

SKYPAY

INTERFACE SPECIFICATION v2.0.2



Contents

Introduction

The SKYPAY Internet payment gateway is a multi currency, card processing facility that gives credit card services to any web server in the world. Whilst being exceptionally easy to integrate into existing web sites, it is flexible and robust, normally returning authorisations within 6 seconds.

You can easily test the SKYPAY Internet payment gateway from within your own web site using our test account to establish the simplicity of integration – we even provide you with test card numbers to use for different transaction type testing.

Before you begin, you should be familiar with the use of HTML forms. Knowledge of scripting languages (PHP, ASP etc) would also be useful so that you can give more descriptive responses back to your customers when their card doesn't validate correctly – we return codes back to your web page for you to interpret accordingly – although our codes are suitably descriptive that you can just show the return code and the user should know what is wrong.

A brief overview of the SKYPAY system can be described as:

A web based form containing all relevant shopping cart information is submitted to SKYPAY. If the transaction is successful, a specific web page is shown explaining to the customer that they have been successful with their order. If the transaction failed, they will be shown another web page with information passed through to the page to explain what the problem was. The user can then press Back and resubmit their form once they have fixed the problem.

As you can see, we link to the top name merchant providers, so you can be up and running very quickly.



Your Shopping Cart Checkout Page

To start with, you will need a page to collect your customer's card details and send them on to our payment gateway.

We suggest the use of some kind of development environment such as Macromedia Dreamweaver or Microsoft FrontPage for the development of the forms, although any of the forms can be developed using something as simple as Notepad. We have some basic forms prepared for you on our website.

The data entry form will be submitted to our secure authorisation server when the user presses a submit button on the form.

```
<FORM METHOD="POST"
ACTION="https://secure.skypay.co.uk/authorise/secure_auth.php">
<!-- Insert form fields and other HTML code here -->
</FORM>
```

As you should already be aware, web forms can have both visible and invisible elements on the form. Visible elements, such as text boxes, radio boxes etc, are there for the user to interact with whereas invisible (hidden) items appear as part of the source code for the page but are not visible on screen.

SKYPAY requires a certain amount of information as visible information – i.e. boxes that the customer can fill in

The following form fields need to be visible for the user to specify them:

Form element name	Description	Required	Size	Type
CardNumber	Payment card number, spaces are ok	YES	20	N
Issue	For Switch Cards	Where Applic	2	N
ExpiryMonth	Expiry Month 01 – 12	YES	2	N
ExpiryYear	Expiry Year 01 – 99	YES	2	N
StartMonth	Start Month 01 – 12	NO	2	N
StartYear	Start Year 01 – 99	NO	2	N
CardType	VM= Visa/MC, S = Switch	YES	2	A
Name	Name on Card (cardholder)	YES	50	A
Address	Address of cardholder	NO	200	A
Postcode	Postcode of cardholder	NO	15	A
Telephone	Tel No of person ordering	NO	30	A
Email	Email address of cardholder	NO	50	A

Skypay supports the new banking system AVS-CV2 checking system. The initials stand for Address Verification Service – Card Verification Value and it is a two pronged attack to help prevent the fraudulent use of credit cards in a Card Holder Not Present transaction.

Address Verification will examine key points of the entered address and match them with the address stored for the owner of the credit card. The Card Verification Value is a 3 or 4 digit code usually ink printed on the signature strip of the card so that it is not picked up in the embossed writing. The CV2 code should only be known by the person if they are in

possession of the card (rather than a stranger having picked up a till receipt who gets to see the embossed writing including the card number and the expiry date).

AVSCV2 will only be checked if you pass the AVSCV2Check parameter into the authorisation process (value should be set to YES). By not providing the CV2, it will not be checked, so if you wish to activate AVS only, then do not prompt the user for the CV2. The use of Javascript or other code should check that it has been provided if you want to check for it.

The following form fields should ideally be hidden:

Form element name	Description	Required	Size	Type
Amount	Amount to be authorized. Must be in <u>minor</u> currency with no decimal points *	YES	10	N
MerchantNo	SKYPAY merchant ID	YES	8	N
AuthOK	Web address (URL) to go to on successful transaction	NO		URL
AuthNotOK	URL to go to on a failed transaction	NO		URL
EmailMerchant	Should SKYPAY send an email to you, the supplier ("YES" or "NO")	NO	3	A
EmailCustomer	Should SKYPAY send an email to the customer ("YES" or "NO")	NO	3	A
EmailCustomerTitle	Subject line of customer email	NO	100	A
EmailCustomerText	The message content that is sent to the customer	NO	N/A	A
Order	Order detail (description)	YES		A
AuthOKCode	Extra URL to run after authorisation	NO		URL
Dispatch	Take the money NOW or LATER **	NO	5	A
CheckoutID	A CheckoutID can replace most of the above parameters. Checkouts are created on our website	NO		A
CurrencyCode	A 3 digit numeric code, defaulting to pound sterling if not supplied. Currency Codes are dependant on your merchant services provider agreement	NO (defaults to 826 for GBP)	3	N
CountryCode	A 3 digit numeric code, identifying which country the buyer is coming from	NO (defaults to 826 for GB)	3	N
AVSCV2Check	Valid values are YES or NO to determine if Address Verification and Card Verification should be performed	NO	3	A

*** The amount should be in the minor currency (i.e. pence) so £245.62 needs to be submitted as Amount=24562**

Usually the amount will have been calculated by a previous screen and the Amount will be hidden, but if they are paying an amount on account for example, where they chose the amount to pay, using Javascript, you can accept a pounds value and multiply the entered value by 100 as part of the submission process.

```
<form action="https://secure.skypay.co.uk/authorise/secure_auth.php" method="post"
onsubmit="return Form_Validator(this)">
```

```
....
Rest of form
```

```
.....
```

```
</form>
```

```
<script Language="JavaScript">
<!--
function Form_Validator(theForm)
{
    theForm.Amount.value=parseFloat(theForm.Amount.value) * 100;
    return (true);
}
//-->
</script>
```

Or alternatively, you can arrange for the pages that call your "checkout form" to pass in a pence value but just divide it by 100 to show the pounds value on screen to inform the user. Please note that NO DECIMAL POINTS are allowed in the Amount value so if you calculate the Amount by adding VAT for example, and the Amount comes to £125.756 in actual figures, then this value multiplied by 100 would be 12575.6 which will be rejected by the system as an invalid amount. You will need to round the figure before submitting it.

**** Dispatch functionality.** Normally payment requests would be authorised and then automatically passed for payment immediately, however, you can use the Dispatch option to set it to LATER rather than the default of NOW. This will authorise the amount (i.e confirm that the money is available to take and confirm that the payment card is available and valid) but won't pass the request for payment. LATER dispatch transactions remain authorised by the bank for 72 hours from point of transaction, but to protect you from potential loss of money if the card is reported stolen between authorising and taking the money, we automatically re-authorise the transaction when you come to process the transaction later. You would then use the SkyPay control panel to take the funds from their account at a later point in time. Because we reauthorize anyway, you don't need to take the money within 3 days – it can be taken up to 6 months in the future, but because all card details are stored securely in the system, you don't need to ask the customer for card details when you come to take the money later on. This is ideal if you want to build your system to just confirm card details are valid on your website and then take the money a few days later when you have the goods available for dispatch. Because a LATER transaction isn't passed for payment, it doesn't appear on the customers credit card statement, so if you are unsure what the total bill will be (i.e. a hotel payment system), you can put through a £1 LATER transaction to confirm card details are correct and valid, and then put the actual request for payment of the agreed amount later on. The LATER dispatch WILL have an effect on the customers available card balance, so putting a £1000 LATER transaction may prevent them from further purchases until the bank releases the initial authorization after 3 days

Example order form

```

<html>
<head>
<title>Payment Form</title>
</head>
<body>
<form method=post action=https://secure.skypay.co.uk/authorise/secure_auth.php>
Please enter your payment below :
<br><br>
<table>
<tr><td>Name</td><td><input type=text size=50 name=Name></td></tr>
<tr><td>Address</td><td><input type=text size=50 name=Address></td></tr>
<tr><td>Postcode</td><td><input type=text size=50 name=Postcode></td></tr>
<tr><td>Telephone</td><td><input type=text size=50 name=Telephone></td></tr>
<tr><td>Email</td><td><input type=text size=50 name=Email></td></tr>
<tr><td>Order</td><td><input type=text size=50 name=Order></td></tr>
<tr><td>Amount</td><td><input type=text size=50 name=Amount></td></tr>

<input type=hidden name=MerchantNo value=1>
<input type=hidden name=AuthOK value=https://www.skypay.co.uk/thanks.html>
<input type=hidden name=AuthNotOK value=https://www.skypay.co.uk/sorry.html>
<input type=hidden name=EmailMerchant value=yes>
<input type=hidden name=EmailCustomer value=yes>
<input type=hidden name=EmailCustomerTitle value='Thank you for the order'>
<input type=hidden name=EmailCustomerText value='We will process your order and inform
you of its progress ASAP'>

<b>Credit Card Details</b><br><br>

<tr></tr>
<tr><td>Card Number</td><td><INPUT TYPE='text' NAME='CardNumber'></td></tr>
<tr><td>Issue Number</td><td><INPUT
TYPE='text' NAME='Issue' SIZE='3' MAXLENGTH='2'></td></tr>
<tr><td>Expiry Date</td><td>
<select name=ExpiryMonth>
<option value=1>Jan</option>
<option value=2>Feb</option>
<option value=3>Mar</option>
<option value=4>Apr</option>
<option value=5>May</option>
<option value=6>Jun</option>
<option value=7>Jul</option>
<option value=8>Aug</option>
<option value=9>Sep</option>
<option value=10>Oct</option>
<option value=11>Nov</option>
<option value=12>Dec</option></select>

<select name=ExpiryYear>
<option value=02>2002</option>
<option value=03>2003</option>
<option value=04>2004</option>
<option value=05>2005</option>
<option value=06>2006</option></select></td></tr>
<tr><td>Start Date</td><td>

```



```
<select name=StartMonth>
<option value=1>Jan</option>
<option value=2>Feb</option>
<option value=3>Mar</option>
<option value=4>Apr</option>
<option value=5>May</option>
<option value=6>Jun</option>
<option value=7>Jul</option>
<option value=8>Aug</option>
<option value=9>Sep</option>
<option value=10>Oct</option>
<option value=11>Nov</option>
<option value=12>Dec</option></select>
```

```
<select name=StartYear>
<option value=96>1996</option>
<option value=97>1997</option>
<option value=98>1998</option>
<option value=99>1999</option>
<option value=00>2000</option>
<option value=01>2001</option>
<option selected value=2002>2002</option></select>
```

```
</td></tr><tr><td>
Card Type</td><td><INPUT TYPE='radio' NAME='CardType' VALUE='VM' CHECKED> Visa
/Mastercard
```

```
<INPUT TYPE='radio' NAME='CardType' VALUE='S'> Switch
</td></tr></table>
<input type=submit value=Authorise>
</form>
</body>
</html>
```

If a transaction is successful (the card details were okay, the money was successfully allocated and the order is then completed), the user will be shown the web page specified using the AuthOK hidden field if it was provided. (i.e. `<input type=hidden name=AuthOK value="https://www.yourdomain.com/thankyou.asp">`)

Alternatively, a failed transaction will divert them to the AuthNotOK location (if it was provided) (i.e. `<input type=hidden name=AuthNotOK value="https://www.yourdomain.com/sorry.asp">`)

Please note that with both AuthOK and AuthNotOK, because the pages are called from the Secure Skypay transaction server, any graphics included on the page should be referenced by the full URL (i.e. do not have `` but instead have ``). If you store the AuthOK or AuthNotOK pages on a non secure server (i.e. http not https) then your user may see a browser message advising them that not all content is secure on the page. This can be remedied by moving these pages into the same secure area where your card form is situated. If you do not use any graphics on these pages your users will not see this browser warning.

In the AuthNotOK scenario, you will need to identify what went wrong with the transaction, inform the user and allow them to go back to resubmit their order request. To identify what went wrong with the transaction, we return a code, which informs your web site of the problem.

There is an example on the skypay website which shows you the simplicity of setting up a SkyPay form.

Transaction Not Authorised Message Codes

CARD DECLINED	Transaction has been declined by acquiring bank
CARD EXPIRED	Card is out of date
CARD REFERRED	Transaction has been referred (assume decline)
INVALID CARD NUMBER	Card number is not valid
RESPONSE CODE <response code>	Unrecognised response code from acquirer authorisation host
ADDRESS OUT OF BOUNDS	Address cannot exceed 200 characters
AMOUNT MISSING	Amount not supplied
AMOUNT NOT NUMERIC	Amount is not a numeric value
AMOUNT NOT INTEGER	Amount is not an integer value
AMOUNT OUT OF BOUNDS	Amount is not within a valid range
AUTHORISATION REJECTED BY HOST	Cannot complete authorisation – rejected by acquiring bank
CARD NOT ACCEPTED	Card type is not accepted by the gateway for this Merchant account
CARD NUMBER NOT NUMERIC	CardNumber is not a numeric value
CARD PRE VALID	Card is not yet valid, determined by StartMonth and StartYear
CARD TYPE NOT FOUND	Unable to determine card type from supplied CardNumber
CARD TYPE NOT SUPPORTED	Card type is not valid for merchant access to gateway
COUNTRY NOT NUMERIC	CountryCode is not a numeric value
COUNTRY OUT OF BOUNDS	CountryCode is not within a valid range
COUNTRY NOT INTEGER	CountryCode is not an integer value
CURRENCY CODE MISSING	CurrencyCode not supplied
CURRENCY NOT ACCEPTED	CurrencyCode is not valid for merchant account
CURRENCY NOT NUMERIC	CurrencyCode is not a numeric value
CURRENCY OUT OF BOUNDS	CurrencyCode is not within a valid range
CURRENCY NOT INTEGER	CurrencyCode is not an integer value range
CLICKED TWICE	The user double clicked the submit button in the authorisation script. Normally a user can double click your authorisation button without generating 2 transaction requests, but if the bank network is running slow, a “double clicker” may see this message.
DUPLICATE TRANSACTION	Transaction rejected due to identical transaction being authorised within the last few minutes
EMAIL ADDRESS OUT OF BOUNDS	Email Address cannot exceed 50 characters
INVALID MERCHANT	Merchant account not set-up on gateway or MerchantNo not passed through in form
ISSUE NUMBER MISSING	Issue Number required for card type
ISSUE NUMBER NOT NUMERIC	Issue Number is not a numeric value
ISSUE NUMBER OUT OF BOUNDS	Issue Number is not within a valid range
ISSUE NUMBER NOT INTEGER	Issue Number is not an integer value
ISSUE NUMBER WRONG LENGTH	Incorrect number of Issue No digits for card type
MONTH NOT NUMERIC	ExpiryMonth is not a numeric value
MONTH OUT OF BOUNDS	ExpiryMonth is not between 1 and 12
MONTH NOT INTEGER	ExpiryMonth is not an integer value
NAME OUT OF BOUNDS	Card Holder Name cannot exceed 50 characters
PARAMETER MISSING: xxxxxxx	The Required xxxxxx Parameter is missing.
PHONENUMBER TOO LONG	Optional PhoneNumber cannot exceed 30 chars
START YEAR NOT NUMERIC	StartYear is not a numeric value
START YEAR OUT OF BOUNDS	StartYear is not within a valid range

START YEAR NOT INTEGER	StartYear is not an integer value
START DATE REQUIRED	StartMonth and StartYear required for the card type
UNSUPPORTED OPERATION	Authorisation cannot proceed due to scheme restrictions. For example: attempting to authorise an Electron card (Cardholder Present only) in a Cardholder Not Present (CNP) environment
YEAR NOT NUMERIC	ExpiryYear is not a numeric value
YEAR OUT OF BOUNDS	ExpiryYear is not within a valid range
YEAR NOT AN INTEGER	ExpiryYear is not an integer value.

Finally, if you choose to activate the address and card verification value checking, you may receive a response back of

ADDRESS OR CARD DETAILS MISMATCH

Which indicates to the user that either the address they entered is incorrect, or the Card Verification Value is incorrect.

Using the AuthNotOK url facility, you can therefore use whichever scripting language you feel comfortable with and use the following pseudo code:

```
If (message = "ISSUE NUMBER MISSING")
    Print "Unfortunately you didn't provide an issue number, press Back and try again"
```

```
If (message = "CARD EXPIRED")
    Print "Unfortunately your card has expired, press Back and try again"
```

Etc.

Many of the options being passed in as hidden parameters (such as MerchantNo, AuthOK, AuthNotOK etc) can be replaced with a simple CheckoutID parameter. By using the Skypay merchant interface, a "checkout" can be created which holds most of this information in. By passing in the CheckoutID, Skypay will then pick up the details that you have provided within the Skypay control centre so that the user doesn't see that information if they choose to view the source of your web page. Using CheckoutID's also enable you to increase the security of the transaction process in other ways, such as encrypting the Order and Amount information, although the details of how order details can be further secured can only be shown on the checkout page after you have signed up, for security reasons.

Advanced Handling

Address and Card Verification

The new bank security options of Address and Card verification are very useful security measures. However you may decide that your clients may not understand certain elements of the checking procedure and you may think that by activating them you will lose orders because people type in a badly formed address for example.

When signing up with skypay, you can advise us how you want the AVSCV2 handled. It can go from the extreme of requiring both checks to pass to accept the transaction, to reject if either one or the other fails but the other passes, or to not reject at all, even if the information is invalid. In all cases, your skypay email receipt and the skypay transaction log within the control centre will report the result of the check, so you may choose to contact the customer for further proof before you process their order. If they cannot give proof, you can refund their transaction amount and save yourself chargeback costs later on when the real owner of the card complains. It is possible to use the AVSCV2 for LATER dispatch transactions too, so

you can check the validity of the card without taking the money and then go to the skypay control centre later to allocate the money once you know all is well. You can request the setting be changed at any point, so you may choose to just be notified of the validation checks initially to see how many fail the checks and if most people pass, you may chose to then reject people if they do fail, knowing that it wont affect "good" orders.

Using AuthOKCode

Occasionally you might need to write a checkout page that has to run some code after the transaction has been successful but don't wish to include it in the AuthOK page. In these cases, you can use the AuthOKCode parameter.

After a successful transaction has been performed, Skypay can run a predefined URL script and will pass all non sensitive data to it that was passed into Skypay (i.e. most things except CardNumber, Start/Expiry dates and Issue Numbers and Order details). It will also pass in the cross-reference code and the authcode from the successful transaction so that you can, for example, update a database, if you passed through an order number that would then be passed onto the AuthOKCode URL. So, for example, you might use it to update a database before they get to the thankyou page. The maximum execution time set for running the AuthOKCode is 15 seconds. This has 2 benefits. Firstly, if the server on which the script is running is not contactable, the user is not kept waiting, thinking there is a transaction problem, and secondly, no inline process should take more than a couple of seconds to run ideally anyway, so 15 seconds is more than adequate.

Choosing not to provide AuthOK and AuthNotOK

Skypay can be configured in many different ways.

It can handle simple taking of money and showing a "thankyou" page or a "sorry, funds couldn't be taken" page, as has just been described in the previous section, but if you have the scripting skills or can gain access to these skills from someone else (the development team at skypay or an authorised skypay integrator), you can POST the parameters through to the authorisation script programmatically, and get a result back programmatically, without having to redirect to a web page.

If neither the AuthOK nor the AuthNotOK was provided, the resultant transaction results would be shown on screen. This is very useful if the authorisation script is called by running a utility such as "curl" on Linux you can then "read" the authorisation screen output to identify the information returned.

A failed call will have the word FAILED, followed by a comma and then the error code reported (shown on previous pages in this guide) whereas a successful call will return the word SUCCESSFUL followed by a comma and then the authorisation code, returned by the relevant merchant service provider and our "cross reference" number – a unique number used to identify the transaction within the SkyPay system. The next piece of information will be either blank or will contain the result of the Address Verification Service check / Card Verification Value check, if a check was requested.

So a Successful transaction may return (for example)

SUCCESSFUL,05262, 6782398238792378923,ALL DATA MATCHES

and a failed transaction

FAILED,CARD NUMBER INVALID

This means that if you choose not to use either of the two website redirection pages, you can identify whether it was successful by parsing the authorisation output and checking if the first parameter is the word SUCCESSFUL – if its not, the process failed in some way.

Please note that in future we may add functionality in terms of extra parameters being passed back, although all existing information will be output in the same order.

Test Card

If you wish to test the system, we have a test Visa Credit card number of

5301 2500 7000 0191

With an expiry date of 06/04

The card belongs to

Martin Brewster
25 The Larches
Narborough
Leicestershire
LE10 2RT

And has a security code on the back of the card (the CV2) of 419

Test transactions are authorised (or not) based on the value of the transaction – this is so that you can confirm with 3 different messages back that your system is working correctly..

Values up to £49.99 will be accepted,

Values between £50 and £99.99 will be "CARD REFERRED"

Values from £100 + the card will be CARD DECLINED,