account was created in our system.
refVenta	A	50	Yes	Sale or order reference. It must be unique for each transaction.
descripcion	A	255	Yes	Sale description
valor	N	14,2	Yes	The total amount of the transaction. It has two decimal digits. Example: 10000.00, which means ten thousand with no decimals. (the currency depends on the variable "moneda", by default is in "pesos colombianos" COP)
iva	N	14,2	Yes	Is the amount of the VAT in the specified currency or in pesos if it is not specified. If this value is null 16% will be applied automatically. It has two decimal digits. Example: 16000.00. In case there is not VAT in your product 0 must be applied
baseDevoluciónIva	N	14,2	Yes	The value of the return base for products taxed. In case the sale does not have VAT, 0 must be applied.

Table 3.1. Basic parameters of the shipping page.

firma	А	32	Yes	The digital signature of the transaction using the algorithm
				Md5. See section 3.1.2 generation of digital signatures
emailComprador	A	255	No	This field has the Purchaser's e-mail to inform him/her the result of the transaction by electronic mail
prueba	N	1	No	If the variable value is "1" the transaction is considered as a test transaction.
Ing	A	3	No	ISO-639 Code for the language in which the payment bridge will be displayed. See languages allowed in the Attachment No. 2
moneda	A	3	No	ISO-4217 Code of the respective currency in which payment information will be displayed. The reconciliation process is performed in pesos at the representative exchange rate of such date. See allowed currencies in the Attachment No. 1
valorAdicional	Ν	14,2	No	Additional amount not subject to commission by the financial entity. Example: Tips in a restaurant.
nombreComprador	А	50	No	Purchaser's name. This value will be taken to fill in the credit cards form
documentoldentificacion	A	25	No	Purchaser's number of identification. This value will be taken to fill in the credit cards form.
tipoDocumentoIdentificacion	N	2	No	Client's identification type. 1. Citizenship card number. 2. Taxpayer Identification Number (Without verification number) 3. Alien Registration Number. 4. Identification Card. 5. Passport number. 6. Social Security Card number. 7. Foreign Company without Taxpayer Identification Number. 8. Trust. 9. Civil Registry. 10. Diplomatic Card. 99. Other
telefonoMovil	A	50	No	The Purchaser's cell phone number: If reported it will be used as work telephone number and home telephone number. This value will be taken to fill in the credits card form and it will be the contact telephone number.
extra1	A	255	No	Additional field to send information on the purchase. Example: extra1=telephones: 2560608 or identity codes.
extra2	Α	255	No	Additional field to send information about the purchase.
url_respuesta	A	255	No	The url for the answer page. The card holder will be sent there once his/her process in Pagosonline ¹ is finished. ¹
url_confirmacion	A	255	No	The url of Confirmation page. This page for the last user. It is used to receive data from Pagosonline ¹

Highlighted rows are mandatory for the Pagosonline system.

Nota: If you want to know other parameters which can be used, please refer to the Attachment 3.

This parameter must be sent only when the confirmation &/or answer URL is different from the one configured on the Company's administrative module. If this parameter is sent, the Pagosonline system will ignore the url configured in the administrative panel and use the sent one.



3.1.1 Calculating Return base

The return base corresponds to the value of taxed products and/or services with VAT of 16% or 10%. We present the following example for more clarity:

Item	Base	VAT	Total Amount
А	100,000	16,000	116,000
В	200,000	20,000	220,000
С	0	0	150,000
Base to Refund VAT		300,000	
VAT		36,000	
Total Amount		486,000	

Table 3.2. Example to calculate the return base VAT

Fields that must be sent to Pagosonline:

Table 3.3. Example of fields to be sent to Pagosonline

Field	Value
Amount	486,000.00
VAT	36,000.00
BaseDevolucionIva (Return base)	300,000.00



Important

If you send empty the fields *IVA* and *baseDevolucionIva* (i.e. IVA=' '), the system will automatically assume a VAT = 16%*Amount , and will calculate the corresponding return base VAT.

3.1.2 Generation of Digital Signatures

To guarantee the authenticity and integrity of the data frame received and generated by Pagosonline a group of digital signatures must be generated and compared, based on a cryptography (Hashing functions).

An encryption key is used to generate these signatures, which is known only by Pagosonline 's system and by your Company (this key can be consulted through the system administrative module given by Pagosonline). The algorithm to generate digital signatures is described below:



Delivery Chain (COMPANY \rightarrow Pagosonline):

The Company should generate this chain for each transaction with its own variables, using the next logic:

"IlaveEncripcion~usuarioId~refVenta~valor~moneda"

where the variables are replaced by their corresponding values : The amount must go in the *###*.00 format, i.e "116000.00".

Following we are presenting an example of how the Company must generate a digital signature. For this example we use the following variables:

Field	Value
LlaveEncripcion (key)	11111111111111111
usuariold	2
refVenta	Pruebas01
valor	116000.00
moneda	COP

The chain to be constructed is the following:

"111111111111111-2~Pruebas01~116000.00~COP"

Nota: The information provided before is a fictional example. The Company must replace the information in the field llaveEncripcion and usuariold with the real information provided by Pagosonline. Also, the Company must replace in each transaction the remaining fields with the real information about each payment.

In order to generate the digital signature for the transaction, the Hashing MD5 function must be applied to this chain. The digital signature must be presented as a chain in hexadecimal format. Continuing with the example, the corresponding digital signature would be the following:

"ed3f338071021e4dff83ad6bc00ccae1"

Reception chain (Pagosonline \rightarrow COMPANY):

The data frame sent by Pagosonline also includes a digital signature to guarantee the answer authenticity and integrity of the response. The signature is constructed by applying the MD5 algorithm to other chain, it is shown that is a bit different than the previous one:

"IlaveEncripcion~usuarioId~refVenta~valor~moneda~estado_pol"



Next we present an example of a chain sent based on the following data:

Field	Value
LlaveEncripcion (key)	11111111111111111
usuariold	2
RefVenta	PRUEBAS01
valor	116000.00
moneda	COP
estado_pol (if approved)	4

The generated chain would be:

"111111111111111-2~PRUEBAS01~116000.00~COP~4".

In order to compare the digital signature sent by Pagosonline, and to establish the authenticity of the received chain, remember to take the variables which come in the transaction (GET for the answer and POST for confirmation), which come in capital letters. Do not make the comparison taking data from your database (except your personal encryption key)



Important

Remember the system assumes the "COP" currency every time a transaction is sent without an specification of the "moneda" field. To avoid possible confusions or errors we recommend to always send the currency associated with the transaction.

3.1.3 Generating digital signatures with PHP

Below we present an example describing how to generate digital signatures in PHP. Please remember this information is only an example for this reason it is the Company's responsibility to send the correct parameters.



php</th <th></th>	
• •	\$llave encripcion = "111111111111111";
	\$usuariold=2;
	\$refVenta=0001;
	\$valor=116000;
	\$baseDevolucionIva=100000;
	\$iva=16000;
	\$moneda=COP;
	\$descripcion = "Pruebas de Generacion de Firmas";
	\$firma= "\$llave encripcion~\$usuarioId~\$refVenta~\$valor~\$moneda":
	\$firma_codificada = md5(\$firma):
?>	······_·······························

In this example the encryption key assigned to the Company is "11111111111111111"¹. The digital signature is generated using the user identifier "2" (Company's ID), the sale reference "0001", the value "116000" and the currency "COP". These data must be sent to the shipping page of Pagosonline, which is located at: *http://gateway.Pagosonline/apps/index.html.*

Next we present an HTML form that works linked with the previous example, this form is sending the data frame to Pagosonline

<form name="form1" method="post" action="https://gateway.Pagosonline/apps/gateway/index.html"> >Valor Usuario: <input name="usuariold" type="text" value="<?php echo(\$usuariold) ?>"> Descripción: <input name="descripcion" type="text" value="<?php echo \$descripcion ?>" > Ref. Venta: <input name="refVenta" type="text" value="<?php echo \$refVenta ?>"> Valor: <input name="valor" type="text" value="<?php echo \$valor ?>">

1 To consult the encryption key enter into the administrative module at: https://secure.Pagosonline/ and select the Tab "Options"



```
IVA:
 <input name="iva" type="text" value="<?php echo $iva ?>">
 Base Devolucion Iva:
 <input name="baseDevolucionIva" type="text" value="<?php echo $baseDevolucionIva ?>" >
 Moneda:
 <input name="moneda" type="text" value="<?php echo $moneda ?>">
 Firma:
 <input name="firma" type="text" value="<?php echo $firma_codificada ?>">
 &nbsp:
 <input name="Submit" type="submit" value="Enviar">
 </form>
```

3.1.4 Generating digital signatures with JAVA

Now we are going to present an example on how to generate digital signatures with JAVA. Please remember the information is only for example purposes and it is the Company's responsibility to send the correct parameters, as explained before.

```
<%@page import="org.apache.commons.codec.digest.DigestUtils"%>
.....
<%
String claveSecreta = "1111111111111";
int usuariold = new Integer(request.getParameter("usuariold")).intValue();
String refVenta = request.getParameter("refVenta");
double valor = new Double(request.getParameter("valor")).doubleValue();
double baseDevolucion = new Double(request.getParameter("baseDevolucion")).doubleValue();
String moneda = request.getParameter("iva")).doubleValue();
String descripcion = request.getParameter("descripcion");
String cadena = claveSecreta + "~" + usuariold + "~" + refVenta + "~" + valor + "~" + moneda;
String firma = DigestUtils.md5Hex(cadena);
%>
```





Important

The commons-codec library of Apache must be included to perform the example above [http://jakarta.apache.org/commons/codec/]

In this example the encryption key assigned to the Company is "1111111111111111"². The digital signature is generated using the user identifier (Company's ID), the sale reference, the value and the currency. These data must be sent to the shipping page of Pagosonline, which is located at: *http://gateway.Pagosonline/apps/index.html*.

Next we present the HTML form that must be sent to Pagosonline

<form <br="" method="post" name="form1">action="https://gateway.Pagosonline/apps/gateway/index.html"></form>
<pre><td< td=""></td<></pre>
$<$ th $>V_{alor}/th>^{0}$
1</td
La bycolor = #CCCCCC >
<pre>>td>cianut.nama="usuariald" type="toyt" value="<%= usuariald %>"></pre>
<u></u>
tr bacolor="#DEDE">
Ctd>Descripci& ascute:n:
Std >Bef Venta
trbacolor="#DEDEDE">
Sase Devolucion Iva:
<input <="" name="baseDevolucionIva" td="" type="text"/>
value="<%= baseDevolucion%>">
IVA:
<input name="iva" type="text" value="<%= iva %>"/>
Moneda:
<input name="moneda" type="text" value="<%= moneda %>"/>

² To consult the encryption key enter into the administrative module at: https://secure.Pagosonline/ and select the Tab "Options"



Firma: <input name="firma" type="text" value="<%= firma %>"/>
<input name="Submit" type="submit" value="Enviar"/>

3.1.5 Generating digital signatures with Visual Basic .NET

Finally we present an example on how to generate digital signatures with Visual Basic (Asp.net). Please remember the information is only for example purposes and it is the Company's responsibility to send the correct parameters, as explained above.

<%@ Page Language="VB" %> <%@ Import Namespace="System" %> <%@ Import Namespace="System.Security.Cryptography" %> <%@ Import Namespace="System.Text" %>
<pre></pre> Function getMd5Hash(ByVal input As String) As String ' Crea una nueva instancia del objeto MD5. Dim md5Hasher As MD5 = MD5.Create() ' Convierte la cadena ingresada a un array de bytes y genera el hash. Dim data As Byte() = md5Hasher.ComputeHash(Encoding.Default.GetBytes(input)) ' Create a new StringBuilder to collect the bytes and create a string. Dim abuilder As New StringBuilder() ' Loop through each byte of the hashed data and format each one as a hexadecimal string. To a data.Length - 1 Suilder.Append(data(i).ToString("x2")) Next i ' Return she ideacimal string. Return she ideacimal string. Return she ideacimal string. Return she idea.Length - 1 Suilder.ToString() End Function 'Se capturan las variables por ejemplo desde un formulario Dim caveSecreta As String = "11111111111111111111111"; Dim usuariold As Integer = request.form("suario_id") Dim refVenta As String = request.form("suario_id") Dim valor As Double = request.form("ref_venta") Dim momeda As String = request.form("momeda") Dim firma As String = "claveSecreta & "-" & usuariold & "-" & refVenta & "-" & valor & "-" & momeda" Dim firma codificada As String = getMd5Hash(firma) %>



In this example the encryption key assigned to the Company is "111111111111111"³. The digital signature is generated using the user identifier (Company's ID), the sale reference, the value and the currency. These data must be sent to the payment page of Pagosonline, which is located at: *http://gateway.Pagosonline/apps/index.html.*

A continuación se presenta el formulario HTML que es enviado a Pagosonline

```
<form name="form1" method="post"
    action="https://gateway.Pagosonline/apps/gateway/index.html">
 Campo Valor
 Usuario:
    <input name="usuariold" type="text" value="<%= request.form("usuariold") %>">
 Descripci&oacute:n:
    <input name="descripcion" type="text" value="<%= request.form("descripcion")%>">
 Ref. Venta:
    <input name="refVenta" type="text" value="<%= request.form("refVenta") %>">
 Valor:
    <input name="valor" type="text" value="<%= request.form("valor") %>">
 Valor:
    <input name="baseDevolucionIva" type="text"
    value="<%=request.form("baseDevolucionIva") %>">
 IVA:
    <input name="iva" type="text" value="<%= request.form("iva") %>">
 Moneda:
    <input name="moneda" type="text" value="<%= request.form("moneda") %>">
 Firma:
    <input name="firma" type="text" value="<%= request.form("firma") %>">
  
    <input name="Submit" type="submit" value="Enviar">
    </form>
```

³ To consult the encryption key enter into the administrative module at: https://secure.Pagosonline/ and select the Tab "Options"



| Chapter 4: THE ANSWER PAGE

The answer page is hosted in your system and should show the information of the purchase and the transaction status, it is called once the transaction is finished in Pagosonline. This page is only meant to inform due to the Internet nature, it is impossible to guarantee that the answer page is called after all transactions; the purchasers can close the Internet browser before the Answer Page appears, or they can have a temporary communication problem. Therefore, we do not recommend to make any transactional operation in this page; this kind of operations must be performed using the Confirmation Page.

Note: See Figure 2.1: Flow of a transaction, Figure 2.1.

Next you will find the fields sent to the answer page, through GET method, detailing the field, type (N: number, A: text) and the maximum length.

Field	Туре.	Size	Description
usuariold	N	12	The user number in the Pagosonline system. Such number will be found in the confirmation mail when the account was created
estado_pol	N	2	The general status of a transaction in the system: See table in the attachment 4 for different statuses.
riesgo	N	12	Risk associated to the transaction. It takes a value between 0 and 1. The greater the risk the greater the value. It comes in the ###.00 format.
codigo_respuesta_pol	N	2	The Pagosonline answer code, it specifies the status of a transaction. See table in the attachment 5 with answer codes.
refVenta	A	50	Our system sends back the sale or order reference sent by your system.
ref_pol	N	12	The transaction reference generated by Pagosonline
firma	A	32	The digital signature using the Md5 algorithm; this signature should be compared with one generated by your system to . See section 3.1.2 generation of digital signatures
extra1	Α	255	Our system sends back the value of extra1 sent by your system.
extra2	Α	255	Our system sends back the value of extra2 sent by your system.
mensaje	Α	255	Description of the transaction status
medio_pago	N	2	Code that says the specific form of payment used in the transaction. See Table in the Attachment 7 to consult information on available forms of payments.
tipo_medio_pago	N	2	Code that says the general form of payment used in the transaction. See Table in the Attachment 6 for the available types of forms of payment.
cuotas	Ν	2	Number of installments for payments using credit card.
valor	N	14,2	Our system sends back the total value of the transaction sent by your system using the format ###.00.

Table 4.1. Parameters sent to the Answer Page

valorPesos	Ν	14,2	Value of the transaction in Colombian pesos (COP) using the format ###.00
iva	Ν	14,2	Our system sends back the VAT value of the transaction sent by your system using the format ###.00.
valorAdicional	Ν	14,2	Our system sends back the additional value of the transaction sent by your system using the format ###.00.
moneda	Ν	14,2	The system sends back the currency used in the transaction. See allowed currencies in the Attachment No. 1
cus	Ν	15	CUS, Tracking unique code (spanish abbrevation). It is the bank reference, it applies only for PSE payments. Required for PSE certification on ACH Colombia.
banco_pse	Ν	15	Brand of bank. It applies only for PSE payments. Required for PSE certification on ACH Colombia.
idioma	Ν	2	The language used in the payment bridge. See languages allowed in the Attachment No. 2
emailComprador	А	255	Our system sends back the email of the customer sent by your system.

4.1 PHP example: how to capture variables from the answer URL

Please remember this information is only an example for this reason it is the Company's responsibility to send the correct parameters.

In this case we'll show the payment Reference (ref_pol):

—Código de</td <td>e respuesta del comercio></td> <td></td>	e respuesta del comercio>	
	Referencia del pago: php echo \$_GET['ref_pol']; ?	



4.2 JAVA example: how to capture variables from the answer URL

Referencia del pago: <% out.println(request.getParameter("ref_pol")); %>

4.3 ASP.NET example: how to capture variables from the answer URL



So depending on the data you would like to show to your customer, you should modify this page. If you want to use Colombian Banks (ACH) you have to read the 9 chapter to know what information is mandatory.



Important

If you wish, you can select the answer page to be a standard page of Pagosonline. If so, setup the answer page or send the url_respuesta in the shipping page as your web site index on the administrative panel (i.e. http://www.mywebsite.com/index.html) and contact our technical support area.



Important

To download examples and tutorials please visit our help site at:

http://ayuda.Pagosonline/ayuda/descargas.html



| Chapter 5. CONFIRMATION PAGE

Once Pagosonline system receives the confirmation from the financial entity of the transaction and then it calls your Confirmation Page. The confirmation page establishes a direct communication between the Pagosonline transactional system and your website therefore no information will be shown in this page to anybody. As it was explain in the previous chapter the answer page is the one that visualize The information about the result of the transaction is shown using the Answer Page, which is different an independent from the Confirmation Page.

The purpose for the confirmation page is to inform the Company about the existence of a transaction in Pagosonline, so that it can begin the corresponding logistic processes⁴. The Company's confirmation page is called through a HTTP POST petition.

Next we present the parameters sent to the confirmation page, giving details on the type of field (N: number. A: Text), the maximum length and if it is s required field or not.

Field	Туре.	Size.	Description
usuariold	N	12	The user number in the Pagosonline system. Such number will be found in the confirmation mail when the account was created
estado_pol	N	2	The general status of a transaction in the system: See table in the attachment 4 for different statuses.
riesgo	N	12	Risk associated to the transaction. It takes a value between 0 and 1. The greater the risk the greater the value. It comes in the ###.00 format.
codigo_respuesta_pol	N	2	The Pagosonline answer code, it specifies the status of a transaction. See table in the attachment 5 with answer codes.
refVenta	A	50	Our system sends back the sale or order reference sent by your system.
ref_pol	Ν	12	The transaction reference generated by Pagosonline
firma	A	32	The digital signature using the Md5 algorithm; this signature should be compared with one generated by your system to . See section 3.1.2 generation of digital signatures

Table 5.1. Parameters sent to the confirmation page

⁴ We recommend you to stablish a process for the approved and rejected transactions. Clients with greater sales volume have an automatic tracking system which controls inventory, dispatch, and other functions related with client managment



extra1	Α	255	Our system sends back the value of extra1 sent by your system.
extra2	Α	255	Our system sends back the value of extra2 sent by your system.
medio_pago	N	2	Code that says the specific form of payment used in the transaction. See Table in the Attachment 7 to consult information on available forms of payments.
tipo_medio_pago	N	2	Code that says the general form of payment used in the transaction. See Table in the Attachment 6 for the available types of forms of payment.
cuotas	N	2	Number of installments for payments using credit card.
valor	N	14,2	Our system sends back the total value of the transaction sent by your system using the format ###.00.
iva	N	14,2	Our system sends back the VAT value of the transaction sent by your system using the format ###.00.
valorAdicional	N	14,2	Our system sends back the additional value of the transaction sent by your system using the format ###.00.
moneda	N	14,2	Our system sends back the currency used in the transaction. See allowed currencies in the Attachment No. 1
fecha_transaccion	A	20	It is the date when the transaction was performed in the format yyy-mmm-ddd, HH:mm:ss. For instance: 2005-07-29 15:15:43
codigo_autorizacion	Α	6	This code is only sent when the transaction is approved.
cus	N	15	CUS, Tracking unique code (spanish abbrevation). It is the bank reference, it applies only for PSE payments. Required for PSE certification on ACH Colombia.
banco_pse	N	15	Brand of bank. It applies only for PSE payments. Required for PSE certification on ACH Colombia.
emailComprador	Α	255	Our system sends back the email of the customer sent by your system.

Note: In order to validate data authenticity and integrity, we recommend to validate the transaction's digital signature as explained in the numeral 3.1.2.



Important

Due security policies of Pagosonline for you to receive information on the confirmation page, you must enable the port 80. Besides, if you install the confirmation page in a https safe server, you must have a valid certificate of security. Otherwise, the system will not be able to call the confirmation page.



5.1 PHP example: how to capture variables from the confirmation URL

Please remember this information is only an example for this reason it is the Company's responsibility to handle the necessary variables.

>	Referencia del pago: php echo \$_POST['ref_pol']; ?	

5.2. JAVA example: how to capture variables from the confirmation URL

Referencia del pago: <% out.println(request.getParameter("ref_pol")); %></</td>

5.3 ASP.NET example: how to capture variables from the confirmation URL

—Código de</td <td>e respuesta del comercio></td> <td></td>	e respuesta del comercio>	
	Referencia del pago:	
	<% =Request.Form("ref_pol") %>	
	· · · · · · · · · · · · · · · · · · ·	



| Chapter 6: MOST FREQUENT ERRORS

Table 6.1. Error codes which can occur during the payment process.

Error	Description	Posible solution
NO.		
-7	The payment request already appears as paid in the system	Verify that the sale reference (refVenta) has not been used before: Remember the sale reference is a unique field
-116	The transaction amount exceeds limits established by the bank, please the final customer has to contact his bank.	The purchaser has to contact his bank to increment the amount for a single transaction.
-113	Error when validating digital signature. Please verify that the signature being generated by the digital signature is correct.	Review the Chapter 3.1.2 to verify the correct generation of such variable. Verify that the encryption key matches with the one in the administrative module. Verify you are sending data as indicated in the Chapter 3.1.
-122	The amount is less than the minimum amount allowed	The minimum amount per transaction for Pagosonline is \$3,500 Colombian pesos
-143	The amount of the return base (of the VAT) is not valid; please verify that the field is not empty or if it does not correspond to the indicated amount.	Remember the return base depends on VAT; if there is not VAT there is not return base. Negative amounts cannot be sent.
-161	The VAT amount is not valid; it is higher than the expected.	Verify that the value of return base plus VAT is not higher than the total amount of the transaction
-175	The amount is higher that the maximum amount allowed; if you want to increase your current allowed amount please contact the transactions area.	Trade has to request through e-mail or by telephone the increase of the monthly amount for transactions, if necessary
-2010	Data to create a transaction are not valid or they are insufficient.	Verify that all mandatory fields are correctly sent
-1003	Rejected transaction; please contact the transactions area for more information	Your IP is not validated by the anti-fraud module to make tests. Please contact the support area to enable your IP.

Note: If your error is not shown here, visit our forums: http://foros.Pagosonline/



| Chapter 7: TRAVEL AGENCIES MODULES

The system has a special module for Travel Agencies, which allows to collect administrative fees and air ticket in only one payment, sending the amount of the administrative fees to the travel agency and the amount of air ticket to the airline. To use this module the Travel Agency must send the VISA code or the Airline IATA code, as well as the amount of the administrative fee, the administrative fee VAT and the return base of the VAT.

This module uses the answer and confirmation pages in the same way than the previous one (see chapters 4 and 5). In case the fields corresponding to the administrative fees are not filled in, the system will process the transaction in an ordinary manner depositing all the money directly to the travel agency account.



Important

Due to technical reasons, is possible that the transaction to pay the air ticket is approved, and the transaction to pay the administrative fee is rejected. When this happens, the system sends the answer code 24 (codigo_respuesta_pol), transaction partially approved. It is your responsibility to process again the corresponding transaction for the administrative fees.

The travel agencies module is available only for payments with VISA, AMEX, and DINERS Credit Cards. It is not yet available for payments with MASTERCARD Credit Cards due to technical restrictions alien to Pagosonline.

The "tasa aeroportuaria" or tax airport must be sent in the valorAdicional field and it does not have to be added to the transaction so that the financial entity does not charge commission over this amount.

This is the example how fields are sent having the total amount of 109620, total administrative fees of 21231 and tax airpot of 11300:

Field	Value
valor	109620.00
baseDevolucionIva	94500.00
iva	15120.00
valorAdicional	11300.00
tarifaAdministrativa	21231.00
ivaTarifaAdministrativa	2928.00
baseDevolucionTarifaAdministrativa	18303.00



| Chapter 8. TESTING

Pagosonline provides a testing method in a testing server (production server clone), which allows the Company to make tests with fictitious credit cards and simulated payments on the PSE system.

8.1 Tests with Credit Cards.

Next we describe the procedures to make tests in the system:

1. In order to use the test environment your system must send a payment request (within the shipping page See section 3.1) with the test variable set to "1" and the action parameter in the form tag has to be modified in this way:

<form method="post" action="https://gateway2.Pagosonline/apps/gateway/index.html">

- 2. Once you are in Pagosonline platform you could choose one of the credit card franchise.
- 3. Now you could fill out the whole form with any value except the credit card field. You will find the possible values for this field with their respective result in the next table:

Credit Card number	Answer: respuesta_estado_pol
99555555555555501	Approved
9955555555555504	Rejected
995555555555555555555555555555555555555	Under Validation Process

For instance: To simulate an approved transaction write the following 16 digits credit card number: 990000000000001. The first two (2) digits (99) indicate this is a testing credit card number. The last two (2) digits in the credit card (01) correspond to the answer code for an approved transaction. Intermediate digits are irrelevant; you can use any combination of numbers. If you wish to generate another answer status, refer to the Attachment No. 5.

Using a MasterCard is necessary to send a verification code; use the following number as a valid verification code: '*123*'. This process will act as a real transaction.





Important

Only make tests with debit cards, savings accounts or current accounts if the form action sends data to the following url:

https://gateway2.Pagosonline/apps/gateway/index.html

8.2 Testing using PSE (Current and savings accounts)

The information flow with debit card is similar to credit card's flow, the main difference is the moment when the customer is redirected by PSE system to the bank's website where they should enter their user and password account. At the end of this process, the customer is redirected to the answer page. If you wish to make tests with debit cards, please contact the support area.

Note: The PSE system is available for testing only from 8:00 am until 8:00 pm from Monday to Friday (testing environment)

Pagosonline has a testing system for PSE, which is similar to the credit cards system. Using this testing environment is possible to generate several answer codes using this method of payment. To make tests you must choose the PSE method of payment in the gateway of payments of Pagosonline. A list of banks will be displayed for you; select the bank: BANCO WEB SERVICE ACH as indicated in the graphic below.



Figure 8.1



After selecting the indicated bank the system will redirect you to another page where you must enter the following data:

Account Agency:	1234
Account Number:	1234
Password:	123456

As indicated in the image below

VAT Amount:	344827.00	
Entity Code:	8301097238	
Entity Name:	Pagosonline.net S.A.	
Financial Institution Code:	1021	
Payment Description:	prueba	
Account Agency:	1234	
Account Number	1234	
Password:	•••••	
Call ConfirmTransactionPayment		
Pay	Cancel	

The operation result will be "approved".

To obtain the Rejected status we select the Bank Web Service ACH again as in the figure 8.1. When arriving to the PSE form (Fig. 8.2) we click on Cancel and in the following screen enter 00001 as shown in the image below:

çë PSC	Wellcome to PSE Sample FE!
Not A	Authorized Transaction
Error Code:	00001
	ОК

Figure 8.3

Figure 8.2



Likewise, we can simulate other results:

Bank to select	Data to enter in the PSE form	Result of the operation
Banco Web Service ACH	AA: 1234 AN: 1234 P: 123456	Approved
Banco Web Service ACH	Botón Cancel. Luego en el campo <i>Error</i> <i>Code</i> colocar: 00001	Rejected
Banco Unión Colombiano	AA: 1234 AN: 1234 P: 123456	Failed
Banco Tequendama	AA: 1234 AN: 794613 P: -	Standby

- AA:
- Account Agency Account Number AN:
- P: Password



| Chapter 9: PSE CERTIFICATION

ACH Colombia is an Authorized Compensation Association that allows to make transactions among different Financial entities, using debit cards and transactions from Colombian current accounts. PSE (in spanish Electronic Services Provider) is the system created by ACH, therefore the purchase process has to be certified by this company.

Use this **States table**, to show in the answer page the status of the transaction:

variable	estado_pol	cod_respuesta _pol	estado a mostrar	Tipo de estado
traslation	pol state	Asnwer code pol	State to show	Type of state
Aprobed transaction	4	1	Transacción aprobada	final
Failed transaction	6	5	Fallido.	final
Rejected transaction	6	4	Transacción Rechazada	final
Unresolved. Please check if the debit was made in the bank.	12	9994	Pendiente, Por favor revisar si el débito fue realizado en el Banco	Intermediate
Transaction on validation process	7	15	En proceso de validación	Intermediate

These are the main requests that your website and the buying process have to fulfill:

- 1. Show thousand format for quantities during all the payment process. (i.e.: 110,000.00)
- 2. If your answer page is on your website, this information has to be shown:



Traslation	Label	Variable
Company name	Nombre	-
Company Identification	NIT	-
Transaction date	Fecha	fecha_procesamiento
Transaction state	Estado de la transacción	In general Mensaje and values according to previous table using codigo_respuesta_pol and estado_pol)
Transaction Reference	Referencia de la transacción	ref_venta
Unique tracking code	CUS	cus
Bank	Banco	banco_pse
Transaction Value	Valor en pesos colombianos	ValorPesos
Description	Descripción	Obtained from your data base

Besides, you have to include the company phone number in case some costumer has a question about his/her purchase. And a button to print the page. In the whole website, there has to be a logo of your company.

Note: If you have any other payment method, print the message variable (mensaje) in the transaction state (estado).

- 3. In case you use pop up windows, they can not change information about his parent window and they have to show the company logo. You must not load the pagosonline.net gateway in a window different to the main of your website. (Not in the Pop up or in Iframe)
- 4. The description sent to the gateway has to be clear and related to the purchase and it has to be the same than the one in the answer page. It can not be longer than 80 characters. For example: "Compra in MyStore"



Figure 9.1 Response page example

El pago seguro en Inte	rnet V	- Línea gratuita e-mail:	Teléfono: (57 1) 7563126 nacional: 018000 113126 info@paqosonline.net. Bogotá - Colombia
1 Transacción aprobad	A continuación a	Apreciado Usuario: aparecen los datos de la transacción.	1
	Empresa:	PagosOnline.net S.A.	
	NIT:	830109723-8	
	Fecha:	06/08/2009	
	Estado:	Aprobado	
	Referencia del pedido:	2009-08-06 16:27:34	Estamos en Linea.
	Referencia de la transacción:	2466977	Live chat by LivePerson
	CUS:	264086	
	Banco:	Banco Web Service ACH	
	Valor:	\$ 10,000.00	
	Moneda:	COP	
	Descripción:	Compra de prueba	
	Para vol (Para imprimi	ver a la pagina haga clic <u>aquí</u> r este comprobante haga clic <u>aquí)</u>	
		TESTED 06-AUG	
🚺 Al hacer click usted	está aceptando nuestro	s <u>Términos y condiciones.</u>	

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- 5. The pagosonline.net gateway html has to be personalized with the commerce look & feel, please contact your technical support engineer for this purpose.
- 6. You have to send the costumer email (*emailComprador*) or identification (*documentoldentificacion*). If the website use a different logo than your company image, you have to send to ACH a document that supports the relation between this logo and your company.
- **7.** The pagosonline.net gateway can not be loaded in a new page (_blank) or inside an lframe (internal frame).
- 8. If exists a consultation mechanism with the transactions and purchasing record, the state of the transaction in it has to match up with the state from the response page (except when the transaction is not Pending anymore). Besides this mechanism has to fulfill these requirements:



- I. Every time a customer goes to pagosonline.net gateway, mark the transaction state as open (abierta) in your database. The transactions with this state should not be listed in the mechanism.
- II. Use the response page to update your data base using the signature validation. In the consultation mechanism the state has to be the same shown in the response page, however for Approved transactions, use the confirmation page.
- III. If is there any Pending transaction and the customer tries to make a new buy:
 - a) If your website offers a service or virtual product you have to block the transaction, and warn him about the pending transaction. A message like: "usted tiene una transacción pendiente, verifique si el débito ya se ha realizado en la página del banco" (you have a pending transaction, verify if the debit is done in the bank web page) is very suitable.
 - b) If your website offers tangible products only with the warning is enough, the customer may continue his buying process.
- IV. The consultant mechanism has to show at least these parameters:

	Referencia de venta	Fecha	CUS	Banco	Valor	Estado
traslation	Order reference	Date	CUS	Bank	Value	State
	XXXXX	Same as response page	6 digits	The PSE bank	Number with thousand separator	Same as response page

Transactions with Credit Card, the bank and CUS don't apply.

9. If you want to show informative texts don't mention the term "Debit card" this is not valid for PSE system. Use in example: "Usted puede hacer su pago con cuenta corriente o de ahorros a través de PSE" (You can pay with your current or saving account through PSE)



10. The PSE logo has to appear when the means of payment are shown:



Also a message:

Esta a punto de realizar un pago seguro en internet, en una pagina HTTPS que encriptará su información personal. Le recomendamos utilizar un computador de su entera confianza.

You are about to make a secure payment on internet in a HTTPS web page that will encrypt your personal information. We recommend you to use a computer that you trust.

Note: Transactions made through PSE system obviously won't return data related to credit cards transactions, i.e. tarjeta_habiente (card holder)



| ANNEXES

1. Allowed Currencies

The following currencies are supported by Pagosonline and they correspond to the currencies shown in the payment information. The reconciliation process is carried out based on Colombian pesos at the representative exchange rate, on the date of the transaction; the ISO code will be send in the "moneda" parameter in the shipping page.

 Table A.1 Currencies supported by Pagosonline and ISO codes corresponding to currencies for transactions.

ISO-4217 code	Currency
СОР	Colombian pesos
EUR	Euros
GBP	Great Britain Pounds
MXN	Pesos Mexicanos
USD	U.S. Dolar
VEB	Bolívares Fuertes

2. Allowed Languages

The following languages are supported by Pagosonline to be sent by the shipping page:

 ISO-639 code
 Language

 fr
 French

 en
 English

 es
 Spanish

 it
 Italian

Table A.2 supported Languages and corresponding ISO-639 codes



3. Additional Parameters for the shipping Page

The following additional parameters are allowed by the Pagosonline system

Table A.3.1 additional parameters in the payment page.

|--|

tiposMediosDePago	N	2	No	It specifies Code(s) to activate different means of payment so your clients would be able to pay; by default all of them are active. Example: tiposMediosDePago=2,8; if you send more than one code separate them with comas: See means of payment types in the Attachment No. 6
plantilla	A	255	No	It allows the user to specify a customized Html mask, which had to be previously registered in the system taking the Look and Feel service, contact technical support for this process
codigo_pse	A	50	No	If you have more than a service code created in the PSE platform and you wish to specify which to use. Applies only to entrepreneurial or corporate plan.
direccionCobro	A	255	No	Mailing address (This data is pre-filled out within the credit card information form)
ciudadCobro	A	25	No	Mail City (This data is pre-filled out within the credit card information form)
direccionEnvio	A	255	No	Address where goods have to be delivered. (This data is pre-filled out within the credit card information form)
ciudadEnvio	A	25	No	City where goods have to be delivered (This data is pre- filled out within the credit card information form)
paisEnvio	A	2	No	ISO 3166 code of the country where goods have to be delivered. (This data is pre-filled out within the credit card information form)
Telefono	A	50	No	The home purchaser's telephone number (This data is pre-filled out within the credit card information form)
telefonoOficina	A	50	No	The purchaser's office number (This data is pre-filled out within the credit card information form)
numeroCliente	A	50	No	The client's number in the trade information system (This data is pre-filled out within the credit card information form)



Table A.3.2 additional parameters in the payment page for travel agency module.

Field	Туре.	Size.	Req.	Description
			<u>.</u>	
aerolinea	N	2	Si	Airline Code
tarifaAdministrativa	Ν	12	Si	Amount of Administrative fee, including VAT.
IvaTarifaAdministrativa	Α	50	Si	VAT value of the administrative fee.
baseDevolucionTarifaAdminis trativa	A	12	No	Amount of the base to return base of the administrative tariff.

Note: Please consult the commercial advisor for more information on how to work with the travel agencies module.

4. Possible transactions status (estado_pol)

The following status codes are used by Pagosonline to describe the transaction's current status.

Table A.4 Transaction's status

Code	Description
1	Not yet open
2	Open
4	Paid and credited
5	Cancelled
6	Rejected
7	Under validation
8	Reversed
9	Fraudulent. Reversed
10	Sent to the financial entity
11	Capturing credit card data
12	Waiting for PSE system confirmation
13	Active Debits ACH
14	Confirming Efecty Payment
15	Printed
16	Registered credit ACH



5. Answer Codes (codigo_respuesta_pol)

The following answer codes provide details on a transaction status.

Table A.5 Answer Codes

Answer Code	Descripiion			
1	Approved Transaction			
2	Payment canceled by the user			
3	Payment canceled by the user during validation			
4	Transaction rejected by the entity			
5	Transaction declined by the entity			
6	Insufficient funds			
7	Invalid card			
8	Consult your entity			
9	Expired card			
10	Restricted card			
11	POL discretionary			
12	Invalid expiration date or seg. Field			
13	Repeat transaction			
14	Invalid transaction			
15	Transaction under validation process			
16	Invalid combination user-password			
17	Amount exceeds maximum amount allowed by the entity			
18	Invalid identification document			
19	Transaction abandoned when capturing TC data			
20	Abandoned transaction			
21	Impossible to reverse transaction			
22	Non authorized card to make purchases on Internet			
23	Rejected transaction			
24	Partial transaction approved			
25	Rejected by missing confirmation			
26	Waiting for response from the bank.			
9994	Transaction pending to confirm			
9995	Digital certificate not found			
9996	Entity does not answer			
9997	Messaging error with the financial entity			

9998	Error in the financial entity
9999	Non specified error

6. Means of Payment (tiposMediosDePago, tipo_medio_pago)

The following types of methods of payment allow you to identify the active mean of payment.

Table A.6 Types of Payment Methods

Types of Payment Method	Description
0	
2	Credit Cards
3	Verified by VISA
4	PSE (current/savings accounts)
5	ACH Debit
7	Payment in cash (Efecty)
8	Referenced payment

7. Payment Methods (medio_pago)

The following codes represent the payment method with which the transaction was made.

Table A.7 Payment Method

Payment method	Description
10	VISA
11	MASTERCARD
12	AMEX
22	DINERS
24	Verified by VISA
25	PSE
27	VISA Debito
30	Efecty



3. Additional Parameters sent to the confirmation Page

The following parameters are sent to your confirmation page of your system, as well:

Field	Туре.	Size	Description.
tasa_cambio	N	10,2	It is the exchange rate in the moment of the transaction, for example if you paid USD 10 you will receive 20152,5 (colombian pesos)
lp	A	15	It is the IP of the purchaser's computer
pago_recurrente	N	1	If the payment is a recurring payment, you will receive this variable with value "1". Please contact the technical team for more information about this method of payment
numero_visible	A	16	We send 10 out of 16 numbers of the credit card.
tarjeta_habiente	A	50	You will receive the name of the owner, or Card Holder, of the credit card, this variable is only sent when the payment was made via credit card.
franquicia	A	10	The name of the franchise when a credit card was used to make the transaction.



| GLOSSARY

- ASP.NET: It is a framework for web applications, which was developed and marketed by Microsoft. It is used by programmers to construct dynamic websites, web applications and XML web services. It appeared in January 2002, with the version 1.0 of .NET Framework and it is the successor technology of the Active Server Pages (ASP). ASP.NET is constructed on the Common Language Runtime, allowing programmers to write the ASP:NET code using any language allowed by the .NET Framework.
- *POST* & *GET methods:* They are methods to send information in HTML forms. Both POST & GET methods make transactions through the HTTP protocol, The difference is that the first one send hidden parameters and the second one shows them on the navigation bar.
- *PSE*: (Acronym in Spanish) Electronic Services Supplier; it is an ACH Colombia SA service to make non present electronic payments..
- *VAT*: Added Value Tax. Vat is an indirect tax on consumption (excise tax), and it varies depending on the country, product or service. In Colombia it is normally 16%.
- *Encryption*: It is a process to convert information to a coded format, generally through a mathematical process. There are two general encryption levels, although there others, in 40 and 128 bits browsers. The most common browsers are the 40 bits browsers. Encryption of 128 bits are also available in the most common browsers and it is safer.
- PHP: It is an acronym which means Hypertext Pre-processor (Initially PHP Tools or Personal Home Page Tools) It is an interpreted programming language originally designed to create dynamic websites. It is used mainly to interpret the server side (server-side scripting).
- JAVA: It is a programming language oriented to objects which was developed by Sun Microsystems in the early 90s. The language itself takes most of syntax from C and C++ but it has a simpler model of objects and it eliminates low level tools, which lead to errors, such as the direct manipulation of pointers or memory.