



HOSTED

INTEGRATION GUIDE

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1 Hosted Form Integration

1.1 About This Guide

The CardPayGo Hosted Form Integration method requires the merchant (or the merchant's web developer) to have knowledge of server side scripting languages (e.g. PHP, ASP etc.), although less so than the Direct method. Unlike the Direct method, the merchant's website does not need to have a SSL Certificate, and PCI compliance becomes more straightforward.

If you wish to process card details on your own website, or style the payment pages of your website, you either need to use the Direct integration method or request a Custom Hosted Form for your business.

1.2 CardPayGo Integration Disclaimer

CardPayGo provides all integration documentation necessary for enabling merchant clients to process payments via our Payment Gateway. Whilst every effort has been made to ensure these guides are accurate and complete, we expect Merchants undertaking any integration to test all their technical work fully and satisfy their own standards. CardPayGo is not responsible or liable for any Merchant or Third Party integration.

1.3 New Customers Testing

New customers who have not yet received their live Merchant ID can still perform an integration for testing purposes. Simply enter one of the below Test Merchant IDs and then use the CardPayGo test cards to run a test transaction.

Standard Visa and MasterCard Testing use **103223**
3D Secure Testing use **103224**

This guide provides the information required to integrate with CardPayGo, and gives a very basic example of code for doing so. It is expected that the Merchant, or the Merchant's developers, have some experience in server side scripting with languages such as PHP or ASP, or that an off-the-shelf software package is being used that has in-built CardPayGo integration support.

If you do require programming assistance, please contact CardPayGo on 0330 35 00 540 or via email to support@cardpaygo.com.

1.4 Pre-Requisites

You will need the following information to integrate with CardPayGo Hosted Forms.

CardPayGo Merchant ID	<p>Your Merchant ID enables you to access and communicate with the payment gateway. Please note that these details will differ to the login details supplied to access the Merchant Management System. You should have received these details when your account was set up.</p> <p>You may also use test account IDs (listed above) and swap these for your live account details when you receive them.</p>
Integration URL	https://app.cardpaygo.com/paymentform/

1.5 3D Secure

If your merchant account is enrolled with 3D Secure, the hosted form method will automatically attempt to perform 3D Secure transactions. If the customer's card is not participating in 3D Secure then the transaction will be processed as normal, otherwise it will take the customer through the 3D Secure authentication process.

You can choose how to deal with 3D Secure transactions that fail authentication – either declining the transaction or continuing without 3D Secure protection. These preferences are set in the Merchant Management System.

1.6 Test Cards

For the latest copy of the test cards, for both 3D Secure and non 3D Secure transactions, please see Appendix A-6 & A-7 below.

2 Gateway Request

Your website will need to send the request details to the integration URL via an HTTP POST request. The details should be URL encoded Name=Value fields separated by ‘&’ characters (refer to RFC 1738 and the application/x-www-form-urlencoded media type).

For example, you might create an HTML form to collect the customer information (without card details), then use hidden fields to post the other options.

Please note that the field names are cAsE sEnSiTiVe.

2.1 General Fields

Field Name	Mandatory?	Description
merchantID	Yes	Your CardPayGo Merchant user ID, or “103223” if you are just testing.
merchantPwd	No *	The password you have configured for the merchantID. This is set within the MMS <small>* Using this field may result in your password being visible in plain text within the source code.</small>
signature	Yes	The hash used to sign the transaction request.
amount	Yes	The amount of the transaction in minor currency. For the UK, this is pence, so £10.99 should be sent as 1099. Numeric values only – no decimal points or currency symbols.
action	Yes	The transaction action. Possible values are: PREAUTH This will reserve an amount from the customer’s card but not collect them. For a period of up to 5 days (depending on the card issuing bank) after the transaction is placed, you can place a subsequent transaction with an action of SALE and the xref value returned from the first transaction in order to collect the previously reserved funds – This subsequent transaction is usually preformed using a direct integration. If the period of time between the first and second transactions is greater than the card issuing bank

		<p>reserves the funds for, then new, unreserved funds will be taken from the cardholders account.</p> <p>SALE</p> <p>This will collect an amount from the customer's card.</p>
type	Yes	<p>The type of transaction.</p> <p>Possible values are:</p> <ul style="list-style-type: none"> 1 - Cardholder Not Present: Ecommerce. 2 - Cardholder Not Present: Mail Order. 3 - Point of Sale: Card Keyed. 4 - Point of Sale: Card Swiped. 5 - Point of Sale: Card Chip & Pin.
countryCode	Yes	ISO standard country code for the merchant's location.
currencyCode	Yes	ISO standard currency code for this transaction. You may only use currencies that are enabled for your merchant account.
transactionUnique	No	A unique identifier for this transaction. This should be set by your website or shopping cart. This is an added security feature to combat transaction spoofing.
orderRef	No	This text field allows you to describe the order or provide an invoice number/reference number for the merchant's records.

2.2 Redirection and Verification Fields

The Hosted Form, after completion, will redirect the customer to the **redirectURL**, which will be called with POST data attached. Since this POST could conceivably be forged by a malicious user, it is a good idea to also supply a **callbackURL**. If supplied, the Hosted Form will POST the same transaction result data to the Callback URL in the background. This background page should be used to update your database.

Field Name	Mandatory?	Description
redirectURL	Yes	The URL to which the customer will be redirected and the transaction result will be POSTed.
callbackURL	No (Recommended)	A non-public URL which will receive a copy of the transaction result by POST.

2.3 Customer Details Fields

Customer details are optional by default, however if the merchant has chosen to require AVS checking in their preferences, then **customerAddress** and **customerPostCode** become mandatory. All data is stored and accessible within the administration panel.

Field Name	Mandatory?	Description
customerName	No	The customer or cardholder's name.
customerAddress	Yes, if AVS enabled	The customer or cardholder's address. For AVS checking this must be the registered billing address of the card.
customerPostCode	Yes, if AVS enabled	The customer or cardholder's post code. For AVS checking this must be the registered billing post code of the card.
customerEmail	No	The customer's email address.
customerPhone	No	The customer's telephone number.

2.4 American Express and Diners Card Fields

American Express or Diners Card cards require additional information about the customer's purchase to be posted to the hosted form. Only one order line needs to be entered. For other card types all items are optional and will be stored for reference purpose only.

Field Name	Mandatory?	Description
<code>item1Description</code>	Yes [†]	A short text description of the item.
<code>item1Quantity</code>	Yes [†]	The quantity of the item purchased.
<code>item1GrossValue</code>	Yes [†]	The gross, or tax inclusive, value of this order line.
<code>item2Description</code>	No	A short text description of the item.
<code>item2Quantity</code>	No	The quantity of the item purchased.
<code>item2GrossValue</code>	No	The gross, or tax inclusive, value of this order line.
<code>item3Description</code>	No	A short text description of the item.
<code>item3Quantity</code>	No	The quantity of the item purchased.
<code>item3GrossValue</code>	No	The gross, or tax inclusive, value of this order line.
<code>item4Description</code>	No	A short text description of the item.
<code>item4Quantity</code>	No	The quantity of the item purchased.
<code>item4GrossValue</code>	No	The gross, or tax inclusive, value of this order line.
<code>item5Description</code>	No	A short text description of the item.
<code>item5Quantity</code>	No	The quantity of the item purchased.
<code>item5GrossValue</code>	No	The gross, or tax inclusive, value of this order line.

[†]These fields are only mandatory if an American Express or Diners Card is used for payment.

With American Express or Diners Cards you may also provide tax **or** discount information. Once again for other cards types any values provided will be stored for reference purposes only.

Field Name	Mandatory?	Description
taxValue	No	The total amount of tax for this order.
taxDiscountDescription	No	A text field to describe the tax applied (e.g. "VAT at 20%")

OR

Field Name	Mandatory?	Description
discountValue	No	The total amount of discount applied to this order.
taxDiscountDescription	No	A text field to describe the discount applied.

2.5 Merchant Data Field

The merchant may send arbitrary data with the request by appending extra fields which will be returned in the response unmodified. These extra fields are merely 'echoed' back and not stored by CardPayGo.

However the Merchant can put extra information that should be stored into a **merchantData** field. Associative data can be serialised using the notation **merchantData [name] =value**.

Field Name	Mandatory?	Description
merchantData	No	Arbitrary data to be stored along with this transaction.

3 Gateway Response

The CardPayGo Hosted Form method returns data to the Redirect URL (and Callback URL, if supplied) via an HTTP POST request. The details are sent URL encoded Name=Value fields separated by ‘&’ characters (refer to RFC 1738 and the application/x-www-form-urlencoded media type).

The fields initially sent to the integration URL are returned and in addition the following fields may be returned.

Please note that the field names are cAsE sEnSiTiVe.

3.1 Response Fields

Field Name	Returned?	Description
responseCode	Always	<p>A numeric code providing the outcome of the transaction.</p> <p>Possible values are:</p> <p>0 - Successful / authorised transaction. 2 - Card referred. 4 - Card declined – keep card 5 - Card declined.</p> <p>Check responseMessage for more detail or any error that occurred.</p> <p>For a full list of error codes please refer to the table in Appendix A.</p>
responseMessage	Always	The message received from the acquiring bank, or any error message.
signature	Always	The hash used to sign the transaction reply.
xref	Always	The merchant may store the cross reference for repeat transactions and refunds.
transactionUnique	If supplied	The value supplied in the initial request, if any.
amountReceived	On success	The amount of the transaction. This field used in conjunction with transactionUnique can help provide a measure of security.
transactionID	Always	The ID of the transaction on the CardPayGo system – can be used to easily reconcile transactions in the administration panel.

orderRef	If supplied	The value supplied in the initial request, if any.
avscv2ResponseCode	Optional	The result of the AVS/CV2 check. Please see Appendix A-4 for a full list of possible responses.
avscv2ResponseMessage	Optional	The message received from the acquiring bank, or any error message with regards to the AVS/CV2 check. Please see Appendix A-4 for a full list of possible responses.
cv2Check	Optional	Textual description of the AVS/CV2 CV2 check as described in Appendix A-4. Possible values are: 'not known', 'not checked', 'matched', 'not matched', 'partially matched'
addressCheck	Optional	Textual description of the AVS/CV2 address check as described in Appendix A-4. Possible values are: 'not known', 'not checked', 'matched', 'not matched', 'partially matched'
postcodeCheck	Optional	Textual description of the AVS/CV2 postcode check as described in Appendix A-4. Possible values are: 'not known', 'not checked', 'matched', 'not matched', 'partially matched'
avscv2AuthEntity	Optional	Textual description of the AVS/CV2 authorizing entity. Possible values are: 'not known', 'merchant host', 'acquirer host', 'card scheme', 'issuer'
cardNumberMask	Always	Card number masked so only the last 4 digits are visible - for example: *****1234
cardTypeCode	Always	The code of card used. See appendix A-2 for a full list.
cardType	Always	The description of the card used. See Appendix A-2 for a full list.

3.2 3D Secure Fields

When a 3D Secure transaction is processed then the following additional fields may be returned.

Field Name	Returned?	Description
threeDSEnabled	Yes	<p>The 3D Secure status of the merchant account.</p> <p>Possible values are: N – the merchant is not 3DS enabled Y – the merchant is 3DS enabled</p>
threeDSEnrolled	Yes	<p>The 3D Secure enrolment status for the credit card.</p> <p>Possible values are: Y - Enrolled. N - Not Enrolled. U - Unable To Verify E - Error Verifying Enrolment.</p> <p>Refer to Appendix 3.2A-4 for further information.</p>
threeDSAuthenticated	No	<p>The 3D Secure authentication status for the credit card.</p> <p>Possible values are: Y - Authentication Successful. N - Not Authenticated. U - Unable To Authenticate. A - Attempted Authentication. E - Error Checking Authentication.</p> <p>Refer to Appendix 3.2A-4 for further information.</p>
threeDSPaReq	No	<p>Payer Authentication Request (PaReq) that is sent to the Access Control Server (ACS) in order to verify the 3D Secure status of the credit card.</p>
threeDSPaRes	No	<p>Payer Authentication Response (PaRes) that is returned from the Access Control Server (ACS) determining the 3D Secure status of the credit card.</p>
threeDSACSURL	No	<p>The URL of the Access Control Server (ACS) to which the Payer Authentication Request (PaReq) should be sent.</p>
threeDSECI	No	<p>This contains a two digit Electronic Commerce Indicator (ECI) value, which is to be submitted in a credit card authorization message.</p> <p>This value indicates to the processor that the</p>

		<p>customer data in the authorization message has been authenticated.</p> <p>The data contained within this property is only valid if the threeDSAuthenticated value is Y or A.</p>
threeDSCAVV	No	<p>This contains a 28-byte Base-64 encoded Cardholder Authentication Verification Value (CAVV).</p> <p>The data contained within this property is only valid if the threeDSAuthenticated value is Y or A.</p>
threeDSCAVVAlgorithm	No	<p>This contains the one digit value which indicates the algorithm used by the Access Control Server (ACS) to generate the CAVV.</p> <p>Valid algorithms include (amongst others): 0 - HMAC 1 - CVV 2 - CVV with ATN</p> <p>The data contained within this property is only valid if the threeDSAuthenticated value is Y or A.</p>
threeDSXID	No	<p>A unique identifier for the transaction as used in the 3D Secure process. This is normally a 20 character string.</p>
threeDSErrorCode	No	<p>Any error response code returned by the 3D Secure Access Control Server (ACS) should there be an error in determining the cards 3D Secure status.</p>
threeDSErrorDescription	No	<p>Any error response description returned by the 3D Secure Access Control Server (ACS) should there be an error in determining the cards 3D Secure status.</p>
threeDSMerchantPref	No	<p>Any merchant 3D Secure preference used to block or allow this transaction should the card not be authorized. These preferences can be set in the merchant control panel.</p>
threeDSVETimestamp	No	<p>The time the card was checked for 3D Secure enrolment.</p>
threeDSCATimestamp	No	<p>The time the card was checked for 3D Secure authentication.</p>

A-1 Response Codes

The gateway will always issue a **responseCode** to report the status of the transaction. These codes should be used rather than the **responseMessage** field to determine the outcome of a transaction.

A zero response code always indicates a successful outcome.

Response codes are grouped as follows, the groupings are for informational purposes only and not all codes in a group are used;

Acquirer (FI) Error codes: 1-99	
Code	Description
0	Successful / authorised transaction. Any code other than 0 indicates an unsuccessful transaction
2	Card referred
4	Card declined – keep card
5	Card declined
30	An error occurred. Check responseMessage for more detail

General Error Codes: 65536 - 65791	
Code	Description
65536	Transaction in progress. Refer to CardPayGo if this error occurs
65537	Reserved for future use. Refer to CardPayGo if this error occurs
65538	Reserved for future use. Refer to CardPayGo if this error occurs
65539	Invalid Credentials: merchantID is unknown
65540	Permission denied: caused by sending a request from an unauthorized IP address
65541	Reserved for future use. Refer to CardPayGo if this error occurs
65542	Request Mismatch: fields sent while completing a request do not match initially requested values. Usually due to sending different card details when completing a 3D Secure transaction to those used to authorise the transaction
65543	Request Ambiguous: request could be misinterpreted due to inclusion of mutually

	exclusive fields
65544	Request Malformed: couldn't parse the request data
65545	Suspended Merchant account
65546	Currency not supported by Merchant
65547	Request Ambiguous, both taxValue and discountValue provided when should be one only
65548	Database error
65549	Payment processor communications error
65550	Payment processor error
65551	Internal communications error
65552	Internal error

3D Secure Error Codes: 65792 - 66047	
Code	Description
65792	3D Secure transaction in progress. Refer to CardPayGo if this error occurs
65793	Unknown 3D Secure Error
65794	3D Secure processing is unavailable. Merchant account doesn't support 3D Secure
65795	3D Secure processing is not required for the given card
65796	3D Secure processing is required for the given card
65797	Error occurred during 3D Secure enrolment check
65798	Reserved for future use. Refer to CardPayGo if this error occurs
65799	Reserved for future use. Refer to CardPayGo if this error occurs
65800	Error occurred during 3D Secure authentication check
65801	Reserved for future use. Refer to CardPayGo if this error occurs
65802	3D Secure authentication is required for this card
65803	3D Secure enrolment or authentication failure and Merchant 3DS preferences are to STOP processing

Missing Request Field Error Codes: 66048 - 66303	
Code	Description
66048	Missing request. No data posted to integration URL
66049	Missing merchantID field
66050	Reserved for future use. Refer to CardPayGo if this error occurs.
66051	Reserved for internal use. Refer to CardPayGo if this error occurs
66052	Reserved for internal use. Refer to CardPayGo if this error occurs
66053	Reserved for internal use. Refer to CardPayGo if this error occurs
66054	Reserved for internal use. Refer to CardPayGo if this error occurs
66055	Missing action field
66056	Missing amount field
66057	Missing currencyCode field
66058	Missing cardNumber field
66059	Missing cardExpiryMonth field
66060	Missing cardExpiryYear field
66061	Missing cardStartMonth field (reserved for future use)
66062	Missing cardStartYear field (reserved for future use)
66063	Missing cardIssueNumber field (reserved for future use)
66064	Missing cardCVV field
66065	Missing customerName field
66066	Missing customerAddress field
66067	Missing customerPostCode field
66068	Missing customerEmail field
66069	Missing customerPhone field (reserved for future use)
66070	Missing countyCode field

66071	Missing transactionUnique field (reserved for future use)
66072	Missing orderRef field (reserved for future use)
66073	Missing remoteAddress field (reserved for future use)
66074	Missing redirectURL field
66075	Missing callbackURL field (reserved for future use)
66076	Missing merchantData field (reserved for future use)
66077	Missing origin field (reserved for future use)
66078	Missing duplicateDelay field (reserved for future use)
66079	Missing itemQuantity field (reserved for future use)
66080	Missing itemDescription field (reserved for future use)
66081	Missing itemGrossValue field (reserved for future use)
66082	Missing taxValue field (reserved for future use)
66083	Missing discountValue field (reserved for future use)
66084	Missing taxDiscountDescription field (reserved for future use)
66085	Missing xref field (reserved for future use)
66086	Missing type field (reserved for future use)
66087	Reserved for future use
66088	Reserved for future use
66089	Missing transactionID field (reserved for future use)
66090	Missing threeDSRequired field (reserved for future use)
66091	Missing threeDSMD field (reserved for future use)
66092	Missing threeDSPaRes field
66093	Missing threeDSECI field
66094	Missing threeDSCAVV field
66095	Missing threeDSXID field

Invalid Request Field Error Codes: 66304 - 66559	
Code	Description
66304	Invalid request
66305	Invalid <code>merchantID</code> field
66306	Reserved for future use. Refer to CardPayGo if this error occurs
66307	Reserved for internal use. Refer to CardPayGo if this error occurs
66308	Reserved for internal use. Refer to CardPayGo if this error occurs
66309	Reserved for internal use. Refer to CardPayGo if this error occurs
66310	Reserved for internal use. Refer to CardPayGo if this error occurs
66311	Invalid <code>action</code> field
66312	Invalid <code>amount</code> field
66313	Invalid <code>currencyCode</code> field
66314	Invalid <code>cardNumber</code> field
66315	Invalid <code>cardExpiryMonth</code> field
66316	Invalid <code>cardExpiryYear</code> field
66317	Invalid <code>cardStartMonth</code> field
66318	Invalid <code>cardStartYear</code> field
66319	Invalid <code>cardIssueNumber</code> field
66320	Invalid <code>cardCVV</code> field
66321	Invalid <code>customerName</code> field
66322	Invalid <code>customerAddress</code> field
66323	Invalid <code>customerPostCode</code> field
66324	Invalid <code>customerEmail</code> field
66325	Invalid <code>customerPhone</code> field
66326	Invalid <code>countyCode</code> field

66327	Invalid transactionUnique field (reserved for future use)
66328	Invalid orderRef field (reserved for future use)
66329	Invalid remoteAddress field
66330	Invalid redirectURL field
66331	Invalid callbackURL field (reserved for future use)
66332	Invalid merchantData field (reserved for future use)
66333	Invalid origin field (reserved for future use)
66334	Invalid duplicateDelay field (reserved for future use)
66335	Invalid itemQuantity field
66336	Invalid itemDescription field
66337	Invalid itemGrossValue field
66338	Invalid taxValue field
66339	Invalid discountValue field
66340	Invalid taxDiscountDescription field (reserved for future use)
66341	Invalid xref field
66342	Invalid type field
66343	Reserved for future use
66344	Reserved for future use
66345	Invalid transactionID field
66356	Invalid threeDSRequired field
66347	Invalid threeDSMD field
66348	Invalid threeDSPaRes field
66349	Invalid threeDSECI field
66350	Invalid threeDSCAVV field
66351	Invalid threeDSXID field

66416	Invalid card expiry date. Must be a date sometime in the next 10 years
66417	Invalid card start date. Must be a date sometime in the last 10 years
66418	Invalid item count. Tried to supply more than 6 line item details
66419	Invalid item sequence. Out of sequence line item details

A-2 Types of card

The following is a list of card types which may be returned by the gateway.

Card Code	Card Type
AM	American Express
CF	Clydesdale Financial Services
DI	Diners Club
EL	Electron
JC	JCB
MA	International Maestro
MC	Mastercard
SO	Solo
ST	Style
SW	Domestic Maestro (Formerly Switch)
VC	Visa Credit
VD	Visa Debt
VP	Visa Purchasing

A-3 AVS / CV2 Check Response

The AVS/CV2 Check Response Message field **avscv2ResponseMessage** is sent back in the raw form that is received from the acquiring bank and can contain the following values:

Response	Description
ALL MATCH	AVS and CV2 match.
SECURITY CODE MATCH ONLY	CV2 match only.
ADDRESS MATCH ONLY	AVS match only.
NO DATA MATCHES	No matches for AVS and CV2.
DATA NOT CHECKED	Supplied data not checked.
SECURITY CHECKS NOT SUPPORTED	Card scheme does not support checks.

The AVS/CV2 Response Code **avscv2ResponseCode** is made up of six characters and is sent back in the raw form that is received from the acquiring bank. The first 4 characters can be decoded as below, the remaining 2 characters are currently reserved for future use:

Position 1 Value	Description
0	No additional information available.
1	CV2 not checked.
2	CV2 matched.
4	CV2 not matched.
8	Reserved.

Position 2 Value	Description
0	No additional information available.
1	Postcode not checked.
2	Postcode matched.
4	Postcode not matched.
8	Postcode partially matched.

Position 3 Value	Description
0	No additional Information.
1	Address numeric not checked.
2	Address numeric matched.
4	Address numeric not matched.
8	Address numeric partially matched.

Position 4 Value	Description
0	Authorising entity not known.
1	Authorising entity – merchant host.
2	Authorising entity – acquirer host.
4	Authorising entity – card scheme.
8	Authorising entity – issuer.

A-4 3D Secure Enrolment/Authentication Codes

The 3D Secure enrolment check field **threeDSEnrolled** can return the following values:

- Y - Enrolled:** The card is enrolled in the 3D Secure program and the payer is eligible for authentication processing.
- N - Not Enrolled:** The checked card is eligible for the 3D Secure (it is within the card association's range of accepted cards) but the card issuing bank does not participate in the 3D Secure program. If the cardholder later disputes the purchase, the issuer may not submit a chargeback to the merchant.
- U - Unable To Verify Enrolment:** The card associations were unable to verify if the cardholder is registered. As the card is ineligible for 3D Secure, merchants can choose to accept the card nonetheless and precede the purchase as non-authenticated and submits authorization with ECI 7. The Acquirer/Merchant retains liability if the cardholder later disputes making the purchase.
- E - Error Verify Enrolment:** The CardPayGo system encountered an error. This card is flagged as 3D Secure ineligible. The card can be accepted for payment, yet the merchant may not claim a liability shift on this transaction in case of a dispute with the cardholder.

The 3D Secure authentication check field **threeDSAuthenticated** can return the following values:

- Y - Authentication Successful:** The Issuer has authenticated the cardholder by verifying the identity information or password. A CAVV and an ECI of 5 is returned. The card is accepted for payment.
- N - Not Authenticated:** The cardholder did not complete authentication and the card should not be accepted for payment.
- U - Unable To Authenticate:** The authentication was not completed due to technical issues or another problem. A transmission error prevented authentication from completing. The card should be accepted for payment but no authentication data will be passed on to authorization processing and no liability shift will occur.
- A - Attempted Authentication:** A proof of authentication attempt was generated. The cardholder is not participating, but the attempt to authenticate was recorded. The card should be accepted for payment and authentication information passed to authorization processing.
- E - Error Checking Authentication:** The CardPayGo system encountered an error. The card should be accepted for payment but no authentication information will be passed to authorization processing and no liability shift will occur.

A-5 Example Code

The following example shows how to send the initial request using a HTML form to POST the data to the CardPayGo integration URL:

/myshop/orderconfirmation.php:

```
<?php
// PreShared Key entered on MMS. The demo accounts is fixed, but merchant accounts can
be updated from the MMS.
$pre_shared_key = "Remind37Most17Square";

$fields = array(
    "merchantID"      =>    "103223",
    "amount"          =>    "1050",
    "countryCode"     =>    "826",
    "currencyCode"    =>    "826",
    "transactionUnique" =>    "AZ2045-PY",
    "orderRef"        =>    "Groceries",
    "redirectURL"     =>    "http://www.shop.com/ordercomplete.php"
);

// Sort the array
ksort($fields);

?>
<form action="https://app.cardpaygo.com/paymentform/" method="post">
<input type="hidden" name="merchantID" value="103223" />
<input type="hidden" name="amount" value="1050" />
<input type="hidden" name="countryCode" value="826" />
<input type="hidden" name="currencyCode" value="826" />
<input type="hidden" name="transactionUnique" value="AZ2045-PY" />
<input type="hidden" name="orderRef" value="Groceries" />
<input type="hidden" name="redirectURL" value="http://www.shop.com/ordercomplete.php"
/>
<input type="hidden" name="signature" value="<?= hash("SHA512",
http_build_query($fields) . $pre_shared_key) ?>" />
<input type="submit" value="Pay Now" />
</form>
```

When the user submits the form their browser will be taken to the CardPayGo integration page at <https://app.cardpaygo.com/paymentform/> where the user will be given the option to enter their card details and billing address. If additional customer or transaction information is supplied in the HTTP POST request, then the values sent will be used to populate the initial values of the controls on the CardPayGo hosted form. When the customer submits this hosted form the transaction will be attempted and the results sent as a HTTP POST request to the specified **redirectURL** an example of which is given below:

/myshop/ordercomplete.php:

```
if( $_POST['responseCode'] === "0" ) {

    echo "<p>Thank you for your payment</p>";

}else{

    echo "<p>Failed to take payment: " . htmlentities($ POST['responseMessage']) .
"</p>";

}
```

A-6 Test Cards

The expiry date used for each test card should be December of the current year; in two digit format – E.g. 12/15 for December 2015

The authorisation response is dependent on the transaction amount:

Amount range from	Amount range to	Expected response
101 (£1.01)	4999 (£49.99)	AUTH CODE: XXXXXX
5000 (£50.00)	9999 (£99.99)	CARD REFERRED
10000 (£100.00)	14999 (£149.99)	CARD DECLINED
15000+ (£150.00+)		CARD DECLINED – KEEP CARD*

* If applicable to transaction / merchant / acquirer type

Visa Credit

Card Number	CVV Number	Address
4929421234600821	356	Flat 6 Primrose Rise 347 Lavender Road Northampton NN17 8YG
4543059999999982	110	76 Roseby Avenue Manchester M63X 7TH
4543059999999990	689	23 Rogerham Mansions 4578 Ermine Street Borehamwood WD54 8TH

Visa Debit

Card Number	CVV Number	Address
4539791001730106	289	Unit 5 Pickwick Walk 120 Uxbridge Road Hatch End Middlesex HA6 7HJ
4462000000000003	672	Mews 57 Ladybird Drive Denmark 65890

MasterCard Credit

Card Number	CVV Number	Address
5301250070000191	419	25 The Larches Narborough Leicester LE10 2RT
5413339000001000	304	Pear Tree Cottage The Green Milton Keynes MK11 7UY
5434849999999951	470	34a Rubbery Close Cloisters Run Rugby CV21 8JT
5434849999999993	557	4-7 The Hay Market Grantham NG32 4HG

MasterCard Debit

Card Number	CVV Number	Address
5573 4712 3456 7898	159	Merevale Avenue Leicester LE10 2BU

UK Maestro

Card Number	CVV Number	Address
6759 0150 5012 3445 002	309	The Parkway 5258 Larches Approach Hull North Humberside HU10 5OP
6759 0168 0000 0120 097	701	The Manor Wolvey Road Middlesex TW7 9FF

JCB

Card Number	CVV Number	Address
3540599999991047	209	2 Middle Wallop Merideth-in-the-Wolds Lincolnshire LN2 8HG

Electron

Card Number	CVV Number	Address
4917480000000008	009	5-6 Ross Avenue Birmingham B67 8UJ

American Express

Card Number	CVV Number	Address
374245455400001	4887	The Hunts Way Southampton SO18 1GW

Diners Club

Card Number
36432685260294

A-7 3D Secure Test Cards

3D Secure test cards for MasterCard using SecureCode

The expiry date used for each test card should be December of the current year; in two digit format – E.g. 12/15 for December 2015

Card Number	CVV Number	Address	Postcode	Amount	Test Scenario
503396198900000818	332	31	18	£11.01	Enrolled International Maestro account number – valid SecureCode (multiple cardholder). Select 'MEGAN SANDERS' with SecureCode password: secmegan1
5453010000070789	508	20	52	£11.02	Enrolled account number - valid SecureCode (single) SecureCode password: sechal1
5453010000070151	972	22	08	£11.03	Enrolled account number – mixed SecureCode (multi) SecureCode password: Hannah – sechannah1 (bad) Haley – sechaley1 (good)
5453010000070284	305	35	232	£11.04	Enrolled account number – invalid SecureCode Invalid SecureCode password: invseccode
5453010000084103	470	73	170	£11.05	Attempts processing
5453010000070888	233	1	248	£11.06	Account number not enrolled
5199992312641465	006	21	14	£11.07	Card range not participating

3D Secure test cards for Visa using Verified by Visa

The expiry date used for each test card should be December of the current year; in two digit format – E.g. 12/15 for December 2015

Card Number	CVV Number	Address	Postcode	Amount	Test Scenario
4909630000000008				£12.01	Card range not participating
401201000000000009				£12.02	Card registered with VbV (automated ACS response – click on Submit button)
4012001037141112	083	16	155	£12.03	Card registered with Visa (automated ACS response – click on Submit button)

4012001037484447	450	200	19	£12.04	Failed authentication – issuer database unavailable
4015501150000216				£12.05	Attempts processing (automated ACS response – click on Submit button)

A-8 Signing Your Request

A message can be signed by hashing the whole URL encoded Name=Value request string with a secret passphrase appended. This security passphrase can be configured on a per merchant account basis in the Merchant Management System (MMS).

Care must be taken to normalise any embedded line ending to just use a single New Line character (ascii character 10).

Various hashing algorithms are supported allowing you to choose the one most suitable for your integration language. SHA512 is the default and preferred, if using an algorithm other than SHA512 then the algorithm name should be pre-pended to the hash enclosed in braces.

The following algorithms are supported (from most secure to least secure order): SHA512, SHA256, SHA1, MD5, CRC32.

The hash must be sent in the signature field. This field must not be included in the message that is used to generate the hash.

Note: when a secret is configured for the merchant account then every message must be signed – failure to sign a message will cause it to be rejected due to a missing signature. The gateway will also sign any response and any details POSTed to any Callback URL using the same signature allowing the merchant to verify that any response has not been tampered with.